



Comprehensive Annual Financial Report

For the Year Ended December 31, 2001

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Comprehensive Annual Financial Report

For the Year Ended December 31, 2001



Ohio Police & Fire Pension Fund

William J. Estabrook, Executive Director
James E. Martin, Chief Financial Officer



Prepared through the combined efforts of the OP&F staff
140 E. Town Street, Columbus, Ohio 43215

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Comprehensive Annual Financial Report

For the Year Ended December 31, 2001

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Board of Trustees

Elected Members



Ken Gehring
Chairman
Toledo Fire Department
Term expires June 2, 2002



Robert Beck
Cleveland Police Department
Term expires June 7, 2005



Thomas Bennett
Chair-Elect
Dayton Police Department
Term expires June 1, 2003



David Harker
Dayton Fire Department
Term expires June 6, 2004



William Gallagher
Vice-Chair
Cleveland Police Department
(Retired)
Term expires June 1, 2003



Patrick Patton
Cleveland Fire Department
Term expires June 1, 2003

Statutory Members



Richard T. Balazs
Director of Finance
City of Euclid
Term expires June 30, 2005



Jim Petro
Auditor of State



Betty Montgomery
Attorney General

Administrative Staff



William J. Estabrook
Executive Director



James E. Martin
Chief Financial Officer



George Kaitsa
Chief Operating Officer



Kay Penn
Director of Member Services



Theodore G. Hall
Chief Investment Officer



Deborah D. Young
Director of Health Services Administration



Diane M. Lease
General Counsel

Professional Consultants

| Actuaries

Watson Wyatt Worldwide
(prior to December 31, 2001)
Segal Company
(beginning January 1, 2002)

| Independent Accountants

KPMG LLP

| Investment Consultants & Managers

See page 35

| Legal Counsel

Attorney General Betty Montgomery

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Ohio Police & Fire Pension Fund

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
December 31, 2000

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



Timothy Druwe
President

Jeffrey L. Esser
Executive Director

Letter of Transmittal



140 E. Town Street, Columbus, Ohio 43215

April 5, 2002

Dear Chairman and Members of the Board of Trustees:

We are pleased to submit to you the Comprehensive Annual Financial Report (CAFR) of the Ohio Police and Fire Pension Fund (OP&F) for the year ended December 31, 2001. This CAFR was prepared to aid interested parties in assessing OP&F's status at December 31, 2001, and its results for the year then ended.

The report is divided into five sections:

- (1) The Introductory Section contains this Letter of Transmittal, along with the identification of the administrative organization of OP&F and the Certification of Achievement for Excellence in financial Reporting;
- (2) The Financial Section includes the Independent Auditors' Report and the financial statements of the system;
- (3) The Investment Section contains the investment report, portfolio summary, and the investment policy and guidelines;
- (4) The Actuarial Section includes significant actuarial data pertaining to OP&F and the certification letter of Watson-Wyatt and results of their annual actuarial valuation; and
- (5) The Statistical Section includes historical data reporting progress of OP&F.

Accounting System and Internal Controls

The financial statements were prepared in accordance with generally accepted accounting principles in the United States of America applicable to governmental units, including the pronouncements of the Governmental Accounting Standards Board (GASB). Additional information on OP&F's significant accounting policies are contained in Note 1 of the Notes to the Combining Financial Statements in the Financial Section.

Management is responsible for establishing and maintaining an internal control structure designed to ensure that the assets of OP&F are protected from loss, theft or misuse and to ensure that adequate accounting data is compiled to allow for the preparation of combining 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 of 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.

Plan History and Overview

OP&F is a cost sharing multiple employer public employee retirement system and was created by the Ohio General Assembly in 1965, replacing 454 separate local police and firemen's relief and pension funds in Ohio. The statewide Fund began operating January 1, 1967. On that date the local pension funds transferred their assets and liabilities to OP&F. Assets transferred to OP&F totaled approximately \$75 million, while OP&F's actuary computed the liabilities accrued up to 1966 at approximately \$490 million. The remaining unfunded accrued liability is being paid by employers over a 67-year period, which began in 1969 and totaled nearly \$38.8 million as of December 31, 2001.

OP&F provides pension, disability and health care benefits to qualified participants, survivor and death benefits and health care benefits to qualified spouses, children and dependent parents. Please refer to the Plan Summary in the Actuarial Section for further information on plan benefits.

Membership in OP&F is mandatory under Ohio law for all full-time police officers employed by Ohio municipalities. Full-time fire fighters employed by townships, municipalities, township joint fire districts or other political subdivisions must become members of OP&F if satisfactory completion of a firefighter training course approved under former Section 3303.07, Section 4765.55 or conducted under Section 3737.33 of the Ohio Revised Code is required for employment. The table below is a tabulation of current participating employers at December 31, 2001:

Participating Employers

	<u>Police</u>	<u>Fire</u>
Municipalities	251	215
Townships	-	105
Villages	<u>322</u>	<u>32</u>
Total	<u>573</u>	<u>352</u>

Major Initiatives and Accomplishments

OP&F began a project to redesign our member information system and clean up member data. This is a multi-year project that will enhance service to our members and take us well into the future.

Many months were spent studying our health care costs, which have risen beyond predictions. Our analysis involved reviewing medical trends, forecast studies, the benefit recipient health care contribution schedule, and health care plan designs. The goal is to ensure that the Post-Employment Healthcare Fund remains solvent for 10 years, as required by the Board's Benefit Funding Policy.

Our Board adopted a revised retention schedule for OP&F business and member records. The new schedule follows a systematic retention and destruction plan based on legal requirements and business needs, which was developed after a lengthy study of OP&F records by staff and a consulting firm specializing in record retention. The previous retention schedule had been in place since 1985 and did not address computer-generated documentation, including e-mail or reports generated by OP&F's accounting and investment systems.

OP&F completed expansion of our offices to the lower level, 1st floor, and 9th floor of our headquarters at 140 East Town Street in Columbus Ohio. The space growth was necessary due to growth of membership and enhancement of service offerings. The 1st floor space includes a special member center designed specifically for member consultation with OP&F benefit counselors.

Two significant changes were made in professional services firms serving OP&F beginning with the 2002 calendar year. OP&F signed a 3-year contract with The Segal Company to fulfill OP&F's actuarial consulting needs beginning January 2002. Our former actuaries, Watson Wyatt Worldwide, were exiting the government pension market, necessitating the change. Our past auditors, Deloitte & Touche, completed a 10-year term in auditing our financial statements, which required a change under Ohio law. KPMG LLP was selected as our new auditors for the next five years.

The early payoff program relating to the employers' pre-1967 liabilities expired in May 2001. This early payoff program allowed employers to pay-off their pre-1967 liability at a discounted rate. During the life span of this program, this OP&F receivable decreased from over \$129 million at the end of 1999 to approximately \$53 million at the end of 2000. At the end of 2001, this amount decreased to \$38.8 million.

Senate Bill 134, which would allow OP&F to offer a Deferred Retirement Option Plan (DROP) to members, was passed

into law the beginning of 2002. OP&F staff is working diligently to prepare an administrative implementation plan, and hopes to beginning offering DROP to our members in early 2003.

Financial Overview

OP&F receives virtually all of its funds from the following sources: member contributions, employer contributions, retiree medical benefit contributions, state subsidies and reimbursements, and investment earnings. Additions to net assets totaled \$35,932,755 in 2001. The employee and employer contribution rates during 2001 remained unchanged from the prior year at 10% for employees, 19.5% for police and 24% for fire.

Additions to Plan Net Assets (in thousands)	2001	2000
	<u>Amount</u>	<u>Amount</u>
Net Investment Income	\$(443,461)	\$(165,141)
Contributions	472,423	458,627
Interest on Local Funds Receivable	1,873	3,200
Other	5,098	4,535
Total	<u>\$45,933</u>	<u>\$301,221</u>

Investment loss increased due to the continued decline in global equity markets in 2001. While the total portfolio did experience a difficult year, we outperformed our investment benchmark by 2¾%.

Deductions to Plan Net Assets (in thousands)	2001		2000	
	<u>Amount</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>
Benefits	\$621,572	92%	\$573,783	92%
Administrative Expenses	13,122	2	13,225	2
Discount on Early Payoff of Receivables	3,721	4	22,322	4
Refund of Employee Contributions	10,438	2	11,070	2
Other	1,051	0	713	0
Total	\$649,904	100%	\$621,113	100%

The early payoff program of employer pre-1967 liabilities expired in early 2001, resulting in a significant decrease in the discount on early payoff of receivables. Included in benefits expense are health care costs which increased 15%, largely due to the rising costs of prescription drugs.

Funding Practices and Actuarial Overview

Funds are derived from the excess of additions over deductions, and are accumulated by OP&F in order to meet current and future benefit obligations to retirees and beneficiaries. Due to unrealized losses in the investment portfolio, OP&F experienced a net loss in 2001, reducing net assets by approximately \$602 million.

Investment Policy

OP&F invests all available funds in order to maximize both current income yield and long-term appreciation.

The primary objective of OP&F's investment policy is to assure that OP&F 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 OP&F's assets with the least exposure to risk. OP&F's total rate of return on its investment portfolio decreased significantly due to the declining stock market, with a return of -3.88% in 2001, and -1.1% in 2000, as compared to 13.82% in 1999.

Details of portfolio composition, rates of return, analysis of significant economic conditions, and additional information concerning OP&F's investment policy are provided in the Investment Section.

Material Plan Amendments

There were no material plan amendments in 2001.

Independent Audit

KPMG LLP, independent certified public accountants, audited the financial statements of OP&F for the year ended December 31, 2001, and their opinion thereon is included in of the Financial Section.

Notes to the Combining Financial Statements

The notes to the combining financial statements, which follow the combining financial statements, contain additional information and are an integral part of such statements.

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to OP&F for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 2000. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting.

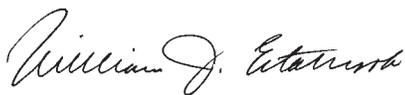
In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized Comprehensive Annual Financial Report, whose contents conform to program standards. Such reports must satisfy both accounting principles generally accepted in the United States of America and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement Program requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgments

The preparation of this report reflects the combined efforts of OP&F'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.

The cooperation of OP&F's employers is also very important to our success and is greatly appreciated.

Respectfully submitted,



William J. Estabrook
Executive Director



James E. Martin
Chief Financial Officer



Financial Section

Independent Auditor's Report

Combining Statement of Plan Net Assets

Combining Statement of Changes in Plan Net Assets

Notes to the Combining Financial Statements

Required Supplementary Information

1. Schedule of Funding Progress
2. Schedule of Employer Contributions
3. Notes to Required Supplemental Schedules

Additional Information

Administrative Expenses

Investment Expenses

Independent Auditor's Report



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Columbus, OH 43215-2568

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Fax 614 249 2348

Independent Auditors' Report

To the Board of Trustees of Ohio
Police and Fire Pension Fund:

We have audited the accompanying combining statements of plan net assets of Ohio Police and Fire Pension Fund (OP&F) as of December 31, 2001, and the related combining statements of changes in plan net assets for the year then ended. These financial statements are the responsibility of OP&F's management. Our responsibility is to express an opinion on these financial statements based on our audit. The accompanying combining statements of OP&F as of December 31, 2000, were audited by other auditors whose report thereon dated April 13, 2001, expressed an unqualified opinion on those financial statements.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of OP&F as of December 31, 2001, and the changes in plan net assets for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Our audit was performed for the purpose of forming an opinion on the combining financial statements of OP&F taken as a whole. The accompanying financial information listed as supplemental schedules in the foregoing table of contents, which is also the responsibility of the management of OP&F, is presented for the purpose of additional analysis and is not a required part of the combining financial statements of OP&F. Such additional information has been subjected to the auditing procedures applied in our audit of the combining financial statements for the year ended December 31, 2001 and, in our opinion, is fairly stated in all material respects when considered in relation to the basic 2001 combining financial statements taken as a whole.

In accordance with *Government Auditing Standards*, we have also issued a report dated May 13, 2002, on our consideration of OP&F's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grants. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

The statistical data on pages 60-63 is presented for the purpose of additional analysis and is not a required part of the combining financial statements of OP&F. Such additional information has not been subjected to the auditing procedures applied in our audit of the combining financial statements and, accordingly, we express no opinion on it.

KPMG LLP

May 13, 2002



KPMG LLP KPMG LLP, a U.S. limited liability partnership, is a member of KPMG International, a Swiss association.

Combining Statement of Plan Net Assets as of December 31, 2001 and 2000

2001

	Pensions	Postemployment Healthcare	Death Benefit Fund	2001 Total
Assets:				
Cash and Short-term Investments	\$ 309,416,673	\$ 8,845,921	\$ 13,640,695	\$ 331,903,289
Receivables:				
Employers' Contributions	57,064,635	30,628,683		87,693,318
Employees' Contributions	12,792,191			12,792,191
Accrued Investment Income	34,913,551	998,144		35,911,695
Investment Sales Proceeds	32,209,906	920,850		33,130,756
Local Funds Receivable	38,811,522			38,811,522
TOTAL RECEIVABLES	\$ 175,791,805	\$ 32,547,677		\$ 208,339,482
Investment, at fair value:				
Bonds	1,201,503,557	34,349,816		1,235,853,373
Mortgage & Asset Backed Securities	782,103,508	22,359,577		804,463,085
Stocks	3,837,667,827	109,715,185		3,947,383,012
Real Estate	563,152,428	16,099,978		579,252,406
Commercial Mortgage Funds	123,995,545	3,544,912		127,540,457
Private Equity	73,515,448	2,101,735		75,617,183
International Securities	1,400,657,196	40,043,426		1,440,700,622
Mortgage Note Receivables				
TOTAL INVESTMENTS	\$ 7,982,595,509	\$ 228,214,629		\$ 8,210,810,138
Collateral on Loaned Securities	1,062,448,486	30,374,367		1,092,822,853
Fixed Assets:				
Furniture and Equipment	26,146,521	747,504		26,894,025
Accumulated Depreciation	(4,683,184)	(133,888)		(4,817,072)
Total Fixed Assets	21,463,337	613,616		22,076,953
Prepaid Expenses and Other	781,108	22,331		803,439
TOTAL ASSETS	\$ 9,552,496,918	\$ 300,618,541	\$ 13,640,695	\$ 9,866,756,154
Liabilities:				
Medical Benefits Payable		12,834,603		12,834,603
Investment Commitments Payable	225,361,186	6,442,857		231,804,043
Accrued Administrative Expenses	7,030,776	201,004		7,231,780
Liabilities for Death Benefit Fund Benefits			13,640,695	13,640,695
Other Liabilities	6,320,936	180,709		6,501,645
Obligations Under Securities Lending	1,062,448,486	30,374,367		1,092,822,853
TOTAL LIABILITIES	\$ 1,301,161,384	\$ 50,033,540	\$ 13,640,695	\$ 1,364,835,619
Net assets held in trust for pension and postemployment healthcare benefits	\$ 8,251,335,534	\$ 250,585,001		\$ 8,501,920,535

(A schedule of funding progress is presented on page 24.)

See Notes to Combining Financial Statements

2000

Pensions	Postemployment Healthcare	Benefit Fund	2000 Total
\$ 332,900,088	\$ 9,908,901	\$ 12,311,771	\$ 355,120,760
58,810,946	30,015,073		88,826,019
12,956,931			12,956,931
30,485,438	907,411		31,392,849
43,538,983	1,295,955		44,834,938
53,036,223			53,036,223
\$ 198,828,521	\$ 32,218,439		\$ 231,046,960
1,192,238,103	35,487,431		1,227,725,534
863,439,177	25,700,603		889,139,780
3,778,862,617	112,479,316		3,891,341,933
782,993,863	23,306,117		806,299,980
123,786,253	3,684,546		127,470,799
75,985,505	2,261,738		78,247,243
1,627,154,843	48,432,897		1,675,587,740
12,347,473	367,527		12,715,000
\$ 8,456,807,834	\$ 251,720,175		\$ 8,708,528,009
1,119,335,970	33,317,471		1,152,653,441
23,151,929	689,126		23,841,055
(3,677,090)	(109,450)		(3,786,540)
19,474,839	579,676		20,054,515
1,096,145	32,627		1,128,772
\$ 10,128,443,397	\$ 327,777,289	\$ 12,311,771	\$ 10,468,532,457
	12,668,441		12,668,441
157,984,330	4,702,465		162,686,795
5,822,496	173,310		5,995,806
		12,311,771	12,311,771
6,141,217	182,796		6,324,013
1,119,335,970	33,317,471		1,152,653,441
\$ 1,289,284,013	\$ 51,044,483	\$ 12,311,711	\$ 1,352,640,267
\$ 8,839,159,384	\$ 276,732,806		\$ 9,115,892,190

Combining Statement of Changes in Plan Net Assets

For the years ended December 31, 2001 and 2000

2001

	Pensions	Postemployment Healthcare	2001 Total
Additions:			
Contributions:			
Members'	\$ 150,531,967		\$ 150,531,967
Employers'	203,048,580	\$ 109,036,669	312,085,249
State of Ohio - Subsidies	2,931,250		2,931,250
Medical Benefits		6,874,699	6,874,699
Total Contributions	<u>356,511,797</u>	<u>115,911,368</u>	<u>472,423,165</u>
Investment Income:			
Net Appreciation (Depreciation) of Fair Value of Investments	(652,898,420)	(15,704,826)	(668,603,246)
Bond Interest	140,382,647	3,376,766	143,759,413
Dividends	31,037,797	746,583	31,784,380
Real Estate Operating Income, net	41,135,814	989,481	42,125,295
Foreign Securities	10,300,463	247,767	10,548,230
Other	12,008,969	288,864	12,297,833
Less Investment Expenses	<u>(17,509,910)</u>	<u>(421,183)</u>	<u>(17,931,093)</u>
Net Investment Income	(435,542,640)	(10,476,548)	(446,019,188)
From Securities Lending Activities:			
Securities Lending Income	43,397,534	1,043,885	44,441,419
Securities Lending Expense:			
Borrower Rebates	(40,042,773)	(963,189)	(41,005,962)
Management Fees	(856,963)	(20,613)	(877,576)
Total Securities Lending Expense	<u>(40,899,736)</u>	<u>(983,802)</u>	<u>(41,883,538)</u>
Net Income from Securities Lending	2,497,798	60,083	2,557,881
Interest on Local Funds Receivable	1,872,544		1,872,544
Other Income	4,452,820	645,533	5,098,353
TOTAL ADDITIONS	<u>(\$ 70,207,681)</u>	<u>\$ 106,140,436</u>	<u>\$ 35,932,755</u>
Deductions:			
Benefits:			
Retirement	319,641,712		319,641,712
Disability	125,003,758		125,003,758
Health Care		129,173,470	129,173,470
Survivor	47,753,173		47,753,173
Contribution Refunds	10,438,362		10,438,362
Discount on Early Payoff of Receivable	3,721,025		3,721,025
Administrative Expenses	10,007,576	3,114,771	13,122,347
Other Expenses	1,050,563		1,050,563
TOTAL DEDUCTIONS	<u>\$ 517,616,169</u>	<u>\$ 132,288,241</u>	<u>\$ 649,904,410</u>
Net Decrease	<u>(587,823,850)</u>	<u>(26,147,805)</u>	<u>(613,971,655)</u>
Net assets held in trust for pension and postemployment healthcare benefits:			
Balance, Beginning of year	\$ 8,839,159,384	\$ 276,732,806	\$ 9,115,892,190
Balance, End of year	<u>\$ 8,251,335,534</u>	<u>\$ 250,585,001</u>	<u>\$ 8,501,920,535</u>

See Notes to Combining Financial Statements

2000

Pensions	Postemployment Healthcare	2000 Total
\$ 144,967,340		\$ 144,967,340
203,684,242	\$ 101,205,133	304,889,375
3,112,366		3,112,366
	5,657,431	5,657,431
351,763,948	106,862,564	458,626,512
(409,658,278)	(7,916,914)	(417,575,192)
166,721,062	3,221,993	169,943,055
21,717,008	419,695	22,136,703
62,229,416	1,202,624	63,432,040
6,414,467	123,964	6,538,431
3,908,922	75,542	3,984,464
(15,606,722)	(301,610)	(15,908,332)
(164,274,125)	(3,174,706)	(167,448,831)
61,173,642	1,182,221	62,355,863
(58,010,844)	(1,121,097)	(59,131,941)
(898,574)	(17,366)	(915,940)
(58,909,418)	(1,138,463)	(60,047,881)
2,264,224	43,758	2,307,982
3,199,936		3,199,936
4,534,909		4,534,909
\$ 197,488,892	\$ 103,731,616	\$ 301,220,508
301,252,668		301,252,668
115,063,199		115,063,199
	111,817,485	111,817,485
45,650,351		45,650,351
11,069,721		11,069,721
22,321,629		22,321,629
10,032,392	3,192,118	13,224,510
713,134		713,134
\$ 506,103,094	\$ 115,009,603	\$ 621,112,697
(308,614,202)	(11,277,987)	(319,892,189)
\$ 9,147,773,586	\$ 288,010,793	\$ 9,435,784,379
\$ 8,839,159,384	\$ 276,732,806	\$ 9,115,892,190

Notes to Combining Financial Statements

December 31, 2001 and 2000

1. Summary of Significant Accounting Policies

The following are the significant accounting policies followed by the Ohio Police & Fire Pension Fund (OP&F), formerly known as the Police & Firemen's Disability and Pension Fund of Ohio.

Basis of Accounting—OP&F's combining financial statements have been prepared using the accrual basis of accounting. Revenues are recognized when earned and expenses are recorded when a liability is incurred.

Investments—Investment purchases and sales are recorded on a trade date basis. Dividend income is recognized on the ex-dividend date, while interest and rental income is recognized when earned.

Investments are reported at fair value. Short-term investments are valued at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgages are valued on the basis of future principal payments discounted at prevailing interest rates for similar instruments. The fair value of real estate is based on independent appraisals and internal valuations. Investments that do not have an established market are reported at estimated fair value. Private equity limited partnership interest is based on values established by valuation committees.

Net appreciation is determined by calculating the change in the fair value of investments between the end of the year and the beginning of the year, less the cost of investments purchased, plus sales of investments at fair value. Investment expense consists of administrative expenses directly related to the OP&F's investment operations and a proportional amount of all other administrative expenses allocated based on the ratio of OP&F's investment staff to total OP&F staff.

OP&F has no individual investment that exceeds 5% of net assets available for benefits.

Federal Income Tax Status—OP&F was determined to be exempt from Federal income taxes under Section 501(a) of the Internal Revenue Code.

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, equipment and software	3 to 10 years

Contributions and Benefits—Member and employer contributions are recorded in the period the related member salaries are earned. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

2. Description of the System

Organization—The Ohio Police & Fire Pension Fund (OP&F) 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 individual local police and firemen's relief and pension funds into one statewide plan. OP&F is administered by a nine member Board of Trustees, consisting of four active members, two retired members, two ex-officio members (the State Auditor and Attorney General) and a municipal finance officer appointed by the Governor. OP&F administers pension, disability and health care benefits to qualified participants, and survivor, death and health care benefits to qualified spouses, children and dependent parents.

OP&F is a separate financial reporting entity in accordance with criteria established by Governmental Accounting Standards Board Statement No. 14 because it is legally separate, a voting majority of the governing board is not appointed by the State, and it is fiscally independent of other state and local governments.

Plan Membership—The Ohio Police & Fire Pension Fund is a statewide retirement plan established by Chapter 742 of the Ohio Revised code (ORC).

Employee and employer membership data as of January 1, 2001 and 2000, based on the most recent actuarial valuation, is as follows:

Employee Members	2001			2000		
	Police	Fire	Total	Police	Fire	Total
Retirees and beneficiaries currently receiving benefits	12,833	10,037	22,870	12,467	9,807	22,274
Terminated employees entitled to benefits but not yet receiving them	99	44	143	78	37	115
Current employees:						
Vested	5,059	4,205	9,264	5,085	4,108	9,193
Nonvested	10,719	7,953	18,672	10,690	7,759	18,449
	15,778	12,158	27,936	15,775	11,867	27,642
Total Members	28,710	22,239	50,949	28,320	21,711	50,031

Employer Members

Municipalities	251	215	258	213
Townships	0	105	0	105
Villages	322	32	332	32
	573	352	590	350

Benefits—Plan benefits are established under Chapter 742 of the ORC. 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 salary" for the three consecutive years during which the total "salary" was greatest or the member's "recalculated average annual salary" for any three years during which such salary was the greatest. Retirement with reduced benefits is available upon reaching age 48 with 15 years of service credit and 25 years from the date the member became a qualified employee.

In addition to retirement benefits, OP&F also provides disability, survivor and death 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 if in the line of duty. A death benefit of \$1,000 is payable to the surviving spouse or estate of each deceased retired member.

An eligible spouse or dependent of a member whose death resulted from injury or disease sustained while on active duty as a police officer or firefighter is entitled to receive the member's full monthly salary, which will be reduced at the member's retirement eligibility date. The dependent's benefit will be terminated at the dependent's attainment of age 18 (or 22 if attending school). The spouse's benefit is a lifetime benefit. These 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.

Healthcare Benefits—OP&F provides comprehensive health care benefits to eligible benefit recipients and their eligible dependents. These medical benefits are not guaranteed and are subject to change at any time upon action of the Board of Trustees. Coverage includes hospitalization, physician's fees, prescription drugs and reimbursement of Medicare Part B premiums. Benefit recipients pay a portion of the health care cost through a monthly contribution.

Under Ohio law, medical costs paid from the funds of the plan are included in the employer contribution rates, which are currently 19.5% and 24% of salaries for police and fire employers respectively. The Board of Trustees allocates employer contributions equal to 7.50% and 7.25% of salaries to the Health Care Stabilization Fund within the Pension Reserve Fund in 2001 and 2000, respectively.

Refunds—Upon termination of employment, members may withdraw accumulated contributions to OP&F. Acceptance of a refund cancels the member's rights and benefits in OP&F. Employer contributions to OP&F are not refundable.

| 3. Contributions and Reserves

Contributions—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 are as follows:

Rates established by the ORC at December 31, 2001 and 2000:

	Police	Fire
	(% of active member payroll)	
Employer	19.50	24.00
Member	10.00	10.00
Total statutory rate	29.50	34.00

7.50% and 7.25% of the 19.5% and 24% employer rates were allocated to the Health Care Stabilization Fund in 2001 and 2000, respectively.

House Bill No. 721 required the January 1, 1997 and future actuarial valuations be based on the entry age normal actuarial cost method. Senate Bill 82 established the length of the amortization period for unfunded pension liability as the primary measure of OP&F's financial status, with a period of 30 years or less being considered satisfactory. This 30-year target is to be attained by the year 2007, and maintained thereafter. As of January 1, 2001 the amortization period under the current statutory rates is 29.49 years.

Contributions as a percentage of active member payroll required and made for 2001 and 2000 represented 29.50% for police and 34.00% for firefighters. Employer and member contributions were approximately \$159,432,053 and \$84,743,346, respectively, for police and \$152,653,196 and \$65,788,621, respectively, for firefighters for the year ended December 31, 2001.

Employer and member contributions were approximately \$155,690,779 and \$81,637,293 respectively, for police and \$149,198,596 and \$63,330,047, respectively, for firefighters for the years ended December 31, 2000.

In accordance with the ORC, the State of Ohio is required to contribute additional amounts to finance the cost of certain State-legislated benefit improvements. The total amount contributed by the State was \$2,931,251 and \$3,112,366 for the years ended December 31, 2001 and 2000, respectively.

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 OP&F 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 4.25%, 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, 2001 and 2000, respectively, includes \$283,481 and \$387,235 due from local governments which had previously underpaid their semiannual payment and

from local governments that joined OP&F 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,	
2002	\$ 2,214,657
2003	2,213,151
2004	2,239,040
2005	2,234,842
2006	2,209,151
Thereafter	<u>61,271,742</u>
Total projected payments	72,382,583
Less interest portion	<u>33,571,061</u>
Balance at December 31, 2001	\$38,811,522

Effective in 1998, OP&F began awarding discounts to Employers who paid off their local funds receivable early. As this was a reduction of principal, the discount was recorded as a deduction on the statement of changes in net assets. The discount totaled \$3,721,025 and \$22,321,629 for the years ended December 31, 2001 and 2000, respectively. This program ended in May 2001.

Reserves—As required by the ORC, the following funds have been established for the reserves held for current and future benefits:

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

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

The Police Officers' and Firefighters' Pension Reserve Funds is the fund from which all retirement, disability, health care and survivor benefits are paid. Included in these Funds is the Health Care Stabilization Fund from which payments for health care benefits are made. Amounts are transferred into the Pension Reserve Funds from the Contribution Funds and the Guarantee Fund.

The Guarantee Fund records all investment earnings of OP&F. 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.

The Expense Fund is used to record all expenses for the administration and management of OP&F. Annually, funds are trans-

ferred from the Guarantee Fund to cover expenses incurred.

Net assets available for benefits for the various funds were as follows:

	2001	2000
Members' Contribution Funds	\$ 1,250,373,374	\$ 1,152,319,831
Employers' Contribution Funds	2,323,181,161	3,268,860,634
Pension Reserve Funds	4,928,366,000	4,662,414,000
	<u>\$ 8,501,920,535</u>	<u>\$ 9,083,594,465</u>

4. Cash and Investments

Cash Deposits—The carrying amount of OP&F's cash deposits at December 31, 2001 was \$63,641,039 and the depository balance was \$55,669,378. Of the depository balance, \$1,991,020 was insured by the Federal Depository Insurance Corporation and \$27,706,278 was covered by collateral held in the name of OP&F's legally-designated custodian, the Treasurer of State of Ohio (category 1 as defined by the Governmental Accounting Standards Board). The remaining depository balance of \$25,972,080 was uninsured and uncollateralized and was held in the name of OP&F's pledging financial institution, as required by the Ohio Revised Code (Category 3).

The carrying amount of OP&F's cash deposits at December 31, 2000 was \$60,289,125 and the depository balance was \$61,835,953. Of the depository balance, \$2,761,421 was covered by federal depository insurance and \$4,588,649 was covered by collateral held in the name of OP&F's legally-designated custodian, the Treasurer of the State of Ohio (Category 1 as defined by the Governmental Accounting Standards Board). The remaining depository balance of \$39,474,620 was uninsured and uncollateralized and was held in the name of OP&F's pledging financial institution, as required by the Ohio Revised Code (Category 3).

Investments—Section 742.11 of the Ohio Revised Code grants the Board of Trustees full power to invest the assets of OP&F. This statute requires that investments be made with care, skill, prudence and diligence under the circumstances then prevailing that a prudent and informed person would use.

Statement No. 3 of the Governmental Accounting Standards Board requires OP&F to categorize its investments to give an indication of the level of collateral risk assumed by OP&F. Category 1 includes investments that are insured or registered or for which the securities are held by OP&F or its agent in OP&F's name. Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in OP&F's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the counterparty, or its trust department or agent, but not in OP&F's name.

All investments subject to categorization met the criteria of Category 1 at December 31, 2001 and 2000 and are held in the name of OP&F or its nominee by the Treasurer of State of Ohio as custodian. Investments in domestic pooled common stocks, real estate, mortgage notes receivable, commercial mortgage funds and private equity, by their nature, are not required to be categorized.

A summary of short-term securities and investments at fair value is as follows:

Category	2001	2000
Commercial paper	\$ 268,262,250	\$ 294,831,635
U.S. government bonds	445,742,801	692,179,344
Corporate bonds and obligations	780,964,012	51,424,178
Mortgage & asset backed obligations	804,463,085	889,139,780
Foreign & Canadian bonds	9,146,560	21,300,012
Domestic stocks	2,401,667,977	2,366,585,789
Domestic pooled stocks	1,545,715,035	1,524,756,144
International securities	1,440,700,622	1,675,587,740
Real estate	579,252,406	806,299,980
Mortgage notes receivable	0	12,715,000
Commercial mortgage funds	127,540,457	127,470,799
Private equity	75,617,183	78,247,243
	<u>\$ 8,479,072,388</u>	<u>\$ 9,003,359,644</u>

Securities Lending—OP&F participates in a domestic securities lending program administered by a custodial agent whereby certain securities are loaned to independent broker/dealers (borrowers) in exchange for collateral equal to no less than 102% of the market value of the loaned securities. OP&F has minimized its exposure to credit risk due to borrower default by having the custodial agent bank determine daily that required collateral meets 102% of the market value of securities on loan. OP&F has not experienced any losses due to credit or market risk on securities lending activity since implementation of the program. OP&F does have the ability to pledge or sell collateral securities absent a borrower default. Securities loaned to brokers/dealers totaled \$1,066,942,916 and \$1,116,168,557 at December 31, 2001 and 2000, respectively, and the associated collateral at that date was \$1,092,822,853 and \$1,152,653,441. Securities lending net income totaled \$2,557,881 and \$2,307,982 for the years ended December 31, 2001 and 2000, respectively.

Derivatives—OP&F invested in Planned Amortization Class and Sequential Pay Real Estate Mortgage Investment Conduit bonds issued by GNMA, FHLMC and FNMA. Planned Amortization Class bonds are retired according to a payment schedule so as to have a stable average life and yield even if expected prepayment rates change within a specified broad range of prepayment possibilities. Sequential Pay bonds begin to pay principal when classes with an earlier priority have paid to a zero balance. Such bonds enjoy uninterrupted payment of principal until paid to a zero balance. In terms of credit risk, the

United States government explicitly backs GNMA mortgage securities programs and implicitly backs FHLMC and FNMA mortgage securities programs. OP&F has not violated any legal, regulatory or contractual provisions by such participation and there is no undue credit, market or legal risk. These securities were purchased in order to enhance OP&F's overall total rate of return.

OP&F also has invested in one commingled EAFE (Europe, Australia, Far East) and one commingled S&P 500 index fund. Those funds to a minor extent utilized futures contracts to maintain a fully invested posture, and also utilized certain derivative money market instruments in their short-term investment funds. OP&F's indirect exposure represented less than 1% of the total portfolio market value at year-end. OP&F has not violated any legal, regulatory, or contractual provisions by such participation and there is no undue credit, market or legal risk.

5. Mortgage Notes Payable

In 1998, OP&F entered into a \$5,000,000 mortgage loan payable, secured by a deed of trust, in connection with the purchase of St. Andrews Apartments. The loan bears interest at 6.5%. Also in 1998, a \$16,152,000 mortgage loan payable, secured by a deed of trust, was assumed with the purchase of the St. Andrews Apartments. The loan bears interest at 7.91%.

In 1997, OP&F assumed three mortgage notes payable of \$13,500,000, \$14,264,000 and \$10,331,384. These loans are secured by real properties and bear per annum interest of 7.16%, 7.90% and 7.69% respectively. A mortgage loan in the amount of \$15,395,000 assumed in 1995 and secured by a deed of trust for the Vista Ridge building bears interest of 7.8% per annum.

Aggregate and annual payments of principal on the mortgage loans are as follows:

Year ending December 31,	
2002	\$ 25,578,638
2003	1,512,406
2004	45,173,439
2005	14,044,241
Thereafter	<u>42,600,592</u>
Total payments	\$ 128,909,316

6. Defined Benefit Pension Plan

OP&F contributes to the Public Employees Retirement System of Ohio, (PERS), a cost-sharing multiple-employer defined benefit pension plan. PERS provides retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. Benefit provisions and contribution requirements are established by the Ohio State Legislature and

are codified in Chapter 145 of the Ohio Revised Code. PERS issues a publicly available financial report that includes financial information and required supplementary information for the plan. That report may be obtained by writing to PERS, 277 East Town Street, Columbus, Ohio 43215-4642 or by calling (614) 466-2085 or 1-800-222-7377.

Plan members are required to contribute 8.5% of their annual covered salary, while employers are required to contribute 13.31%. OP&F's contributions to PERS for the years ending December 31, 2001, 2000 and 1999 were \$925,516, \$694,552, and \$821,732, respectively, equal to the required contributions for each year.

7. Other Postemployment Benefits

In addition to the pension benefits described in note 7, PERS provides postretirement health care coverage to age and service retirees with 10 or more years of qualifying Ohio service credit. Health care coverage for disability recipients and primary survivor recipients is available. The health care coverage provided by PERS is considered an Other Postemployment Benefit (OPEB) as described in GASB Statement No. 12. At December 31, 2001, the plan had 411,076 active participants.

A portion of each employer's contribution to PERS is set aside for the funding of post retirement health care. The 2001 employer rate of was 13.55% of covered payroll, of which 4.3% was the portion used to fund health care for the year. For the year ended December 31, 2001, approximately \$301,296 of employer contributions OP&F made to PERS was the portion used to fund health care.

The Ohio Revised Code provides statutory authority requiring public employers to fund postretirement health care through their contributions to PERS.

The actuarial value of PERS' net assets available for OPEB at December 31, 2000 were \$11,735.9 million. The actuarially accrued liability and the unfunded actuarial accrued liability, based on the actuarial cost method used, were \$14,364.6 million and \$2,628.7 million respectively.

The actuarial present value of accrued postemployment benefits was determined based on the entry age normal method of funding. Significant actuarial assumptions based on PERS's latest Actuarial Review performed as of December 31, 2000 and are as follows: an investment rate of return of 7.75%, investments valued at market value, adjusted annually to reflect 25% of unrealized market appreciation or depreciation on investment assets, no change in the number of active employees, base pay rate increases of 4.75% and annual pay increases over and above the 4.75% base increase ranging from 54% to 5.1%, and health care costs assume an increase of 4.75% annually.

| 8. Commitments and Contingencies

OP&F is a defendant in a number of lawsuits pertaining to matters that are incidental to performing routine business functions. OP&F management is of the opinion that ultimate settlement of such claims will not result in a material, adverse effect on OP&F's financial position as of December 31, 2001.

OP&F is committed to make additional capital contributions of \$24,430,957 towards our private equity program.

| 9. State of Ohio Death Benefit Fund

Pursuant to Section 742.63 of the Ohio Revised Code, the Board of Trustee of the Ohio Police and Fire Pension Fund administers the State of Ohio Public Safety Officers Death Benefit Fund. This program was established by the State of Ohio to provide monthly benefit payments to surviving family members of Ohio firefighters and law enforcement officers who have been killed in the line of duty or die of a duty-related accident or illness. Funds are disbursed to OP&F each State fiscal year (July 1-June 30) and are paid monthly by OP&F to eligible recipients. The unused balance at June 30 is returned to the State. The Death Benefit Fund is considered to be an agency fund administered by the Ohio Police and Fire Pension Fund and accordingly its assets of \$13,640,695 and \$12,311,771 and the related liability for unpaid benefits are included in the accompanying Combining Statement of Plan Net Assets as of December 31, 2001 and 2000, respectively.

Required Supplementary Information

1. Schedule of Funding Progress

As of January 1 (Data for earlier periods is not available because a different funding method was used.)

Valuation Year	Valuation Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as % of Active Member Payroll
1997	\$ 5,554,114,000	\$ 7,024,555,000	\$ 1,470,441,000	79.1%	\$ 1,119,922,000	131.3%
1998	6,231,419,000	7,697,677,000	1,466,258,000	81.0%	1,190,878,000	123.1%
1999	7,306,814,000	8,452,622,000	1,145,808,000	86.44%	1,249,114,000	91.73%
2000	7,988,578,000	8,995,564,000	1,006,986,000	88.81%	1,338,514,000	75.23%
2001	8,498,069,000	9,506,283,000	1,008,214,000	89.39%	1,407,542,000	71.63%

The amounts reported in this schedule do not include assets or liabilities for postemployment healthcare benefits.

2. Schedule of Contributions from Employers and Other Contributing Entities

Year Ended December 31	Actuarially Required Contributions	Percentage Contributed
1996	\$ 168,505,254	100%
1997	176,567,663	100%
1998	185,548,447	100%
1999	191,646,415	100%
2000	206,796,608	100%
2001	205,979,830	100%

Contributions include funding from the State of Ohio to finance the cost of certain benefit improvements. Amounts do not include contributions for postemployment healthcare benefits

3. Notes to the Required Supplementary Schedules

The information presented in the required supplemental schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	January 1, 2001
Actuarial cost method	Entry Age Normal
Amortization method	Level percent of payroll, open
Remaining amortization period	29.49 years
Asset valuation method	4-year market adjustment method
Actuarial assumptions:	
Investment rate of return	8.25%
Projected salary increases	5.0-7.0%
Cost-of-living adjustments	3.0%

Schedule of Administrative Expenses*

For The Years Ended December 31, 2001 and 2000

	2001	2000
Personal Services:		
Salaries and Wages	\$ 7,907,879	\$ 7,058,539
Retirement Contributions	932,516	694,552
Employee Benefits	1,288,613	1,309,823
Total Personal Services	\$ 10,129,008	\$ 9,062,914
Supplies:		
Office Supplies	155,049	182,019
Printing and Publications	252,535	228,939
Dues and Subscriptions	68,792	73,331
Total Supplies	\$ 476,376	\$ 484,289
Professional Services:		
Auditing	76,775	104,445
Actuarial	216,000	214,900
Medical	683,946	648,064
Legal	119,014	438,379
Investment	14,818,363	12,708,898
Treasurer of State Charges	8,214	12,406
Employee Training	441,005	511,614
Temporary Employees	94,032	337,871
Other Professional Services	1,733,423	2,249,253
Total Professional Services	\$ 18,190,772	\$ 17,225,830
Communications:		
Telephone	109,832	126,166
Postage	302,689	287,936
Transportation and Travel	110,000	127,051
Total Communications Services	\$ 522,521	\$ 541,153
Miscellaneous:		
Equipment and Maintenance	479,564	680,994
Retirement Study Council	47,055	49,965
Insurance—Administrative	182,423	99,585
Depreciation Expenses	1,025,721	988,112
Total Miscellaneous	\$ 1,734,763	\$ 1,818,656
TOTAL ADMINISTRATIVE EXPENSES	\$ 31,053,440	\$ 29,132,842

* Includes investment related administrative expenses

| *Schedule of Investment Expenses***For The Years Ended December 31, 2001 and 2000*

	<i>2001</i>	<i>2000</i>
Investment Manager Fees	\$ 13,950,653	\$ 11,932,565
Custodial Fees	867,710	776,333
Other Professional Services	646,250	787,671
Other Direct Investment Department Expenses	1,390,287	1,343,500
Allocation of Other Administrative Expenses	1,076,193	1,068,263
	\$ 17,931,093	\$ 15,908,332

**A portion of the non-Investment Department administrative expenses of OP&F is allocated to Investment Expense based on the ratio of OP&F's investment staff to total Fund staff.*



Investment Section

- 1. Investment Report**
- 2. Investment Portfolio Summary**
- 3. Schedule of Investment Results**
- 4. Investment Consultants and Money Managers**
- 5. Schedule of Brokers' Fees**
- 6. Investment Policy and Guidelines**

1. Investment Report

Prepared through a combined effort of the OP&F Investment Department

| Introduction

The investment authority of OP&F is specified in Section 742 of the Ohio Revised Code. Importantly, the Code requires that the Board and other fiduciaries discharge their duties solely in the interest of the participants and beneficiaries, for the exclusive purpose of providing benefits to participants and their beneficiaries and defraying reasonable expenses of administering OP&F. Within the guidelines of the Code, OP&F has developed an internal Investment Policy that provides for appropriate diversification of assets and an acceptable expected return on investments after consideration of investment risks. Performance returns are prepared by Wilshire Associates, in accordance with the Association for Investment Management and Research (AIMR) standards.

| Significant Developments in 2001

For a number of reasons, 2001 is a year many of us wish we could forget, but we cannot and indeed *must not* forget.

The majority of our efforts last year were aimed at implementing the recommendations of an asset/liability study completed in 2000. The study focused on finding a way for OP&F to meet its statutory funding targets and to help defray growing health care costs. The major recommendation of the study was for OP&F to move to a more aggressive, equity oriented asset mix in order to target a higher expected return of 8.75%. More specifically, the study suggested that we shift a significant amount of assets out of core fixed income and reinvest them in public and private equity and to make our first ever investments in high yield bonds. As anyone who follows the markets even casually could easily guess, this approach has yet to pay off. However, as pension funds by their very nature have a long-term outlook, we are confident that by sticking with this philosophy, our patience will ultimately be rewarded. Following are this and other noteworthy investment issues with which OP&F dealt last year:

- While the total portfolio did experience a difficult year, we outperformed OP&F's investment benchmark by nearly 2¾ %.
- Our internal fixed income team turned in another year of excellent performance, beating their benchmark by almost 2½ %.
- Our team of external US equity managers outperformed OP&F's US equity benchmark by 3½ %, thanks primarily to our value managers.
- To reach our asset allocation targets, we continued to shift assets to US and international equities and to private equity.
- We conducted searches and hired managers for small/mid cap equity and core fixed income to further fine-tune our asset allocation strategy.
- As we worked toward our private equity target of 3%, we made significant new commitments to a number of private equity firms, including our first dedicated international fund.
- After reviewing the potential risks and rewards, we initiated Internet bond trading, which in the second half of the year alone saved OP&F \$170,000 through more competitive bids and offers.
- We completed the sale of 8 real estate investments, consisting of 20 properties.
- To better monitor the activities of our external managers, internal staff took over sole responsibility for the compliance review of these portfolios.
- We solidified the operations team and incorporated more cross training to provide us with a greater depth of skills and more flexibility to direct resources where needed.
- We hired State Street Bank and Trust Company as the securities lending agent for OP&F's international equity holdings to add incremental income to the total portfolio.
- We initiated an internal review program of our securities lending counterparties to supplement the review provided by our lending agent. We feel this strengthens our control over the process and assists us in identifying and minimizing risk in this area.
- Transitioned our MSCI EAFE Index portfolio at State Street Global Advisors to the provisional index in anticipation of the proposed changes to the index in late 2001 and mid-2002.
- Completed evaluations of all managers in all asset classes according to policy.
- We worked with the Treasurer of State and our custodians to implement a new custody model.

| Economic Environment

As the year 2000 drew to a close, members of the Federal Open Market Committee were concerned about the slowing economy, and it took only a few days for them to make their level of concern clear. On January 3, 2001, the Fed unexpectedly lowered the federal funds rate by a full 50 basis points to 6%. The direction and magnitude of the move were of less surprise than was

its timing, coming between scheduled FOMC meetings. Economic data confirmed the weakness in the manufacturing sector as auto sales and production took a hit. Business investment slowed, corporate sales and earnings continued to falter, and layoff announcements increased. The Fed acted again at their late January meeting, dropping the funds rate another 50 basis points. In all, the Fed doggedly pursued a series of eleven interest rate cuts dropping the federal funds rate from 6.50% to a forty-year low of 1.75% from January to December 2001.

The Fed was trying to combat slowing economic growth, rising levels of unemployment and the damage caused by a falling stock market. Consumer confidence had already begun to erode. This important psychological measure remained relatively stable through August, but the tragic events of September 11 led to doubts and fears that caused confidence to plummet until finding a bottom in November. Following a 1.3% growth rate in the first quarter and 0.3% growth in the second quarter, real GDP fell -1.3% in the third quarter before making a surprising rebound to a 1.4% growth rate in the fourth quarter. For all of last year, real GDP grew just 1.2% after gaining 4.1% in both 2000 and in 1999. Late in the year, the National Bureau of Economic Research determined that the business cycle had peaked in March 2001, and that the US economy had officially entered a recession. However, as of this writing, the reported fourth quarter rebound seems to have staved off the unofficial definition of recession, two negative quarters of GDP growth. If the third quarter decline of -1.3% ends up being the only negative quarter, the 2001 recession will be the shallowest of the post-World War II recessions.

Fears that an overextended consumer will stop spending have yet to come true, even after September 11. In fact, consumers spent more on durable goods, which include cars, in the fourth quarter than they have at any time in the last 15 years. Of course, greatly discounted auto financing didn't hurt. Unfortunately, in the wake of disappointing corporate profits, businesses continued to reduce their capital spending and investment. Businesses also worked to reduce their unsold inventory by slowing production. This and other corporate cost cutting moves led to increasing layoff announcements. As a result, the unemployment rate soared from 4.0% at the end of 2000 to a six-year high of 5.8% at the end of 2001. Consequently, the pace of job growth continued its decline as almost 1.1 million workers were dropped from payrolls compared with job gains of 2.0 million in 2000 and 3.0 million in 1999. The resulting economic slack and reduced wage pressures certainly aided the inflation picture as the CPI rose at only a 1.6% rate for the entire year, compared with 3.4% in 2000 and 2.7% in 1999. While the Fed is still guarding against weakness, they have taken no additional action since their December meeting as more and more signs point to a rebound in the economy.

| Total Fund

As a result of our growing equity exposure, OP&F's perform-

ance reflects that of the global equity markets. Accordingly, 2001 was not kind to our portfolio. The year began, however, to the upside as the total portfolio topped \$9.1 billion at the end of January due to the actions of a friendly Fed. Not long after this rebound, the equity markets sold off sharply due to increasing signs of an economic slowdown. By the end of March, our portfolio had lost over \$800 million in market value from the end of January. Over the next several months, our portfolio value bounced between \$8.5 and \$8.7 billion. In August, a sliding stock market brought us back down to the lows reached in March. Then came that terrible day in September. As a result of the turmoil caused by the September 11 tragedy, our portfolio's market value fell to a low point of roughly \$7.3 billion on September 21. By month-end, a rebound in the stock market was underway. For the remainder of the year, our portfolio, pushed higher by the markets, ultimately closed the year above \$8.3 billion, net of mortgage loans.

Our total portfolio outperformed both its interim and long-term policy benchmarks for the year. In particular, our total portfolio return of -3.88% exceeded our Interim Policy Benchmark by 272 basis points and our Long-Term Policy Benchmark by 292 basis points. This past year's relative returns also helped our 3, 5 and 10-year annualized returns exceed their corresponding policy benchmarks. While the weakness of the last two years is disturbing, our relative outperformance is comforting as we are long-term investors who prefer to look beyond short-term market gyrations. The development and maintenance of a well-diversified portfolio has proven itself over the past two years as the solid performance of both bonds and real estate partially offset the effects of declining equity markets. Our discipline to rebalance the portfolio when needed and not to time the markets has proven to be a rewarding strategy over the past few years. In addition, diversification among styles within an asset class has also reaped benefits as exemplified by the comeback of our value style equity managers while our growth-oriented managers have suffered.

| Equities

The first two years of the new millennium brought us the first consecutive calendar year declines since 1973-74. A business led economic recession, falling corporate profits, rising unemployment and declining consumer sentiment all were factors contributing to the fears lurking on Wall Street for the majority of the year. Of course, these concerns were exacerbated by the terrible events of September 11. For the year, the S&P 500 returned -11.88%, its worst calendar year since 1974. Driving the average downward was the poor performance of the Technology, Utilities and Capital Goods sectors. The Nasdaq Index, being heavily weighted in the Technology sector, suffered even more last year posting a -20.13% return. Areas bucking the trend and posting positive results for the year were the small- and mid-cap value indices. The Wilshire Mid Cap Value and Small Value Indices returned 7.17% and 10.07%, respectively in

2001. Continuing the trend started in 2000, value stocks again outperformed their growth counterparts by a wide margin. Our domestic equity composite return of -7.47% solidly outperformed our benchmark, the Wilshire 5000, by 3.49%. The 349 basis points of alpha can be attributed mainly to the strong performance of our large-cap and small-cap value managers relative to their respective benchmarks and to their peer groups.

As we look further into 2002, odds seem to favor a positive year. Since 1926, the S&P 500 has fallen more than two consecutive calendar years only twice: the Great Depression years of 1929-32 and during World War II from 1939-1941. Although there are still factors making us err on the side of caution, there have been many encouraging signs during the last several months that 2002 will be more rewarding to investors. First of all, the Fed has pursued a very accommodative policy. Consumer confidence has rebounded from its lows of late last year. Lower oil prices, coupled with lower mortgage rates, have kept more money in the hands of consumers allowing them to continue to support the economy. Areas of concern continue to be high equity valuations relative to historical standards, rising unemployment and the threat of future terrorist attacks. More recently, the collapse of Enron has created a crisis of confidence surrounding any company with a complicated business model. The markets are reacting to fears that public accounting records may not truly reflect the financial status of an underlying business, which could lead to restatement of prior period earnings. While important, like most fears, this too is probably overdone. Nevertheless, as long as the economy continues to recover, profits should do so as well, and the stock market should be in for a favorable year in 2002.

During 2001, OP&F terminated one small/mid cap growth manager in hopes of improving the return of our domestic equity composite. Both of the replacement managers focus on the small/mid cap core segment of the marketplace; however one has a slight growth bias to their portfolio. Other developments within our domestic equity structure included several contributions made throughout the year in order to move to our target weight. Given the declining stock market, reaching and maintaining our targeted allocation has been quite a challenge.

Last year was unkind to the international equity markets as well. For the year, the MSCI EAFE Index, representing non-US developed markets, declined -21.45%, while the MSCI Emerging Markets Free Index fell only -2.37%. A strong U.S. dollar also hurt foreign investing in 2001. As a group, our active and passive non-U.S. developed markets managers posted a return of -23.54%, significantly below the MSCI EAFE Index. One explanation for their underperformance was the fact that two of our three active managers were overweight the Technology, Telecommunications and Media sectors for most of the year despite the bursting of the global "TMT Bubble". Meanwhile, our two emerging markets managers posted a -4.14% return, 177 basis points below the MSCI Emerging Markets Free Index. International equity markets experienced negative returns due

mainly to the economic slowdown in the U.S. Being export-oriented markets, the retrenchment in capital expenditure by U.S. businesses for information technology and telecom equipment was disastrous to these economies.

Due to the capital depreciation in the international developed markets throughout 2001, we gave additional funds to all three managers to bring them closer to our target weight of 17%. As for our two emerging markets managers, one was terminated in late 2001 for performance as well as organizational issues. We have been conducting a search, and should hire a replacement in early 2002. It is expected that we will withdraw some funds from this asset class at the time the replacement manager is funded because we are currently overweight in emerging markets.

| Fixed Income

Last year was another excellent year for the fixed income market. The Lehman Aggregate Index posted a return of 8.43%, and our internal fixed income team did even better, generating a return of 10.86%. A weakening economy led to an aggressive easing campaign by the Federal Reserve Board. The Fed's efforts to prevent a recession led to substantially lower yields on short and intermediate securities. The easing also helped returns on corporate bonds and asset-backed securities by convincing investors that the Fed would prevent a serious deterioration in the credit quality of both corporate and individual borrowers. The efforts of the Fed seemed to have stabilized the economy by the end of the year, and some fixed income investors began to worry about a recovery. This led to the selling of longer Treasury bonds late in the year. As a result, the yield on the Treasury long bond ended the year virtually unchanged from its beginning level. Meanwhile, the yield on the two-year Treasury ended more than two percentage points lower thanks to the Fed's reduction of short-term rates.

This steep yield curve will probably persist during most of 2002, because the Fed is unlikely to raise rates until later this year or possibly even 2003 at the earliest. The Fed will wait until signs of a strong, sustainable economic recovery are in place before reversing their course on interest rates. Low short-term rates, declining inventory levels and falling oil prices should lead to an economic recovery in 2002, but the strength of the recovery will likely be constrained by the negative wealth effect of recent poor stock market returns and tapped out consumer demand. In 2001, consumer demand, especially for autos and housing, did not weaken as much as normal in an economic recession. Therefore, the lack of pent-up demand may keep consumer spending below normal in the first year of an economic recovery. However, by the end of 2002, the economy should be strong enough to generate fears concerning future inflation. This will lead to lower bond prices and modest bond returns. After generating double-digit returns for two years, the internal bond portfolio should produce returns in the 3% - 6% range in 2002.

| High Yield

During 2001, the high yield market performed admirably despite rising default rates, eroding credit quality and an economic contraction. Contributing to the positive return of 6.25%, as measured by the CSFB Domestic High Yield Index, was the turnaround in the fundamental and technical factors underpinning the high yield market. On an historical basis, the high yield market looked relatively cheap due to the dramatic widening of yield spreads over Treasuries that occurred in 2000 and remained in place throughout most of last year. Also supporting this positive return was the anticipation that the U.S. economy would experience a modest recovery in early-to-mid 2002. Upper tier credits outperformed lower quality issues by 15.03% in 2001 mainly due to increased concerns over the weaker companies' abilities to service their debt and the increased likelihood of growing default rates. Approximately 1,032 issues were downgraded in 2001 while only 396 issues were upgraded. In addition, 59 investment-grade issues were downgraded to high yield status during 2001, up from only 23 such instances in 2000. The prospects for the high yield market in 2002 look promising as long as the forecasted economic recovery unfolds sooner rather than later.

During 2001, we continued to fund each of our three high yield managers in an effort to reach our 5% target to this asset class. Due to our contributions and the appreciation of this market, we reached our target weight by mid-year. As a group, our three high yield managers added significant value last year as shown by their combined 207 basis points of outperformance relative to the benchmark.

| Real Estate

The year 2001 was a significant year of change in the real estate markets. A weakening economy impacted the real estate markets adversely in 2001. The terrorist attacks of September 11 aggravated a contraction already underway in the property markets. As a result, vacancy rates increased across all property types, although to relatively low historic rates. Office and industrial properties felt the brunt of the economic weakness, experiencing the largest declines in occupancy and a greater amount of sublease space. Apartment and retail properties fared better as they were more insulated from a sharp decline in demand, although both property types are showing increasing weakness into 2002. The prevailing uncertainties caused a paralysis in both sales and leasing transactions. Leasing activity fell short of expectations, as tenants executed short-term leases, if at all. The transaction market volume also fell sharply below prior years' levels, as owners refinanced properties using cheap debt instead of selling at depressed prices, while buyers with equity capital sought to buy assets at bargain prices from distressed sellers.

Despite all these trends, real estate continued to be an attractive investment among institutional investors due to the high returns it has generated over the last five years and the high income component of these returns. The NCREIF Property Index ended the year with a total return of 7.41%, including an income return of 8.7%. This performance, while down from prior years, compares favorably to the negative returns of equity and private equity in 2001.

As the bid/ask spread continued to widen, OP&F acquired only one property in 2001. While below our goals, we were determined to invest with discipline during this market turbulence. However, we were active sellers, taking advantage of opportunities early in the year to either lock in gains on recent investments or to sell assets that did not have the same future potential for performance. As a result, OP&F sold eight investments and an interest in a joint venture partnership for combined sale proceeds of \$253.5 million. In addition, we received \$13.2 million representing repayment of an old loan on a troubled retail property. These transactions reduced the real estate portfolio to 5.6% of total fund assets, much lower than our 8% target allocation approved by the Board. The portfolio, however, remains well diversified both geographically and by property type.

For the year ended September 30, 2001, the OP&F real estate portfolio generated an 11.84% gross return consisting of 9.2% income and 2.64% appreciation. Our portfolio return exceeds that of NCREIF for the same period by 174 basis points. It should be noted that these numbers are lagged by one quarter due to lengthy real estate reporting delays and were used in the calculation of our total investment portfolio return for 2001.

OP&F is poised to shift into an acquisition mode in 2002. It is uncertain how deep or long this recession will be, making it difficult to predict its full impact on the real estate market. Therefore, our strategy will be one of caution and selectivity in order to build a portfolio that will generate superior risk adjusted returns. Our thrust will continue to be to invest primarily in well-leased, stable and top quality assets in major markets, which should provide stability to our portfolio regardless of the economic climate.

| Private Equity

For the year ended September 2001 (private equity returns are lagged by a quarter), our small allocation to private equity provided a return of -26.14% versus its benchmark (Wilshire 5000 + 5%) return of -23.92%. This is in sharp contrast to one year ago, which saw us post a 61.7% return in this asset class. This dramatic reversal was mainly due to the continued collapse of the Nasdaq market and a significant drop-off in the number of initial public offerings. Due to the bursting of the "Technology Bubble", companies can no longer come to market in hopes of receiving cheap equity capital without any demonstrated past earnings. One bright spot within all of this gloom is the fact that valuations have come down significantly allowing investors the

opportunity to put their money to work at half the cost. This should increase the odds of achieving positive private equity returns in the years ahead.

Last year, we continued to work towards our 3% target allocation by committing capital to various Ohio and non-Ohio based venture capital, buyout and fund of funds vehicles. OP&F made eight new commitments to the following firms in 2001: \$2.5 million to Athenian Venture Partners II, \$10 million to Blue Chip Capital Fund IV, \$10 million to Tucker Anthony Private Equity Fund IV, \$10 million to Morgenthaler VII, \$10 million to Blue Point Capital, \$20 million to Abbott Private Equity Fund IV, \$5 million to HarbourVest International Private Equity Fund IV - European Venture Fund and \$20 million to HarbourVest International Private Equity IV - European Buyout Fund. This brought our total capital committed since the inception of the private equity program to \$356.5 million, of which \$227.5 still has yet to be called. Total committed capital in euros equals 25 million of which 24.4 million has yet to be called. Distributions since the inception of the program have totaled \$85.9 million.

In the future, we will continue to work towards our 3% target by reviewing and monitoring our existing relationships for further investment and by looking at a limited number of new managers. Areas of focus will be the leveraged buyout and international fund of funds markets.

2002 Developments and Challenges Ahead

As mentioned earlier, the Board and staff were very active in 2001. While it is still very early in the year, we are off to a good start in our efforts to evaluate and implement ways to provide prudent and competitive returns for our membership.

- Completed a search for an emerging markets equities manager to replace a manager that is being acquired and is changing its personnel and its investment approach.
- Secured Board approval to explore development of a more streamlined real estate acquisition process in which our external advisors would be given more discretion, which would in turn require development of a more clearly defined investment plan for OP&F and more specific acquisition guidelines for each advisor.

We have always stated our intention to earn at least an 8.25% return over time, which is our actuarial assumption rate. As mentioned earlier, we are now targeting an 8.75% return to meet statutory funding requirements and to lessen the impact of rising health care costs. We will explore new investment ideas and hope to improve the efficiency of and to reduce the costs of our operations. As we look ahead, we intend to tackle a number of issues related to these goals.

- Complete and implement the new real estate acquisition process described above.
- Continue efforts to establish an overall risk management program, performed independently of the investment managers, which will facilitate the timely identification of real or potential risks to OP&F and ensure that appropriate investment strategies are in place.
- Explore ways to maximize the return on OP&F assets such as equity manager cash equitization and the use of derivatives for asset allocation shifts and manager transitions.
- Continue to review risk systems as they become available to the market. Our 2001 initiative to purchase such a system was not executed, as we were unable to find an affordable system with all relevant asset class capabilities.
- Complete reviews of all managers according to policy.
- Maintain asset allocation targets and continue to work towards a more effective rebalancing methodology.

2. Investment Portfolio Summary December 31, 2001

Type	% of Fair Value	Fair Value
Commercial paper	3.16%	\$ 268,262,250
U.S. government bonds	5.25%	445,742,801
Corporate bonds and obligations	9.20%	780,964,012
Mortgage & asset back obligations	9.48%	804,463,085
Foreign & Canadian bonds	0.11%	9,146,560
Domestic stocks	28.29%	2,401,667,977
Domestic pooled stocks	18.21%	1,545,715,035
International securities	16.97%	1,440,700,622
Real estate	6.73%	579,252,406
Commercial mortgage funds	1.5%	127,540,457
Private equity	1.10%	75,617,183
	100.00%	\$ 8,479,072,388

Ten Largest Common Stocks (by Market Value)

	Shares	Market Value
American International	642,676	\$ 51,028,474
Federal Home Loan Mtg. Corp	574,500	37,572,300
Citigroup Inc.	669,215	33,781,973
Pfizer Inc.	791,997	31,561,080
Verizon Communications	594,976	28,237,561
Johnson & Johnson	456,300	26,967,330
General Electric	671,830	26,926,946
Intel Corp.	846,300	26,616,135
Sprint Corp (Pcs Group)	1,318,700	26,479,496
Federal National Mortgage Association	327,910	26,068,845

Ten Largest Bonds and Obligations (by Market Value)

	Par Value	Market Value
US Treasury Bond 11¼ 02/15/15	\$ 61,735,000	\$ 94,493,443
US Treasury Bond 11 7/8 04/15/29	43,000,000	49,602,225
Strip Princ 11/15/09	75,500,000	49,494,780
US Treasury Note	39,450,000	39,986,126
Govt Backed Trust T-1	48,037,000	35,413,357
FNMA TBA	31,200,000	31,200,000
US Treasury Note 4 5/8 05/15/06	30,341,000	30,246,033
Socgen Real Estate Co LLC	25,850,000	26,650,316
US Treasury Note 5½ 05/15/09	23,515,000	24,367,419
Continental Mortgage HE Ln Tr	22,810,000	23,729,528

Ten Largest Real Estate Holdings (by Market Value)

	Market Value
Belmont/Carlton Apartments	\$ 51,400,000
The Pointe at Park Center	50,900,000
200 Tower Place	50,000,000
St. Andrews Apts	48,000,000
Vista Ridge Village	44,000,000
Tempe Commerce Park	39,600,000
Bernards 78	38,400,000
49 Stevenson Office Bldg	32,500,000
Great Southwest	24,250,000
Aurora Plaza Lowe	24,200,000

A complete listing of the portfolio's holdings can be obtained by contacting the Ohio Police & Fire Pension Fund at 614-228-2975.

3. Schedule of Investment Results

For Year Ended December 31, 2001

	Annualized Rates of Return		
	1-Year	3-Year	5-Year
U.S. Equity			
OP&F	-7.47%	1.77%	9.83%
Wilshire 5000	-10.96%	-.66%	9.70%
International Equity			
OP&F	-23.54%	-4.2%	1.81%
MSCI EAFE	-21.45%	5.04%	.89%
Emerging Markets			
OP&F	-4.14%	N/A	N/A
MSCI EMF Index	-2.37%	N/A	N/A
Fixed Income			
OP&F - Core	10.76%	7.83%	8.05%
Lehman Aggregate	8.43%	6.28%	7.43%
OP&F - High Yield	8.32%	N/A	N/A
CSFB Developed Countries HY	6.25%	N/A	N/A
Real Estate (one quarter in arrears)			
OP&F	11.84%	11.61%	13.51%
Wilshire Real Estate Fund	5.56%	8.37%	11.14%
NCREIF	10.10%	11.30%	12.60%
Private Equity (one quarter in arrears)			
OP&F	-26.14%	17.19%	13.18%
Wilshire 5000 +5%	-23.92%	5.95%	13.34%
Total Portfolio			
OP&F	-3.88%	2.66%	7.60%
* Interim Policy Index	-6.60%	1.68%	7.32%

* Interim Policy Benchmark - 48% of Wilshire 5000, 18% of Lehman Aggregate, 17% of MSCI EAFE Index, 8% of Wilshire Real Estate Fund, 3% MSCI Emerging Markets Free, 5% CSFB Deve. Countries HY, 1% Wilshire 5000 + 5%

4. Investment Consultants and Money Managers

| Investment Consultants

Wilshire Associates
The Townsend Group

| Investment Managers—Private Equity

Abbott Capital Management, LLC
Alpha Capital Partners Ltd.
Athenian Venture Partners
Blue Chip Venture Partners, LP
Blue Point Capital Partners, LP
Brantley Venture Partners
Chemicals & Materials Enterprise Associates
Harbourvest Partners LLC
Horseley Bridge Partners, LLC
Linsalata Capital Partners
MV Economic Development, Ltd.
Morgenthaler Venture Partners
Northcoast Fund, L.P.
Northwest Ohio Venture Fund General
Peppertree Partners, LLC
Primus Venture Partners
Tucker Anthony Private Equity Capital, LLC
Wilshire Private Markets, LLC

| Investment Managers—International Equity

Capital Guardian Trust Company
Capital International Inc.
Lombard Odier International Portfolio Mngt, Ltd.
Zurich Scudder Investments
SSB Citi Asset Management Group

| Investment Managers—US Equity

Alliance Capital Management, LP
American Express Asset Management Group, Inc.
Boston Partners Asset Management, L.P.
Fidelity Management Trust Co.
Fleet Investment Advisors, Inc.
Harris Investment Management, Inc.
Nicholas-Applegate Capital Management
Oak Associates Ltd
State Street Global Advisors

| Investment Managers—Real Estate

AEW Capital Management
Conning Asset Management
DLJ Real Estate Capital Partners, Inc.
GMAC Institutional Advisors
Lend Lease Real Estate Investments, Inc.
Lowe Enterprises
Lubert-Adler Management Co., LLC
Paine Webber Real Estate
The RREEF Funds
TA Associates Realty
Walton Street Capital LLC
Westbrook Partners, LLC

| Investment Managers—Fixed Income

Mackay Shields LLC
Shenkman Capital Management, Inc.
Western Asset Management
W.R. Huff Asset Management Co., LLC

5. Schedule of Brokers' Fees Total 2001 Trading

For Year Ended December 31, 2001

Broker Name	Fees Paid	Units Traded	Average Cost Per Unit
DEUTSCHE BANK SECURITIES	\$ 717,727	26,087,000	\$.0275
BOSTON INSTITUTIONAL SERVICES	631,345	12,430,000	.0508
MERRILL LYNCH	450,865	12,553,000	.0383
INVESTMENT TECHNOLOGY GROUP	396,609	20,480,000	.0194
UBS SECURITIES	319,021	7,648,000	.0417
MORGAN STANLEY	290,262	8,747,000	.0332
SALOMON SMITH BARNEY	276,602	6,112,000	.0453
GOLDMAN SACHS	228,382	4,951,000	.0461
J. P. MORGAN	211,500	4,147,000	.0510
INSTINET	210,099	8,109,000	.0259
CREDIT SUISSE FIRST BOSTON	193,819	4,010,000	.0483
LEHMAN BROTHERS	177,757	3,852,000	.0461
CAPITAL INSTITUTIONAL SERVICES	160,160	3,036,000	.0528
BEAR STEARNS CORP.	149,021	4,123,000	.0361
SANFORD C. BERNSTEIN	97,190	1,944,000	.0500
HSBC	84,922	1,933,000	.0439
FACTSET DATA SYSTEMS	73,051	1,416,000	.0516
PRUDENTIAL SECURITIES	72,650	1,318,000	.0551
KEEFE BRUYETTE AND WOODS	70,536	1,210,000	.0583
BRIDGE CO.—CLEARING	69,530	1,424,000	.0488
WEEDEN	66,295	1,190,000	.0557
ROBERT BAIRD	56,502	961,000	.0588
FOX PITT KELTON INC.	54,099	1,548,000	.0349
CIBC WORLD MARKETS CORP.	47,661	833,000	.0572
WARBURG SECURITIES	46,744	2,240,000	.0209
CASENOVE	45,552	2,326,000	.0196
DONALDSON LUFKIN & JENRETTE	43,211	831,000	.0520
EDWARDS (A.G.) & SONS, INC.	42,977	749,000	.0574
FIRST UNION CAPITAL	42,902	760,000	.0565
BANCAMERICA	32,934	632,000	.0521
JEFFERIES & CO., INC.	32,775	720,000	.0455
CITATION GROUP	30,075	537,000	.0560
C. L. KING	28,668	478,000	.0600
CARNEGIE INT'L LND	28,034	1,394,000	.0201
BROCKHOUSE COOPER INC.	27,226	2,011,000	.0135
JULIUS BAER	26,110	229,000	.1140
SG COWEN SECURITIES CORP	25,400	508,000	.0500
LEGG MASON	24,791	466,000	.0532
DRESDNER SECURITIES INC.	23,004	1,044,000	.0220
MORGAN GRENFELL AND CO.	22,550	1,173,000	.0192
ABN AMRO	22,286	865,000	.0258
IBJ INTL	21,975	300,000	.0733
NOMURA SECURITIES	21,566	419,000	.0515
Brokers' fees less than \$20,000 each	644,514	16,834,000	.0383
TOTALS:	\$ 6,338,899	174,578,000	\$.0363

6. Investment Policy and Guidelines

I. Introduction

The purpose of this Statement of Investment Policy and Guidelines is to define the framework for investing the assets of the Ohio Police & Fire Pension Fund (OP&F). This Statement is intended to provide general principles for establishing the goals of OP&F, the allocation of assets and the employment of outside asset management. 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.

The objectives of OP&F have been established in conjunction with a comprehensive review of the current and projected financial requirements. These objectives are:

- To have the ability to pay all benefit and expense obligations when due.
- To maintain the purchasing power of the current assets and all future contributions by maximizing the rate of return on Fund assets.
- To achieve and maintain a fully funded status with regard to the accumulated benefit obligation.
- To control costs of administering OP&F and managing the investments.

In order to achieve these objectives, the Board of Trustees will conduct itself in accordance with Sec. 742.11 of the Ohio Revised Code: "The Board and other Fiduciaries shall discharge their duties with respect to OP&F 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 person 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." All aspects of this statement should be interpreted in a manner consistent with OP&F's objectives. The Board shall adopt in regular meetings, policies, objectives or criteria for the operation of the investment program at least annually.

II. Definition of Responsibilities

A. BOARD of TRUSTEES' RESPONSIBILITIES

- Establish the strategic investment policy for OP&F (asset allocation) and periodically review policy in light of any changes in actuarial variables and market conditions.
- Select qualified consultants and investment managers to advise on and manage OP&F's assets.
- Monitor and review the performance of selected managers to determine achievement of goals and compliance with policy guidelines.

- Monitor the costs of the investment operations on a semi annual basis.

B. INVESTMENT COMMITTEE RESPONSIBILITIES

- Review, on a continuing basis, the current Investment Policies of OP&F and make changes as appropriate.
- Review the annual investment plan prepared by the staff. As conditions warrant, revise the annual investment plan as the year progresses.
- Monitor the monthly investment activity for compliance with Board policies and adherence by investment managers to strategy and direction.
- Review the overall performance to determine whether it meets the benchmarks established by the Board and report its findings to the whole Board.
- Review suggested changes or additions to the functions and operations regarding the Investment operations of similar institutional investors and report to the whole Board.
- Report its activities and recommendations to the full Board following each committee meeting.

C. STAFF RESPONSIBILITIES

- Manage OP&F assets under its care, custody and/or control in accordance with the Investment Policy Statement objectives and guidelines set forth herein.
- Monitor both internally & externally managed assets to ensure compliance with guidelines set forth in this policy statement.
- Promptly vote all proxies and related actions in a manner consistent with the long-term interests and objectives of the Plan set forth herein. Maintain detailed records of said voting of proxies and related actions and comply with all regulatory objectives related thereto.
- Report to the Board quarterly regarding the status of the portfolio and its performance for various time periods. Meet with the Board at least annually to report on their performance and compliance with goals and objectives.
- Acknowledge and agree in writing to their fiduciary responsibility to fully comply with the entire Investment Policy Statement set forth herein, and as modified in the future.

D. INVESTMENT CONSULTANTS' RESPONSIBILITIES

- Provide independent and unbiased information.
- Assist in the development of Investment Policy Statement.
- Monitor compliance with Investment Policy Statement.
- Assist in the development of strategic asset allocation targets.
- Assist in development of performance measurement standards.
- Monitor and evaluate manager performance on an ongoing basis.

- Conduct due diligence when a manager fails to meet a standard.
- Establish a procedural due diligence search process.
- Conduct manager searches when needed for policy implementation.

E. INVESTMENT MANAGERS' RESPONSIBILITIES

- Manage OP&F assets under its care, custody and/or control in accordance with the Investment Policy Statement objectives and guidelines set forth herein.
- Exercise full investment discretion over the assets in their care within the guidelines set forth in this policy statement and the specific guidelines established for the manager.
- Promptly inform the Board and staff in writing regarding all changes of a material nature pertaining to the firm's organization and professional staff.
- If directed, promptly vote all proxies and related actions in a manner consistent with the long-term interests and objectives of OP&F set forth herein. Each manager designated to vote shall keep detailed records of said voting of proxies and related actions and will comply with all regulatory obligations related thereto.
- Report to the Board quarterly regarding the status of the portfolio and its performance for various time periods.
- Meet with the Board at least annually to report on their performance and compliance with goals and objectives.
- Acknowledge and agree in writing to their fiduciary responsibility to fully comply with the entire Investment Policy Statement set forth herein, and as modified in the future.

III. Asset Allocation

It is the responsibility of the Board to determine the allocation of assets among distinct capital and private markets. The allocation will be completed in a manner consistent with commonly recognized financial principles. Application of these principles is expected to lead to a portfolio with the highest level of return consistent with the risk tolerance of OP&F.

The procedure for determining the allocation will consider the relevant characteristics of the liabilities and potential assets of OP&F. The liability considerations shall include, but not be limited to, current and expected future values of the benefits, contributions and total assets. These factors are important for identifying the investment horizon of OP&F and its cash flow requirements. The asset characteristics considered shall include, but not be limited to, the potential return relative to the potential risk.

The asset allocation must be consistent with the investment standards specified in Section 742.11 of the Ohio Revised Code.

Based on an asset allocation and liability study, which analyzed the expected returns of various asset classes, projected liabilities and the risks associated with alternative asset mix strategies, the Board has established the following asset allocation:

Asset Class	Target Allocation (%)	Range (%)
Domestic Equity	46	± 5
International Equity	17	± 2
Domestic Fixed Income	18	± 2
High Yield	5	± 2
Real Estate	8	± 2
Emerging Markets	3	± 2
Private Equity	3	± 2
Cash Equivalents	0	+ 0.5
Total	100%	

The study has shown that this is a favorable asset mix for meeting longer-term goals under both good and bad market conditions.

The asset allocation represents a long term strategy. Short term market shifts may cause the asset mix to drift from the allocation targets. Should the target percentage fall out of the indicated range for a particular asset class, the Board will cause the staff and investment manager(s) to rebalance from the over-allocated class to the under-allocated class.

IV. Performance Expectations

The most important expectation is the achievement of results consistent with this Policy Statement and the analysis set forth in the asset allocation study of April 2000. A long term 4% annualized real rate of return (net of inflation as measured by the Consumer Price Index) is a reasonable expectation in light of this policy. Long term is defined as a market cycle (generally 3-5 years).

OP&F shall also strive to achieve a long-term rate of return, which is equal to or greater than the actuarial rate assumption. The Board expects the total fund to rank in the top half of a comparable public fund universe.

OP&F shall attempt to achieve these return goals without unnecessary risk to principal. The risk/return characteristics of OP&F shall be reviewed on a periodic basis (no less than every five years) through a comprehensive asset allocation and liability study. The goal of the study shall be to formulate a portfolio which maximizes return while minimizing overall risk through the most efficient combination of legal asset classes.

V. Investment Implementation

The implementation of an investment portfolio designed to achieve the above objectives must be consistent with governing statutes as specified in Section 742.11 to 742.11.2.

An Investment Committee composed of three or more Board members shall be responsible for working closely with the Investment Staff in conjunction with the advisors, and shall make recommendations to the Board on investment matters.

Where appropriate, OP&F will invest assets through the use of qualified investment managers. The allocations to these managers will be made in accordance with the results of the Asset Allocation process and established procedures.

The Board, in conjunction with the Consultant, will establish specific search procedures, including the specification of minimum criteria for the selection of new qualified investment managers, to implement the strategic asset allocation plan. Among the criteria to be used for screening purposes will be assets managed, manager style, track record, staff, communication, fees, risk/reward statistics, etc. All managers, with the exception of emerging management firms that may warrant specialized criteria, must meet the criteria established by the Investment Committee. The Investment Manager Search Policy is included later in this Policy as Section XI.

The Board shall give equal consideration to minority owned and controlled firms and firms owned and controlled by women which otherwise meet the criteria established by the Board. Ohio based firms shall also be given consideration, providing that specified criteria are met.

VI. Specific Guidelines

A. DOMESTIC EQUITY

Investment Objectives

- Total return of the managed equity portfolio should exceed the return of the Wilshire 5000 Index over a three-year period on an annualized basis.
- Total return of each manager's portfolio should rank above median when compared to their peer groups (growth, value) over a three-year period on an annualized basis and should exceed their benchmark return as specified in each manager's guidelines.

1. Large Capitalization Specialist Managers

The Board of Trustees has determined that diversification of the equity asset base into large capitalization companies will offer the opportunity for enhanced returns, while lessening overall risk through increased diversification. Assets eligible to be managed in this class of investments will be found in the Ohio Revised Code Sec. 742.11.

The following objectives and guidelines shall apply:

- Eligible equity purchases include all US stocks with exceptions when approved by the Board of Trustees and as delineated in the managers' guidelines.
- The main focus of investing will be on companies with mar-

ket capitalizations included in commonly accepted large capitalization indices.

- No single holding shall account for more than 6% of the entire portfolio at market, or 5% of the outstanding common stock of any one corporation, unless otherwise approved by the Board of Trustees.
- Specialist managers shall be subject to all other investment provisions listed under Sec. 742.11 that are not specifically mentioned above.
- Trading shall be left to the discretion of the investment manager with the exception that OP&F may direct a reasonable amount of commissions to help defray expenses.
- Cash equivalent positions shall be limited to a maximum of 5% unless otherwise approved by the Board of Trustees.
- Derivatives whose underlying asset is allowed by statute may be used in the management of the portfolio.

2. Small/Mid Capitalization Specialist Managers

The Board of Trustees has determined that diversification of the equity asset base into small capitalization and mid-range capitalization companies will offer the opportunity for enhanced returns, while lessening overall risk through increased diversification. The structure of this asset class shall consist of several complementary style managers with a demonstrated 'growth' and 'value' style of investing.

The following objectives and guidelines shall apply to the asset class:

- The guidelines, which apply to the large cap specialist managers, shall also apply to the small/mid cap managers except that;
- The main focus of investing will be on companies with market capitalizations included in commonly accepted small to mid capitalization indices.

B. INTERNATIONAL

OP&F will allocate a portion of the investment portfolio to international securities in accordance with allowable limits. This is intended to enhance the overall return of the portfolio while lowering risk through increased diversification. The structure of the international equity allocation will be diversified among three approaches: passive and active developed markets and active emerging markets. Trading shall be left to the discretion of the investment manager.

Passive International Equity Investments

The passive component has a target allocation of one-third of the International developed markets allocation. This is an index fund portfolio intended to provide diversification to OP&F's U.S. investments through holdings in non-U.S. equities and is to be constructed so as to match the return of the Morgan Stanley Capital International Europe, Australia, Far East Index. Non-U.S. equity securities in EAFE countries are authorized. The manager will have the MSCI-EAFE Index as a benchmark.

Active International Equity Investment

The active component has a target allocation of two-thirds of the International developed markets allocation and will be divided among at least three managers. These will be discretionary portfolios intended to provide diversification to OP&F's U.S. investments as well as OP&F's passive EAFE Index manager.

For each active manager, the use of American Depository Receipts (ADRSs) and Global Depository Receipts (GDRs) will be limited to 20% of the portfolio.

While the geographic and economic sector diversification will be left to the manager's discretion, the portfolio shall be appropriately diversified as consistent with the manager's stated investment approach.

The investment managers may enter into forward exchange or futures contracts on currency provided that use of such contracts is designed for defensive purposes.

Investment Objectives

- Total return of the active equity portfolios should exceed the return of the MSCI EAFE Index over a three-year period on an annualized basis.
- Total return of each manager's portfolio should rank above median when compared to their peer groups over a three year period on an annualized basis and should exceed their benchmark return as specified in each manager's guidelines.

Emerging Markets

The emerging markets allocation will be implemented as a distinct mandate with a separate allocation. The allocation will be divided between at least two active managers. In order to minimize the administrative and transaction costs of emerging market investing, commingled investment vehicles will be utilized. Sector and security selection, portfolio structure, and timing of purchases and sales are delegated to the Manager subject to policies established by the commingled funds.

Investment Objectives

- Total return of the active equity portfolios should exceed the return of the MSCI Emerging Markets Free Index over a three-year period on an annualized basis.
- Total return of each manager's portfolio should rank above median when compared to their peer groups over a three-year period on an annualized basis and should exceed their benchmark return as specified in each manager's guidelines.

C. Fixed Income

It shall be the responsibility of the Investment Staff to give careful consideration to the needs of the system in its recommendation for bond investments, emphasizing relative value, quality and, to a lesser extent, liquidity. The Board may also retain external investment managers for this purpose.

The portfolio shall be actively managed in an effort to outperform the Lehman Aggregate Index over a market cycle. The effective duration of the portfolio shall not deviate beyond + or - 20% from that of the benchmark, unless otherwise approved by the Board of Trustees.

In order to qualify for inclusion in the fixed income portfolio, securities shall be rated "BBB-" 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 on a dollar duration basis, with the exception of United States Government or Agency securities.

Investments in high risk derivatives are prohibited. Low risk mortgage derivatives are permitted.

Cash equivalents positions shall be included in the calculation of the portfolio's effective duration.

Investment Objectives

- Total return of the active fixed income portfolios should exceed the return of the Lehman Aggregate Index over a three-year period on an annualized basis.
- Total return of each manager's portfolio should rank above median when compared to their peer groups over a three year period on an annualized basis and should exceed their benchmark return as specified in each manager's guidelines.

D. HIGH YIELD BONDS

The Board of Trustees has determined that the inclusion of high yield bonds into the portfolio will enhance the overall return of the portfolio while lowering risk through increased diversification. The Board will utilize active management in this asset class to minimize the probability of exposure to securities in default.

The following objectives and guidelines shall apply:

- The primary investment in the portfolio will be fixed income securities issued by US corporations with a minimum credit rating of CCC or equivalent. Investments are not allowed in emerging market debt or non-US dollar denominated bonds.
- No more than 10% of the entire portfolio at market shall be invested in securities of a single issue or issuer, unless otherwise approved by the Board of Trustees.
- The portfolio will be diversified by economic sector; however, the diversification restrictions will be tailored for each investment manager consistent with the manager's stated investment approach.
- Investments in Rule 144A securities are allowed while investments in non-Rule 144A private placements are limited to 5% of the entire portfolio at market.

Investment Objectives

- Total return of the high yield portfolio should exceed the return of the CS First Boston Domestic Plus High Yield Index over a three-year period on an annualized basis.
- Total return of each manager's portfolio should rank above median when compared to their peer groups over a three year period on an annualized basis and should exceed their benchmark return as specified in each manager's guidelines.

E. REAL ESTATE

OP&F has adopted Strategic and Investment Plans that provide for the completion of OP&F's allocation to real estate.

The role of real estate in OP&F's portfolio is to provide an inflation hedge and a return that negatively correlates with stock and bond returns, thereby reducing the volatility and risk of the total portfolio. Also, real estate must provide a total return that is competitive on a risk-adjusted basis with stocks and bonds.

OP&F is primarily interested in investing in core properties (i.e., operating, substantially leased, well located, institutional quality in the traditional property types which include office, apartment, retail and industrial). They generally offer relatively high and more predictable current income returns. OP&F will, however, consider investments in non-core properties to capture superior risk-adjusted returns caused by imbalances in the real estate and capital markets. To access these opportunities, OP&F will make investments in institutional properties, which may present a higher level of risk including leasing, renovation, development, re-positioning, distressed assets, international and a degree of business or operating risk (e.g., hotels, senior housing, etc.).

The investment strategy typically is to cure the identified deficiency, increase cash flow and capture the premium through a short term hold. OP&F's preferred investment vehicle is a separate account because it affords OP&F the highest degree of control over its investments. OP&F also prefers to own 100% of each core property investment. Commingled fund investments will be made to allow OP&F to invest in higher return, higher risk assets and in extraordinarily large properties. OP&F employs a number of risk management strategies to minimize portfolio return volatility. These strategies include diversification by property type, by geographic location, by size of individual investments and by advisors. Leverage will be utilized only if acceptable debt service coverage, loan to value ratios and other protection can be provided. The maximum debt to equity ratio is 1:1 and 2:1 for and individual asset.

Investment Objectives

The performance objective for real estate is to produce a total return, prior to investment advisor fees equal to the NCREIF Property Index plus 100 basis points measured over rolling three-year periods.

F. COMMERCIAL MORTGAGES

The Board of Trustees has determined that inclusion of Commercial Mortgage Investments secured by real estate may,

depending on market circumstances, enhance the risk/return characteristics of OP&F. Therefore, the allocation to this asset class shall be targeted at 0% of OP&F's total investable assets, but will allow for up to a 2% allocation, which shall be included within the Fixed Income allocation.

Commercial Mortgage investments provide for fixed income payments derived from underlying property cash flows. Flexibility in investing in commercial mortgage backed securities or whole loans shall be provided. Risk shall be controlled through diversification strategies and the retention of qualified managers with acceptable loan underwriting and/or commercial mortgage acquisition experience.

Investment Objectives

The benchmark return for the commercial mortgage portfolio, consistent with investment risk, is a real rate of return of four percent, net of investment management fees, over rolling ten-year periods.

The policies and guidelines set forth in OP&F's "Commercial Mortgage Strategic and Investment Plan" are incorporated herein by reference.

G. PRIVATE EQUITY INVESTMENTS

The private equity class of investments is designed to provide an attractive risk adjusted rate of return to benefit OP&F. By its very nature, it possesses a long-term investment horizon, illiquidity and a high degree of risk.

To assist in diversifying the risks of this asset class, OP&F shall invest only in eligible private equity partnerships or funds and shall avoid individual direct company investments.

For these reasons, this asset class is limited to 3% of the overall Fund and expected returns should exceed those of other asset classes.

Investment Objectives

OP&F seeks a long-term target return of 5% greater than the Wilshire 5000 Index net of fees.

H. CASH EQUIVALENTS

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 acceptances, or repurchase agreements may be purchased with the responsibility resting on the Investment Staff regarding the selection of

the specific type of investment at any given point in time. These obligations shall mature within 270 days of the date of purchase.

| VII. Proxy Voting

OP&F's Board of Trustees believes that common stock proxies are valuable and should be voted in the long-term interests and objectives of the Plan set forth herein. Each manager, staff or individual that exercises a proxy vote shall keep detailed records of said voting of proxies and related actions and will comply with all regulatory obligations related thereto and the policies set forth in the Board's "Proxy Voting Policy Statement."

Common stock proxies may be executed by the Sr. Investment Officer and the Chief Investment Officer, or their designees, and by designated outside money managers.

The internal staff shall provide a semi-annual summary report of proxy voting actions to the Investment Committee.

| VIII. Securities Lending

The investment objective for the securities lending program is to generate incremental income within a high quality investment program that safeguards the return of principal, maintains adequate daily liquidity, ensures diversification and tightly controls exposure to fluctuating interest rates.

The program may be operated by a bank trustee or a third party lending agent. Marking to market shall be performed daily and a minimum of 102% collateral shall be diligently maintained.

Securities lending reports shall be provided quarterly by the agent to the Investment Committee detailing investment instruments utilized and the appropriate breakdown of revenues.

| IX. Investment Monitoring and Evaluation Policy

The purpose of the OP&F Investment Manager Monitoring and Evaluation Policy is to establish the process and discipline for managing the investment manager relationship. The policy states the process, responsibilities and important factors for consideration in the monitoring and evaluation process.

The successful monitoring and evaluation of managers depends on synthesizing a multi-faceted array of investment factors, including historical data and forward looking characteristics that are often linked. The process must also examine the investment manager's business capabilities and ability to attract and retain investment and support professionals. The Policy seeks to examine all material information about OP&F's investment managers that may materially impact the relationship and investment

objectives of the Board.

OP&F will consider, but not be limited, to the following factors in monitoring and evaluating its investment managers:

- A. Stability and experience of firm in the investment product;
 1. Stability of the firm, as measured by the quality of the organizational structure of the firm; the existence of, or potential for, significant developments in the firm; and the expected financial stability of the firm.
 2. Experience of the firm in providing investment management services to similar institutional investors, as measured by the firm's history of providing such services.
 3. Ownership of the firm, as measured by the depth and structure of the incentive programs and the ownership type for key investment professionals in the subject product.
 4. Firm commitment to improvement as measured by whether or not there is a clear business plan/strategy, reinvestment in the firm with an overall commitment for enhancements/improvements.
 5. Adverse organizational issues, as measured by the existence of litigation or other investigations; and the existence of financial problems.
- B. Quality, stability, depth and experience of investment professionals;
 1. Experience of portfolio manager(s) in providing similar services to similar institutional investors, as measured by the length of time the portfolio manager(s) has served as a portfolio manager to such investors; demonstrated expertise in providing such services to other such investors.
 2. Stability of the firm's professional base, as measured by personnel turnover.
 3. Depth of personnel, as measured by the firm's account/portfolio manager and account/investment management personnel ratios; and back-up procedures for providing services to OP&F in the absence of the portfolio manager(s).
- C. Client service and relationships;
 1. Assets under management, as measured by the amount in the subject product as well as the experience of managing other similar asset class products.
 2. The similarity of a firm's clients to OP&F, as measured by the amount of institutional tax-exempt assets under management and the size of the individual accounts currently under management.
 3. Stability of the firm's client base, as measured by the number of accounts gained or lost.
 4. Procedures for client contact, timely reporting, compliance monitoring, reconciliation process with

OP&F's custodian and responsiveness to reporting data and formatting requirements.

- D. Investment philosophy and process;
1. Defined philosophy and process implementation, as measured by whether the philosophy is effectively communicated and what the process is and why it works. It should be identified as to whether the process is based on sound research and whether or not they are focusing on temporary or permanent inefficiencies in the market.
 2. Portfolio construction process, as measured by whether or not the manager is benchmark oriented such that there are distinct portfolio objectives and on-going monitoring relative to these objectives. It should be identified as to whether the process contains risk controls, and if so, are they part of a disciplined process and who is performing the monitoring.
 3. Research, as measured by whether there are appropriate resources given the product style, whether the research performed is qualitative or quantitative, and whether or not there are separate research departments by product type or one fully integrated research staff.
 4. Sources of information, as measured by whether the data used in the process is collected and/or assimilated by outside organizations or generated internally and how the information is processed and interpreted.
- E. Investment performance and risk control;
1. The investment manager's alpha for active managers and tracking error for passive managers relative to the target benchmark. Active managers will also be expected to rank in the top half of managers with similar objectives over a 3 to 5 year period, if available. Additional focus will be placed on return/risk ratios and information ratios which incorporate both absolute and manager specific risk.
- F. Investment fees;
1. Investment management fees shall be competitive and of an appropriate structure for the product type and assets under management.

MONITORING RESPONSIBILITIES

It is important for the roles of the participants in the implementation of this Policy be clear and delineated. The following is intended as a guide to reflect the overall framework for the participants in the process. Participant responsibilities may vary from time to time.

Board—Responsible for the overall management of OP&F and investment manager relationship. Staff and consultant will provide the Board with periodic updates on the investment structure, overall investment manager performance and compliance with guidelines.

Investment Committee—Responsible for the overall management of OP&F's investment program. This shall include ongoing review of the asset allocation plan, investment structure, investment performance and other related issues. The Committee shall be responsible for recommending investment policies and procedures and shall assign investment managers to a monitoring category (except that only the Board may assign categories 4 and P4, termination).

Staff—Responsible for the day-to-day management of this Policy and the investment manager relationship, including investment reporting and investment guideline compliance. Staff will report all material manager issues to the consultant for review and to the Board for its consideration.

Investment Consultant—Responsible for assisting the staff and Board in establishing strategic investment policy and strategy. The consultant will monitor the consistency of investment manager mandates with the investment objectives, investment manager guidelines and will prepare quarterly performance measurement reports. The consultant will report all material investment manager issues to the staff and Board.

Investment Manager—Responsible for managing the investment portfolio within the objectives and guidelines established by the Board. The investment manager is responsible for self-monitoring of the portfolio and notifying the staff when there are any deviations from the guidelines and when modifications to the guidelines may be appropriate. The investment manager is responsible for the quality and timeliness of its reporting, including the reconciliation of its portfolio with OP&F's custodian.

FREQUENCY OF MONITORING

The investment manager's performance, risk and portfolio characteristics will be monitored on a monthly/quarterly basis, or more frequently, and will be evaluated relative to the Board approved investment manager guidelines and objectives.

MANAGER MONITORING CONCLUSIONS

The Board seeks long term and successful relationships with its investment managers. The monitoring process is intended to ensure the success of the relationship. All investment managers will be assigned, as noted above, to one of the following categories, which will be reviewed by the Investment Committee at least annually:

1. Retain the investment manager with no material changes in the relationship;
2. Retain the investment manager with issues of a non material nature to be noted and monitored on a regular basis;
3. Retain the investment manager and place on probation with specific material issues identified and a plan and time period developed to resolve issue; and
4. Terminate the investment manager relationship and redeploy the assets.

Where potentially material and adverse issues arise in OP&F's current investment manager relationships, the Investment Committee will review the issues and may re-assign the manager to another category in the case of 1-3 rating. The assignment of a 4 rating must be approved by the Board.

Once a manager has been downgraded, they may not be upgraded for at least 6 months. During this time period the reasons for the rating downgrade will be evaluated thoroughly by the staff and the manager's progress on their corrective action plans will be followed. Although managers will be prohibited from obtaining a rating upgrade within 6 months of a rating downgrade, a manager may be further downgraded or recommended for termination at any time.

In conjunction with the annual manager evaluation conducted by the staff and the Investment Committee, the following review schedule will be followed for managers rated either a '2' or '3':

'2' —The staff and the Investment Committee will review manager performance and the issues which resulted in the rating downgrade at least every 6 months until the rating has been upgraded to a '1'. Further downgrading to a '3' will result in the review schedule noted below:

'3' —Due to the severity of this rating, quarterly reviews will be conducted of managers rated a '3'.

When deemed necessary by the staff or Investment Committee, managers will be requested to attend these reviews.

In the case of investment managers or general partners who act as managers of private, essentially non-marketable, investment vehicles such as private equity and commingled real estate investment funds, all investment managers will be assigned, as noted above, to one of the following categories which will be reviewed by the Investment Committee at least annually:

- P1. The investment manager may be considered for future assignments.
- P2. The investment manager has specific material issues which need to be resolved before the manager may be considered for future assignments.
- P3. The investment manager may not be considered for future assignments.
- P4. Removal of the investment manager or sale of our interest should be actively pursued and acted upon if in the best interest of OP&F.

Where potentially material and adverse issues arise in OP&F's current investment manager relationships, the Investment Committee will review the issues and may re-assign the manager to another category in the case of a P1-P3 rating. The assignment of a P4 rating must be approved by the Board.

TERMINATION OF AN INVESTMENT MANAGER

The Board will review the adverse material issues and circumstances prior to terminating an investment manager. The major issues to consider will include:

- Longer term prospects of the investment manager in correcting the issue;
- Potential changes in the relationship;
- The cost of termination;
- Replacement alternatives; and
- How the investment manager's assets will be redeployed.

MANAGER DUE DILIGENCE VISITS

The staff will meet with those investment managers whose performance falls below the 70th percentile relative to their peers for all of the following: current quarter; year-to-date; and trailing one year time periods. The staff will also meet with investment managers for non-performance issues that are material to the relationship, including but not limited to: firm or investment product stability, key professional turnover, client service and investment reporting.

| X. *Communications*

Each manager will provide hard copy reports at least quarterly, including performance measurement, asset inventories, transaction summaries, market commentary or anything else deemed significant at the time of reporting. Each manager is expected to meet with OP&F's Board at least annually, unless notified otherwise.

| XI. *Investment Manager Search Policy*

The selection of investment managers will be conducted only under a Request for Proposal (RFP) process that will consider the following issues:

- A. The investment strategy for the manager search will be considered within the strategic asset allocation plan, investment structure and other applicable investment policies and procedures approved by the Board.
- B. The RFP minimum criteria will be consistent with the search investment strategy and will be established by the Investment Committee, with the assistance of staff and the investment consultant. The selection criteria may include such items as:
 1. Stability and experience of firm in the investment product;
 - a. Stability of the firm, as measured by the quality of the organizational structure of the firm; the existence of, or potential for, significant developments in the firm; and the expected financial stability of the firm.
 - b. Experience of the firm in providing investment management services to similar institutional

- investors, as measured by the firm's history of providing such services.
 - c. Ownership of the firm, as measured by the depth and structure of the incentive programs and the ownership type for key investment professionals in the subject product.
 - d. Firm commitment to improvement as measured by whether or not there is a clear business plan/strategy, reinvestment in the firm with an overall commitment for enhancements/improvements.
 - e. Adverse organizational issues, as measured by the existence of litigation or other investigations; and the existence of financial problems.
2. Quality, stability, depth and experience of investment professionals;
 - a. Experience of portfolio manager(s) in providing similar services to similar institutional investors, as measured by the length of time the portfolio manager(s) has served as a portfolio manager to such investors; demonstrated expertise in providing such services to other such investors.
 - b. Stability of the firm's professional base, as measured by personnel turnover.
 - c. Depth of personnel, as measured by the firm's account/portfolio manager and account/investment management personnel ratios; and back up procedures for providing services to OP&F in the absence of the portfolio manager(s).
 3. Client service and relationships;
 - a. Assets under management, as measured by the amount in the subject product as well as the experience of managing other similar asset class products.
 - b. The similarity of a firm's clients to OP&F, as measured by the amount of institutional tax exempt assets under management and the size of the individual accounts currently under management.
 - c. Stability of the firm's client base, as measured by the number of accounts gained or lost.
 - d. Procedures for client contact, timely reporting, compliance monitoring, reconciliation process with OP&F's custodian and responsiveness to reporting data and formatting requirements.
 4. Investment philosophy and process;
 - a. Defined philosophy and process implementation, as measured by whether the philosophy is effectively communicated and what the process is and why it works. It should be identified as to whether the process is based on sound research and whether or not they are focusing on temporary or permanent inefficiencies in the market.
 - b. Portfolio construction process, as measured by
 - whether or not the manager is benchmark oriented such that there are distinct portfolio objectives and on-going monitoring relative to these objectives. It should be identified as to whether the process contains risk controls, and if so, are they part of a disciplined process and who is performing the monitoring.
 - c. Research, as measured by whether there are appropriate resources given the product style, whether the research performed is qualitative or quantitative, and whether or not there are separate research departments by product type or one fully integrated research staff.
 - d. Sources of information, as measured by whether the data used in the process is collected and/or assimilated by outside organizations or generated internally and how the information is processed and interpreted.
 5. Investment performance and risk control;
 - a. The investment manager's alpha for active managers and tracking error for passive managers relative to the target benchmark. Active managers will also be expected to rank in the top half of managers with similar objectives over a 3 to 5 year period, if available. Additional focus will be placed on return/risk ratios and information ratios which incorporate both absolute and manager specific risk.
 6. Investment fees;
 - a. The total cost of performing investment advisory services as measured by the Fee Proposal based on a total account size. The managers in the search will be evaluated relative to each other as well as to a representative peer universe.
- C. The search may be on a closed or open manager universe basis. Closed universe searches shall be used only in circumstances where an expedited process is required to avoid material harm to OP&F or where there is approval by a super majority of the Board (7 or more) to reconsider the finalists of a prior search concluded within the preceding two years. The retention of a manager in a closed universe search shall be subject to a due diligence review by the Investment Committee, staff and consultant. When reopening a prior search, due diligence shall be performed on those managers constituting the finalists of the original search.
 - D. RFPs will be sent to managers identified as likely to meet the stated qualifications and to those requesting the RFP in an open universe search. An advertisement will be placed in an investment industry or national business publication in open universe searches. In closed universe searches, the Investment Committee shall approve all potential candidates with the assistance of the staff and consultant.

- E. Staff, with the assistance of the Board's investment consultant, will review all timely submitted RFPs to ensure that all search criteria have been met.
- F. Staff, with the assistance of the Board's investment consultant, will evaluate all RFPs having met established criteria and produce a written report summarizing the findings and manager rankings to the Investment Committee. The staff and consultant may produce separate reports to the Investment Committee where there may be material differences in findings or manager rankings.
- G. The Investment Committee will consider the staff and consultant report as well as other material information when determining the list of managers for finalist interviews.
- H. The staff and/or investment consultant may conduct a due diligence visit with the finalists prior to the finalist interviews.
- I. The Investment Committee will interview and evaluate the finalists with the assistance of staff and the investment consultant.
- J. Only the Investment Committee has authority to recommend managers to the Board for final consideration. The recommendations may also include information on the amount and timing of funding, investment guidelines and fees.
- K. The Board will approve or fail to approve the manager recommendations of the Investment Committee. The Board may approve, fail to approve or modify the amount and/or timing of funding, investment guidelines and fees of the approved managers.

| XII. Review Procedures

In addition to the regular performance reviews, the Board in conjunction with its consultant will review this policy statement at least once a year to determine if revisions are warranted. It is not expected that investment policy will change frequently, in particular short term changes in the financial markets should generally not require an adjustment in the investment policy.



Actuarial Section

- 1. Report of Actuary**
- 2. Summary of Actuarial Assumptions and Methods**
- 3. Active Member Valuation Data**
- 4. Retirants and Beneficiaries Added to
and Removed from Rolls**
- 5. Short-Term Solvency Test**
- 6. Plan Summary**

1. Report of Actuary



December 20, 2001

Watson Wyatt & Company

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1001 Lakeside Avenue
Cleveland, OH 44114-1172
Telephone 216 937 4000
Fax 216 937 4101

Board of Trustees
Ohio Police and Fire Pension Fund
140 East Town Street
Columbus, Ohio 43215

Members of the Board:

This is our actuarial certification letter with respect to the January 1, 2001 actuarial valuation report of the Ohio Police and Fire Pension Fund ("Fund"). Certain information in the 2001 actuarial valuation report and prior reports prepared by Watson Wyatt has been used by the Fund to prepare all the actuarial schedules in the 2001 Comprehensive Annual Financial Report. Specifically:

1. Actuarial Section – Schedule 2: the summary of actuarial assumptions and methods is essentially Table 7 from the 2001 actuarial report.
2. Actuarial Section – Schedule 3: the number of actives, average salary and average annual salary increases were taken from 2001 and prior actuarial reports.
3. Actuarial Section – Schedule 4: the counts of retirants added and removed were taken from 2001 and prior actuarial reports.

In order to assist the Board in its financial objective of ensuring the long-term solvency of the Fund, Watson Wyatt Worldwide, as Actuary, prepares an actuarial valuation of the Fund on an annual basis. The actuarial valuation develops the normal cost and unfunded actuarial accrued liability under the Entry Age Normal actuarial cost method. The period required to amortize the unfunded actuarial accrued liability, via a level percentage of expected future annual Member payroll, is determined assuming a constant active Member population and a 4% annual payroll growth. Contributions and payroll growth are assumed to occur continuously during each year. A separate report comments on the expected period of time over which the Health Care Stabilization Fund (HCSF) will retain a positive balance assuming employer contribution allocations to the HCSF increase from 7.50% in 2001 to 8.0% in 2003.

The 2001 valuation develops an amortization period of 29.49 years. The 29.49 compares to 26.78 years developed in the 2000 actuarial valuation. The increase is due to investment performance during 2000 and due to the shift of 0.25% of payroll from pensions to health care. The 2001 HCSF Report shows that the HCSF is expected to be maintained through the year

Board of Trustees
December 20, 2001
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2007 under the new member premium schedule and the new health care trend rates developed in late 2000.

Section 742.16 of the Revised Code, as amended by Senate Bill No. 82, requires the Board of Trustees to establish as one financial goal of the Fund that the annual actuarial valuation shall produce an amortization period of not more than 30 years, beginning in 2007 and pursuant to a plan established by the Board.

Section J of the 2001 valuation report discusses the adequacy of the current statutory contribution rates in light of the requirements of Senate Bill 82. Therein we conclude that if the Fund is able to earn approximately an 8.5% average rate of return over the 30-year period beginning in 1998, and net health care costs to the Fund are effectively managed, then the Senate Bill 82 funding requirements should be met. The results of this valuation and the April 10, 1998 Forecast Study, as modified to include the improved spousal benefits of House Bill 194 and House Bill 275, can be used to prepare a plan under which the Board will meet the funding objectives of Senate Bill 82.

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

The actuarial assumptions used in the valuation are recommended by Watson Wyatt and approved by the Board. The decrement assumptions reflect actual Fund experience as measured in the quinquennial evaluations and interim studies. In general, the decrement assumptions used for the 2001 valuation are based on Fund experience during the period beginning in 1992 and ending in 1996. The interest rate and salary scale assumptions reflect both recent Fund rates of return and salary increases and expected returns and salary increases over the next 30 years. These assumptions, along with actuarial cost and asset valuation methods, meet the parameters presented in Government Accounting Standards Board Statement No. 25.

For most asset classes the actuarial value of assets used in the valuation is the cost value as presented in the audited Financial Statements. The actuarial value of stocks is determined under the 4-Year Market Adjustment method, under which realized and unrealized gains or losses are recognized in the assets over 4-year periods. The actuarial value of assets is reduced by (1) the member contributions which have yet to be refunded to members who terminated with less than 15 years of service, (2) certain Fund liabilities and (3) the reported value of the Health Care Stabilization Fund.



Board of Trustees
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The benefit provisions valued in the valuation report reflect the status of the Ohio Revised Code as of the valuation date.

Under current law the Ohio Retirement Study Council is to annually review the actuarial report and make recommendations to the General Assembly concerning proper financing of the Fund. The policy of annual reporting, review, and, if necessary, legislative change in the statutory rates should ensure that the financial condition of the Fund remains sound.

Respectfully Submitted,

WATSON WYATT WORLDWIDE



Wayne E. Dydo
Fellow - Society of Actuaries
Member - American Academy of Actuaries



Peter N. Dorsey
Associate - Society of Actuaries
Member - American Academy of Actuaries

WED/PND:ca

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2. Summary of Actuarial Assumptions and Methods

A. INTEREST

A rate of 8¼% per annum, compounded annually. Adopted by the Board of Trustees in 1989.

B. RATES AND OTHER ASSUMPTIONS AMONG ACTIVE MEMBERS

1. Before Retirement:

a) Mortality:

Mortality is based on the 1994 Group Annuity Mortality Reserving Table with a five-year set-back in age. The following rates at selected ages are illustrative:

Age	Rate of Mortality	
	Police	Fire
25	.000507	.000507
30	.000661	.000661
35	.000801	.000801
40	.000851	.000851
45	.001072	.001072
50	.001578	.001578
55	.002579	.002579

b) Termination:

The rates of termination are based upon the results of the 1992-1996 Quinquennial Evaluation. The following rates at selected ages are illustrative:

Age	Rate of Termination	
	Police	Fire
25	.032100	.010674
30	.022530	.008650
35	.018580	.007568
40	.013325	.005845
45	.009219	.004235
50	.009688	.006715

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 1992-1996 Quinquennial Evaluation. A 5% load has been applied to the 1992-1996 experience rates due to the volatility in this decrement. The following rates at selected ages are illustrative:

Age	Rate of Disability	
	Police	Fire
25	.000280	.000017
30	.001709	.000837
35	.005926	.002592
40	.011606	.005899
45	.019363	.014365
50	.027948	.031516
55	.036083	.042174

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

	Police	Fire
On duty permanent and total	20%	20%
On duty partial	76	76
Off duty ordinary	4	4

d) Salary Increase Rate:

The per annum rates of future salary increase can be divided into two component parts: (i) inflationary increase of 4% per year and (ii) age-graded promotional increases.

	Promotional Increase	Total Increase
Under 30	3.00%	7.00%
30 - 34	1.75%	5.75%
Over 34	1.00%	5.00%

e) Retirement:

The rates of retirement are based upon the experience during the periods 1990 through 1993 and the results of the 1992-1996 Quinquennial Evaluation. These rates are applicable after the member has satisfied the conditions for retirement.

Police		Fire	
Age(s)	Rate	Age(s)	Rate
48	0.35	48	0.35
49 - 53	0.25	49 - 59	0.25
54 - 60	0.20	60 - 64	0.35
61 - 64	0.25	65	1.00
65	1.00		

2. After Retirement:

a) On Service Retirement Pension:

For active members expected to go on service retirement, the post-retirement mortality rates equal the 1994 Group Annuity Mortality Reserving Table with two-year set-forward in age. The following probabilities at selected ages are illustrative:

<u>Age</u>	<u>Probability of Mortality</u>
50	.003213
55	.005581
60	.010147
65	.018034
70	.028481
75	.045171
80	.075532
85	.115671
90	.182281
95	.268815

b) On Disability Retirement Pension:

For active members expected to go on disability retirement, the post-retirement mortality rates are based on the results of the 1992-1996 Quinquennial Evaluation. The rates are based on the 1994 Group Annuity Mortality Reserving Table with a two years set forward in age and with loads for disability. The following probabilities at selected ages are illustrative:

<u>Age</u>	<u>Probability of Mortality</u>
35	.008391
40	.008752
45	.009399
50	.010713
55	.013081
60	.020147
65	.028034
70	.048481
75	.070171
80	.100532
85	.140671
90	.207281
95	.268815

C. PROBABILITIES OF MORTALITY AMONG PENSIONERS

1. Nondisabled Pensioners:

The mortality among all nondisabled retirants is equal to the 1994 Group Annuity Mortality Reserving Table rates with a two-year set-forward in age. The following probabilities at selected ages are illustrative:

<u>Age</u>	<u>Probability of Mortality</u>
50	.003213
55	.005581
60	.010147
65	.018034
70	.028481
75	.045171
80	.075532
85	.115671
90	.182281
95	.268815

2. Disabled Pensioners:

The mortality among all disabled retirants is equal to the 1994 Group Annuity Mortality Reserving Table with a two-year set-forward in age and with loads for disability. The following probabilities at selected ages are illustrative:

<u>Age</u>	<u>Probability of Mortality</u>
35	.008391
40	.008752
45	.009399
50	.010713
55	.013081
60	.020147
65	.028034
70	.048481
75	.070171
80	.100532
85	.140671
90	.207281
95	.268815

D. PROBABILITIES AMONG SURVIVORS

1. Probabilities of Mortality Among Surviving Spouses:

The mortality among all present surviving spouses is based on the Projected Annuity Mortality Table with a six year setback in age. The following probabilities at selected ages are illustrative:

<u>Age</u>	<u>Probability of Mortality</u>
35	.000871
40	.001193
45	.001722
50	.002932
55	.005410
60	.008910
65	.013397
70	.020560
75	.033488
80	.054712
85	.091172
90	.144016
95	.207993

2. Probability of Remarriage Among Surviving Spouses:

The valuation no longer uses a remarriage assumption. HB 648 removed the remarriage penalty for surviving spouses.

3. Dependent Children:

No specific allowance has been made, in the valuation 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 1/3 of the dependent children will be students and eligible for payments to age 22.

4. Dependent Parents:

Costs based upon allowance for mortality (the Projected Annuity Mortality Table rates) 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

Fund expenses are divided into investment expenses and administrative expenses. The valuation interest rate is considered to be net of all investment expenses and net of administrative expenses up to 0.05% of market value assets. Excess administrative expenses (above 0.05% of market value) are loaded onto the Normal Cost. OP&F provides estimated valuation year expenses.

G. STATE SUBSIDY CREDIT

The subsidy received from the State of Ohio during the valuation year is an offset to the Normal Cost.

H. ACTUARIAL COST METHOD

The Entry Age Normal Cost Method has been used. This is a method under which the actuarial present value of the projected benefits of each participant included in the actuarial valuation is

allocated on a level basis over the service of the individual between entry age and assumed decrement age. That portion of the actuarial present value allocated to a valuation year is called the normal cost. That portion of the actuarial present value not provided for at a valuation date by the future normal costs is called the actuarial liability.

The amortization period is determined as an open (rolling) period. For this calculation, total payroll is assumed to grow at 4.00% per annum.

The employer accrued liability was determined for each separate police and fire 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.

I. VALUATION ASSETS

Valuation assets equal the net cost (book) value of all OP&F assets, except common and preferred stocks are included in valuation assets with a value equal to that developed under the 4-year Market Adjustment Method, with an initial value equal to market value. Under this method realized and unrealized gains on stocks are recognized in the assets over a 4-year period: valuation assets equal market value less 75% of the previous year's realized and unrealized gains, 50% of the second previous year's realized and unrealized gains, and 25% of the third previous year's realized and unrealized gains. The balance in the Health Care Stabilization Fund is excluded from total assets to arrive at valuation assets for pension and disability benefits. Contributions due to be refunded to terminated members are also excluded from valuation assets.

Future payments on the employer accrued liability (local funds receivable) are discounted at the valuation rate to determine the present value at the valuation date. This value is added to valuation assets.

3. Active Member Valuation Data

Actuarial Valuation as of Jan. 1	Number of Employers		Number of Active Members		Average Annual Salary		Percentage of Average Annual Salary Increases		Annual Payroll (Millions)
	Police	Fire	Police	Fire	Police	Fire	Police	Fire	
1996	574	310	14,558	10,728	41,017	41,528	2.7%	3.5%	\$ 1,042.6
1997	582	316	14,851	10,972	42,049	42,509	2.5%	2.4%	1,119.9
1998	616	354	15,247	11,316	43,561	44,077	3.6%	3.7%	1,190.9
1999	621	353	15,533	11,600	44,892	45,052	3.1%	2.2%	1,249.1
2000	590	350	15,775	11,867	47,241	47,416	5.2%	5.2%	1,338.5
2001	573	352	15,778	12,158	49,113	49,459	4.0%	4.3%	\$ 1,407.6

4. Retirants and Beneficiaries Added to and Removed from Rolls

Year at Jan. 1	Police		Fire		Total Members at Year End	
	Additions	Removals	Additions	Removals	Police	Fire
1996	821	391	580	366	11,177	8,989
1997	760	400	666	358	11,537	9,297
1998	610	418	431	444	11,729	9,284
1999	878	445	636	348	12,162	9,572
2000	783	400	599	327	12,545	9,844
2001	842	455	614	377	12,932	10,081

5. Short-Term Solvency Test

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 pres-

ent 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. Because OP&F changed its actuarial cost method from the aggregate method to the entry age normal method effective January 1, 1997, comparable solvency test data is not available for years prior to that date.

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	1997	\$ 498,283	\$ 1,964,911	\$ 1,520,487	\$ 3,065,410	100%	100%	40%
Fire	1997	\$ 380,192	\$ 1,537,474	\$ 1,123,208	\$ 2,488,704	100%	100%	51%
Police	1998	\$ 524,911	\$ 2,214,921	\$ 1,634,939	\$ 3,431,556	100%	100%	42%
Fire	1998	\$ 405,865	\$ 1,683,441	\$ 1,233,600	\$ 2,799,863	100%	100%	58%
Police	1999	\$ 548,372	\$ 2,509,175	\$ 1,751,789	\$ 3,957,516	100%	100%	51%
Fire	1999	\$ 423,342	\$ 1,885,760	\$ 1,334,184	\$ 3,236,100	100%	100%	69%
Police	2000	\$ 603,980	\$ 2,674,691	\$ 1,840,992	\$ 4,330,425	100%	100%	57%
Fire	2000	\$ 467,926	\$ 1,987,723	\$ 1,420,252	\$ 3,574,761	100%	100%	79%
Police	2001	\$ 644,164	\$ 2,839,294	\$ 1,914,232	\$ 4,632,337	100%	100%	60%
Fire	2001	\$ 508,155	\$ 2,089,072	\$ 1,511,366	\$ 3,865,732	100%	100%	84%

6. Plan Summary

| Purpose

The Ohio Police & Fire Pension Fund (OP&F) was established by the Ohio General Assembly to provide disability and pension benefits to members of OP&F and their surviving spouses, children, and dependent parents.

| Administration

The administration, control, and management of OP&F are vested in the Ohio Police & Fire 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 police and one fire position being a retired member or surviving spouse. 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 OP&F. The executive director oversees the daily activity of the staff.

| Membership

Membership in OP&F is mandatory under Ohio law for all full-time police officers employed by Ohio municipalities. Full-time firefighters employed by townships, municipalities, joint fire districts or other political subdivisions must become members of OP&F if satisfactory completion of a firefighter training course approved under former Section 3303.07, Section 4765.55 or conducted under Section 3737.33 of the Ohio Revised Code is required for employment.

| Contributions

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

¹ *Average annual salary means one-third of the total salary during the three years of highest earnings.*

| Benefits

A. SERVICE RETIREMENT

Upon attaining a qualifying age with sufficient service credit, a member of OP&F may retire and receive a lifetime monthly cash pension.

1. Normal Pension

- (a) Eligibility: Age 48 and 25 years of service.
- (b) Benefit: An annual pension equal to a percentage of the “average annual salary.” 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 each year of service in excess of 25 years, to a maximum of 72% of the “average annual salary.”

2. Service Commuted

- (a) Eligibility: 15 years of service.
- (b) Benefit: Commencing at age 48 plus 25 years 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.

3. Age/Service Commuted

- (a) Eligibility: Age 62 and 15 years of service
- (b) Benefit: The same formula applies as for the normal service pension.

B. DISABILITY RETIREMENT

Members who become unable to perform their official duties and whose earning capacities are impaired may qualify for disability retirement benefits.

Disability retirement benefits are classified as either service-incurred (on-duty) or non-service-incurred (off-duty), and differ in eligibility requirements and benefit formulas. Annual medical evaluations are required for disability benefit recipients who would not have met the age and service requirements for normal service retirement unless an OP&F physician certifies the disability is ongoing and further evaluation would not be cost effective.

1. Permanent and Total Disability (On-Duty)

- (a) Eligibility: No age or service requirement.
- (b) Benefit: An annual benefit equal to 72% of the average annual salary¹.

2. Partial Disability (On-Duty)

- (a) Eligibility: No age or service requirement.
- (b) Benefit: An annual benefit fixed by the Board of Trustees to be a certain percent of the average annual salary¹ up to 60%.

If the member has 25 or more years of service the annual disability benefit is equal to the accrued normal service pension.

3. Non-service Incurred Disability (Off-Duty)

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

(b) Benefit: An annual benefit is the percent awarded by the Board and may not exceed 60% of the average annual salary¹. Service credit over 25 years cannot be used in calculating an off duty disability award.

C. RIGHTS UPON SEPARATION FROM SERVICE

1. Deferred Pension

If a member meets the service credit requirement for any service retirement pension but leaves service before attaining the required age, a pension becomes payable upon attainment of the qualifying age.

2. Refund of contributions

Upon separation from service, a member can receive the contributions made to the plan by himself or, on his behalf, by his employer. Employer contributions are not refundable

D. FLAT SURVIVOR BENEFITS

1. Eligibility:

Upon death of any member of OP&F, active or retired.

2. Benefit:

(a) Surviving Spouse's Benefit-An annual amount equal to \$6,600, plus an annual cost of living allowance of 3% of the original base, paid each July 1.

(b) Surviving Child-An annual amount equal to \$1,800, payable until such child attains age 18 or marries, whichever occurs first. The payment can continue to an unmarried full-time student until age 22. A dependent disabled child is entitled to a benefit regardless of age at time of member's death until marriage, death, or recovery. A cost-of-living allowance of 3% of the original base is payable each July 1.

(c) Dependent Parents-If there is no surviving spouse or children, an annual amount of \$2,400 is payable to one dependent parent or \$1,200 each to two dependent parents for life or until dependency ceases or remarriage. A cost-of-living allowance of 3% of the original base is payable each July 1.

E. LUMP SUM DEATH BENEFIT

On the death of a retired member of OP&F, a lump sum payment of one thousand dollars (\$1,000) is paid to the member's surviving spouse, or the estate if there is no surviving spouse.

F. ANNUITIES

Effective February 28, 1980 for those retiring on either service pensions or disability benefits, optional annuity plans can be

chosen. Members can elect actuarially reduced benefits under a joint and survivor annuity or life annuity certain and continuous plans.

Effective April 25, 1984, Pre-retirement Survivor Annuity was added to the plan.

Annuity Types

1. Pre-retirement Survivor 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 the equivalent of a 50% joint and survivor annuity, calculated under the assumption that the decedent had retired effective the day following his death.

2. Single Life Annuity

For unmarried members, this is the normal annuity plan. Married members may elect this plan only if the spouse consents to the selection.

3. Joint and Survivor Annuity

For married members, this is the normal annuity plan at the 50% continuation level. Any percent between 1% and 100% of the members reduced pension may be continued to the surviving nominated beneficiary. This plan automatically terminates upon death of the beneficiary or it may be cancelled upon divorce with the consent of the member's spouse.

4. Life Annuity Certain and Continuous

The minimum guarantee is 5 years and the maximum is 20 years. 100% of the members reduced pension continues to the beneficiary for the guarantee period selected.

G. 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 OP&F. Medical expense benefits are not a vested right and are subject to change at any time upon action of the Board of Trustees.

Effective January 1, 1977, OP&F will pay the premium for supplemental Medicare (Part B), upon obtaining the proper documentation from members of their enrollment in the medicare program

H. TIERED RETIREMENT PLAN: COLA or Terminal Pay

Members retiring after July 24, 1986, who had 15 or more years of service as of January 1, 1989, are allowed to select between two different pension calculation plans. Under the terminal pay method, a pension is calculated using terminal payments such as accrued sick leave and vacation compensation to increase the

average annual salary. Under the COLA method, no terminal payments are added, but the pension is subject to annual increases equal to a 3% increase of the original base per year. The COLA method is the automatic calculation method for an active member with fewer than 15 years of service as of January 1, 1989.

I. POST-RETIREMENT COST-OF-LIVING ALLOWANCE (COLA)

Members who retired prior to July 24, 1986 or their surviving beneficiaries under optional plans are entitled to cost-of-living increases. The annual increase is paid on July 1st of each year. The annual COLA increase is \$360 under a Single Life Annuity Plan with proportional reductions for optional payment plans.

J. RE-EMPLOYED RETIRANTS' DEFINED CONTRIBUTION PLAN BENEFIT

Effective June 30, 1991, every person who is retired under an Ohio Public pension plan and who is employed in a Fund-covered position must contribute to OP&F at the same rate as other police officers or firefighters. The employer pays the normal rate as well. When the re-employed retirant terminates employment, he or she has the option of receiving either a lump sum payment or a lifetime annuity paid monthly.

The lump sum payment is an amount equal to twice his contributions plus interest. The lifetime monthly cash payment is based on the value of the lump sum option. If the monthly annuity would be less than \$25, then only the lump sum option is available.



Statistical Section

- 1. Revenues by Source**
- 2. Expenses by Type**
- 3. Benefit Expenses by Type**
- 4. Retired Membership by Type of Benefits**
- 5. Average Monthly Benefit Payments**
- 6. Number of Employer Units**
- 7. Death Benefit Fund**

1. Revenues by Source

Year	Member Contributions and Purchases	Employer Contributions	Employer Contributions as a percentage of Covered Payroll	Investment and Securities Lending Income*	Other Revenues	Total
1996	\$ 115,314,953	\$ 236,214,576	20.5%	\$ 457,910,608	\$ 19,930,072	\$ 829,370,209
1997	121,104,430	248,145,383	20.5%	1,118,944,933	19,408,804	1,507,603,550
1998	128,673,433	261,618,507	20.3%	913,733,524	19,282,940	1,323,308,404
1999	135,814,320	279,474,521	20.6%	1,101,763,658	18,829,767	1,535,882,266
2000	144,967,340	304,889,375	21.0%	(165,140,849)	16,504,642	301,220,508
2001	150,531,967	312,085,249	20.6%	(443,461,307)	16,776,846	35,932,755

* Effective January 1, 1997, net investment income includes the net appreciation in fair value of investments, which can create significant fluctuations. Also, for 1997 investment income is net of direct investment administrative expenses.

2. Expenses by Type

Year	Benefit Payments	Administrative Expenses**	Refund of Employee Contributions	Discount on on Early Payoff	Other Expenses	Total
1996	\$ 420,382,559	\$ 17,778,992	\$ 5,602,382		\$ 312,441	\$ 444,076,374
1997	449,956,880	8,245,224	5,655,445		381,672	464,239,222
1998	482,070,798	10,899,807	5,685,196	\$ 8,864,703	591,938	508,112,442
1999	542,653,929	11,548,719	11,389,439	12,470,563	887,352	578,950,002
2000	573,783,703	13,224,510	11,069,721	22,321,629	713,134	621,112,697
2001	621,572,113	13,122,347	10,438,362	3,721,025	1,050,563	649,904,410

** Beginning in 1997, administrative expenses are net of direct investment expenses.

3. Benefit Expenses by Type

Year	Retirement	Disability	Survivor	Health Care	Total Benefits
1996	\$ 225,448,375	\$ 91,638,835	\$ 31,621,014	\$ 71,674,335	\$ 420,382,559
1997	244,008,942	97,064,363	32,423,743	76,459,832	449,956,880
1998	263,238,748	101,409,248	33,494,497	83,928,305	482,070,798
1999	282,847,246	107,409,570	51,874,382	100,522,731	542,653,929
2000	301,252,668	115,063,199	45,650,351	111,817,485	573,783,703
2001	319,641,712	125,003,758	47,753,173	129,173,470	621,572,113

4. Retired Membership by Type of Benefits

Year	Service		Disability		Survivors		Total Beneficiaries
	Police	Fire	Police	Fire	Police	Fire	
1996	5,399	4,765	2,686	1,823	2,885	2,286	19,844
1997	5,602	4,858	2,739	1,861	2,898	2,306	20,264
1998	5,571	4,926	2,749	1,869	3,104	2,391	20,610
1999	5,968	5,004	2,841	1,945	3,162	2,472	21,392
2000	6,204	5,125	2,947	2,021	3,211	2,451	21,959
2001	6,312	5,155	3,046	2,082	3,244	2,550	22,389

5. Average Monthly Benefit Payments

for Members Placed on Retirement Rolls

| Service Retirement

Year	Normal	Service Commuted	Age Commuted	Age/Service
1996	\$ 2,508	\$ 614	\$ 0	\$ 1,314
1997	2,624	564	0	1,311
1998	2,780	835	0	2,091
1999	2,828	653	0	1,300
2000	2,783	732	0	1,232
2001	2,987	830	0	1,500

| Disability Retirement

Year	Permanent and Total	P&T Presumptive	Partial	Partial Presumptive	Off Duty
1996	\$ 2,549	\$ 2,467	\$ 1,974	\$ 2,143	\$ 1,442
1997	2,454	2,633	1,853	2,129	1,220
1998	2,321	2,968	1,953	2,134	1,330
1999	2,388	2,559	2,194	2,361	1,629
2000	2,380	2,061	2,380	2,258	1,760
2001	2,373	2,858	2,332	2,278	1,649

6. Number of Employer Units

Calendar Year	Municipalities		Townships		Villages	
	Police	Fire	Police	Fire	Police	Fire
1996	242	195	0	85	332	30
1997	242	195	0	88	340	33
1998	269	214	0	107	347	33
1999	270	213	0	107	351	33
2000	258	213	0	105	332	32
2001	251	215	0	105	322	32

7. Death Benefit Fund

Pursuant to Section 742.63 of the Ohio Revised Code, the Board of Trustees of the Ohio Police & Fire Pension Fund administers the State of Ohio Public Safety Officers Death Benefit Fund (DBF). This program was established by the State of Ohio to provide monthly benefit payments to surviving family members of Ohio firefighters and law enforcement officers who have been killed in the line of duty or die of a duty-related accident or ill-

ness. Funds are disbursed to OP&F each State fiscal year (July 1-June 30) and are paid monthly by OP&F to eligible recipients. The unused balance at June 30 is returned to the State. The assets and liabilities of the DBF are included in OP&F's combining statement of plan net assets as of December 31, 2001 as an agency fund. The following is a schedule of DBF financial activity:

Balance January 1, 2001	\$12,311,771
Less: Survivor Benefits Paid January 1 to June 30, 2001	(8,808,789)
Balance returned to State of Ohio	(3,502,982)
State Funding Received July 2001	\$23,000,000
Less: Survivor Benefits Paid July 1 - December 31, 2001	(9,359,305)
Balance December 31, 2001	\$13,640,695

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Comprehensive Annual Financial Report
for the year ended December 31, 2001

Prepared through the combined
efforts of the OP&F staff

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