

# **COMPREHENSIVE ANNUAL FINANCIAL REPORT**

**For the Year Ended December 31, 1998**

**The Police  
and  
Firemen's**

**Disability and Pension Fund  
of Ohio**

**POLICE AND FIREMEN'S  
DISABILITY AND PENSION FUND OF OHIO  
COMPREHENSIVE ANNUAL FINANCIAL REPORT**

**FOR THE YEAR ENDED DECEMBER 31, 1998**

**PREPARED THROUGH THE COMBINED EFFORTS OF  
THE PFDPF STAFF**

140 East Town Street / Columbus, Ohio 43215-5164 / (614) 228-2975

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Police and Firemen's  
Disability and Pension Fund  
of Ohio**

**For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended  
December 31, 1997**

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.



*Douglas R. Ellaworth*  
President

*Jeffrey L. Esser*  
Executive Director



# TABLE OF CONTENTS

## INTRODUCTORY SECTION:

	Page
GFOA Certificate of Achievement .....	Inside Cover
Board of Trustees .....	2
Administrative Staff and Professional Consultants .....	3
Letter of Transmittal .....	4

## FINANCIAL SECTION:

### Financial Statements:

Independent Auditors Report .....	10
Combining Statement of Plan Net Assets .....	12
Combining Statement of Changes in Plan Net Assets .....	14
Notes to Financial Statements .....	16

### Required Supplementary Information:

1. Schedule of Funding Progress .....	22
2. Schedule of Employer Contributions .....	22
3. Notes to the Required Supplementary Schedules .....	22
4. Year 2000 Disclosures .....	23

### Additional Information:

Administrative Expenses .....	25
Investment Expenses .....	26

## INVESTMENT SECTION:

1. Investment Report .....	28
2. Investment Portfolio Summary .....	32
3. Schedule of Investment Results .....	34
4. Investment Consultants and Money Managers .....	35
5. Schedule of Brokers' Fees .....	36
6. Investment Policy and Guidelines .....	37

## ACTUARIAL SECTION:

1. Report of the Actuary .....	48
2. Summary of Actuarial Assumptions and Methods .....	51
3. Active Member Valuation Data .....	54
4. Retirants and Beneficiaries Added to and Removed from Rolls .....	54
5. Short-Term Solvency Test .....	55
6. Plan Summary .....	56

## STATISTICAL SECTION:

1. Revenues by Source .....	60
2. Expenses by Type .....	60
3. Benefit Expenses by Type .....	60
4. Retired Membership by Type of Benefits .....	61
5. Average Monthly Benefit Payments .....	61
6. Number of Employer Units .....	61
7. Death Benefit Fund .....	63

# BOARD OF TRUSTEES

## ELECTED MEMBERS:



**Steve Young**  
Chairman  
Marion Police Department  
Term expires June 6, 1999



**Patrick J. Patton**  
Cleveland Fire Department (Retired)  
Term expires June 1, 2003



**Robert M. Beck**  
Cleveland Police Department  
Term expires June 3, 2001



**Clark "Chip" Westfall**  
Akron Police Department  
Term expires June 6, 1999



**David K. Harker**  
Dayton Fire Department  
Term expires June 4, 2000



**Kenneth Gehring**  
Toledo Fire Department  
Term expires June 2, 2002

## STATUTORY MEMBERS:



**Richard T. Balazs**  
Director of Finance  
City of Euclid  
Term expires June 3, 2001



**Betty Montgomery**  
Attorney General



**Jim Petro**  
Auditor of State



## ADMINISTRATIVE STAFF



**Allen J. Proctor**  
Executive Director



**Theodore G. Hall**  
Chief Investment Officer



**Michael Heys**  
Director of Human Resources



**Diane M. Lease**  
General Counsel



**James Martin**  
Director of Finance



**Kay Penn**  
Director of Member Services



**Michael Sawczyn**  
Chief Information Officer



**Debbie D. Young**  
Director of Benefit Services

## PROFESSIONAL CONSULTANTS

### **Actuaries:**

Watson Wyatt Worldwide

### **Independent Accountants:**

Deloitte & Touche LLP

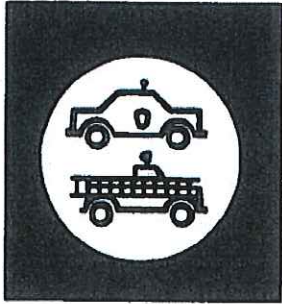
### **Legal Counsel:**

Attorney General Betty Montgomery

### **Investment Consultants and Managers:**

See page 35

# LETTER OF TRANSMITTAL



## The Police and Firemen's Disability and Pension Fund

June 25, 1999

Dear Chairman and Members of the Board of Trustees:

We are pleased to submit to you the Comprehensive Annual Financial Report (CAFR) of the Police and Firemen's Disability and Pension Fund of Ohio (the Fund) for the year ended December 31, 1998. This CAFR was prepared to aid interested parties in assessing the Fund's status at December 31, 1998, 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 the Fund; (2) the Financial Section includes the Independent Auditors' Report and the financial statements; (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 the Fund and the certification letter of Watson-Wyatt; and (5) the Statistical Section includes historical data reporting progress of the Fund.

### Accounting System and Internal Controls

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

Management is responsible for establishing and maintaining an internal control structure designed to ensure that the assets of the Fund are protected from loss, theft or misuse and to ensure that adequate accounting data is compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept 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

The Fund 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 the Fund. Assets transferred to the Fund were approximately \$75 million. The Fund's actuary computed the liabilities accrued up to 1966 at approximately \$490 million. Unfunded accrued liabilities totaling nearly \$172.6 million as of December 31, 1998 are being paid by employers over a 67-year period which began in 1969.

The Fund provides pension, disability and health care to qualified participants, survivor and death benefits and health care 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 the Fund 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 the Fund if satisfactory completion of a fire fighter training course approved under Section 3303.07 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, 1998.

#### Participating Employers

	<u>Police</u>	<u>Fire</u>
Municipalities	269	214
Townships	-	107
Villages	<u>347</u>	<u>33</u>
<b>Total</b>	<u>616</u>	<u>354</u>

#### Major Initiatives

Enactment of House Bill 648 by the Ohio Legislature effective September 16, 1998 had a large impact on retirees, survivors, active members, and employers. The Bill allows all surviving spouses who have remarried, regardless of age, to qualify for the statutory survivor benefit and medical expense benefits. The active member changes included a new calculation for the permanent and total disability award calculation. It changes from 72% of a member's annual salary for the last 12 months to 72% of the member's average salary during the three highest years of earnings. In addition, a 50 percent joint and survivor annuity is now the standard benefit unless the member's spouse consents in writing to receive a lower survivor benefit. Employers must file with PFDPF an attending physician's report of physical examination for prospective Fund members, prior to the individual becoming a member of the Fund on or after January 1, 1999. Specific deadlines now exist for submission of employee and employer contributions to PFDPF before interest is charged on delinquent contributions.

Enactment of House Bill 194 increased existing survivor benefits to \$550 per month and created a minimum benefit of \$550 per month for our oldest retirees. The Fund worked with the retiree association and other member organizations to successfully lobby for passage of the bill.

The Fund installed a new accounting and billing system on January 1, 1999. The new system, CODA, is Year 2000 compliant and will allow management to prepare and manage the Fund's financial information more efficiently.

The Fund began using an independent third party, American Arbitration Association, to perform the election process in 1998. They printed and mailed the ballots to all eligible voting members. The Association performed the official tally of the ballots and issued an official certification of the results to the Fund.

State Street Bank replaced Morgan Stanley as our international custodian. The transition was virtually seamless as staff was involved early in the process with the Treasury of State's office, who initiated the change.

In October, 1998 PFDPF upgraded to a Y2K compliant operating system on the IBM AS/400; its hardware had already been certified to be Y2K compliant. Y2K versions of the custom applications on the AS/400 were installed in April, 1999. Total cost for the program modifications was approximately \$316,000. A third-party investment accounting system will be upgraded in June, 1999. The Microsoft Windows NT network operating software is version 4.0 service pack 4, and has been certified Y2K compliant. The network server hardware has been verified as compliant and, since various computer workstations were identified as non-compliant, replacement workstations will be distributed by mid-July, 1999. An upgrade to a Y2K certified version of Microsoft Office will also occur in July, 1999. A new, Y2K-compliant employee payroll package will be installed in June, 1999, and the remaining custom PC applications will be verified in July, 1999.

## Financial Overview

The Fund 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 \$1,323,308,404 in 1998.

<u>Additions to Plan Net Assets</u>	<u>1998</u>		<u>1997</u>	
( in thousands)	<u>Amount</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>
Net Investment Income	\$ 913,734	69%	\$1,118,945	74%
Contributions	399,107	30	378,202	25
Interest on Local Funds Receivable	8,606	1	8,706	1
Other	1,861	0	1,751	0
<b>Total</b>	<u>\$1,323,308</u>	<u>100%</u>	<u>\$1,507,604</u>	<u>100%</u>

Benefit payments are the primary deductions from net plan assets.

<u>Deductions to Plan Net Assets</u>	<u>1998</u>		<u>1997</u>	
( in thousands)	<u>Amount</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>
Benefits	\$482,071	95%	\$449,957	97%
Administrative Expenses	10,900	2	8,245	2
Discount on Early Payoff of Receivables	8,865	2	0	0
Refund of Employee Contributions	5,685	1	5,655	1
Other	592	0	382	0
<b>Total</b>	<u>\$508,113</u>	<u>100%</u>	<u>\$464,239</u>	<u>100%</u>

## Funding Practices and Actuarial Overview

Funds are derived from the excess of additions over deductions, and are accumulated by the Fund in order to meet current and future benefit obligations to retirees and beneficiaries. The excess of additions over deductions for the year ended December 31, 1998, increased the fund balance by approximately \$815 million.

## Investment Policy

The Fund invests all available funds in order to maximize both current income yield and long-term appreciation. For the year ended December 31, 1998, the investment portfolio provided 69% of the Fund's total additions to plan net assets, while contributions provided 30%, respectively. All other sources provided the remaining 1%.

The primary objective of the Fund's investment policy is to assure that the Fund meets its responsibilities for providing retirement and other benefits. The portfolio is diversified to provide adequate cash flow, and to provide the highest possible total return on the Fund's assets with the least exposure to risk. The Fund's total rate of return on its investment portfolio decreased from 17.3% in 1997 to 13.8% in 1998, but was well in excess of the actuarial assumption of 8.25%.

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

## Material Plan Amendments

There were no material plan amendments in 1998.



### **Independent Audit**

The financial statements of the Fund for the year ended December 31, 1998, were audited by Deloitte & Touche LLP, independent certified public accountants, whose opinion thereon is included in of the Financial Section.

### **Notes to the Financial Statements**

The notes to the financial statements which follow the 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 the Fund for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 1997. 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 generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement Program requirements, and we are submitting it to the GFOA.

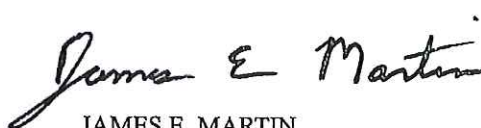
### **Acknowledgments**

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

Respectfully submitted,



ALLEN J. PROCTOR  
Executive Director



JAMES E. MARTIN  
Director of Finance

***(THIS PAGE LEFT BLANK INTENTIONALLY)***



# FINANCIAL SECTION

**Independent Auditor's Report**

**Combining Statement of Plan Net Assets**

**Combining Statement of Changes in Plan Net Assets**

**Notes to the Financial Statements**

**Required Supplementary Information:**

1. Schedule of Funding Progress
2. Schedule of Employer Contributions
3. Notes to Required Supplemental Schedules
4. Year 2000 Disclosure

**Additional Information:**

1. Administrative Expenses
2. Investment Expenses

# INDEPENDENT AUDITORS REPORT

**Deloitte &  
Touche**



**Deloitte & Touche LLP**  
155 East Broad Street  
Columbus, Ohio 43215-3611

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

## INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of the Police & Firemen's Disability & Pension Fund of Ohio:

We have audited the accompanying combining statements of plan net assets of the Police & Firemen's Disability & Pension Fund of Ohio (the "Fund") as of December 31, 1998 and 1997 and the related combining statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the Fund's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Fund as of December 31, 1998 and 1997, and the changes in plan net assets for the years then ended in conformity with generally accepted accounting principles.

The year 2000 supplementary information on page 23 is not a required part of the basic financial statements, but is supplementary information required by the *Governmental Accounting Standards Board*, and we did not audit and do not express an opinion on such information. Further, we were unable to apply to the information certain procedures prescribed by professional standards because of the unprecedented nature of the year 2000 issue and its effects, and the fact the authoritative measurement criteria regarding the status of remediation efforts has not been established. In addition, we do not provide assurance that the Fund is or will be year 2000 compliant, that the Fund's year 2000 remediation efforts will be successful in whole or in part, or that parties with which the Fund does business are or will become year 2000 compliant.

Our audits were performed for the purpose of forming an opinion on the basic financial statements of the Fund 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 the Fund, is presented for the purpose of additional analysis and is not a required part of the basic financial statements of the Fund. Such additional information has been subjected to the auditing procedures applied in our audit of

**Deloitte Touche  
Tohmatsu**



the basic financial statements for the year ended December 31, 1998 and 1997, and, in our opinion, is fairly stated in all material respects when considered in relation to the basic 1998 and 1997 financial statements taken as a whole.

In accordance with *Government Auditing Standards*, we have also issued our report date June 17, 1999, on our consideration of the Fund's internal control structure and on its compliance with laws and regulations.

*Deloitte & Touche LLP*

June 17, 1999

# POLICE AND FIREMEN'S DISABILITY & PENSION FUND

## COMBINING STATEMENT OF PLAN NET ASSETS

as of December 31, 1998 and 1997

	Pensions	Postemployment Healthcare	Death Benefit Fund	1998 Total
<b>Assets</b>				
Cash and Short-term Investments	\$ 234,747,947	7,593,523	11,015,172	\$ 253,356,642
<b>Receivables:</b>				
Employers' Contributions	55,325,153	24,102,167		79,427,320
Employees' Contributions	11,250,794	-		11,250,794
Accrued Investment Income	37,631,040	1,217,272		38,848,312
Investment Sales Proceeds	22,178,231	717,412		22,895,643
Local Funds Receivable	172,609,223	-		172,609,223
Total Receivables	298,994,441	26,036,851	-	325,031,292
<b>Investment, at fair value:</b>				
Bonds	1,270,787,534	41,106,875		1,311,894,409
Mortgage & Asset Backed Securities	1,506,971,367	48,746,845		1,555,718,212
Stocks	3,491,242,504	112,933,173		3,604,175,677
Real Estate	658,442,590	21,299,011		679,741,601
Commercial Mortgage Funds	106,013,682	3,429,284		109,442,966
Venture Capital	32,007,747	1,035,373		33,043,120
International Securities	739,970,151	23,936,228		763,906,379
Mortgage Note Receivables	12,302,058	397,942		12,700,000
Total Investments	7,817,737,633	252,884,731	-	8,070,622,36
Collateral on Loaned Securities	643,609,568	20,819,199	-	664,428,767
<b>Fixed Assets:</b>				
Furniture and Equipment	3,888,904	125,797		4,014,701
Accumulated Depreciation	(2,656,171)	(85,921)		(2,742,092)
Total Fixed Assets	1,232,733	39,876	-	1,272,609
Prepaid Expenses and Other	200,031	6,471		206,502
<b>TOTAL ASSETS</b>	<b>8,996,522,353</b>	<b>307,380,651</b>	<b>11,015,172</b>	<b>9,314,918,176</b>
<b>Liabilities:</b>				
Medical Benefits Payable	-	9,840,916		9,840,916
Investment Commitments Payable	137,121,573	4,435,548		141,557,121
Accrued Administrative Expenses	4,484,032	145,047		4,629,079
Liabilities for Death Benefit Fund Benefits			11,015,172	11,015,172
Other Liabilities	4,451,026	143,980		4,595,006
Obligations Under Securities Lending	643,609,568	20,819,199		664,428,767
<b>TOTAL LIABILITIES</b>	<b>789,666,199</b>	<b>35,384,690</b>	<b>11,015,172</b>	<b>836,066,061</b>
Net assets held in trust for pension and postemployment healthcare benefits	\$8,206,856,154	\$271,995,961	\$ -	\$8,478,852,115

(A schedule of funding progress is presented on page 22)

See Notes to Combining Financial Statements



Pensions	Postemployment Healthcare	Death Benefit Fund	1997 Total
\$ 229,530,360	\$ 7,548,476	\$ 9,689,038	\$246,767,874
56,382,817	24,546,851		80,929,668
9,889,234	-		9,889,234
41,336,996	1,359,434		42,696,430
27,694,273	910,771		28,605,044
204,605,177	-		204,605,177
<u>339,908,497</u>	<u>26,817,056</u>	<u>-</u>	<u>366,725,553</u>
1,240,504,872	40,796,006		1,281,300,878
1,329,984,376	43,738,683		1,373,723,059
3,020,894,299	99,346,986		3,120,241,285
624,724,610	20,545,077		645,269,687
110,799,904	3,643,834		114,443,738
28,632,935	941,640		29,574,575
606,864,539	19,957,720		626,822,259
12,143,637	399,363		12,543,000
<u>6,974,549,172</u>	<u>229,369,309</u>	<u>-</u>	<u>7,203,918,481</u>
747,512,638	24,583,160	-	772,095,798
3,658,079	120,302		3,778,381
(2,235,487)	(73,518)		(2,309,005)
<u>1,422,592</u>	<u>46,784</u>	<u>-</u>	<u>1,469,376</u>
<u>1,273,669</u>	<u>41,887</u>		<u>1,315,556</u>
<u>8,294,196,928</u>	<u>288,406,672</u>	<u>9,689,038</u>	<u>8,592,292,638</u>
-	10,046,045		10,046,045
125,554,984	4,129,078		129,684,062
1,931,491	63,520		1,995,011
4,963,305	163,226	9,689,038	9,689,038
747,512,638	24,583,160		5,126,531
<u>879,962,418</u>	<u>38,985,029</u>	<u>9,689,038</u>	<u>772,095,798</u>
<u>\$7,414,234,510</u>	<u>\$249,421,643</u>	<u>\$ -</u>	<u>\$7,663,656,153</u>

# POLICE AND FIREMEN'S DISABILITY & PENSION FUND

## COMBINING STATEMENT OF CHANGES IN PLAN NET ASSETS

as of December 31, 1998 and 1997

	Pensions	Postemployment Healthcare	1998 Total
<b>Additions:</b>			
Contributions:			
Members'	\$ 128,673,433	\$	128,673,433
Employers'	182,064,739	79,553,768	261,618,507
State of Ohio - Subsidies	3,483,708		3,483,708
Medical Benefits		5,331,515	5,331,515
Total Contributions	<u>314,221,880</u>	<u>84,885,283</u>	<u>399,107,163</u>
<b>Investment Income:</b>			
Net Appreciation (Depreciation) of Fair Value of Investments	647,935,971	16,756,111	664,692,082
Bond Interest	186,997,853	4,836,135	191,833,988
Dividends	25,414,723	657,275	26,071,998
Real Estate Operating Income, net	36,083,769	933,198	37,016,967
Foreign Securities	5,157,181	133,375	5,290,556
Other	360,201	9,315	369,516
Less Investment Expenses	(12,575,817)	(325,236)	(12,901,053)
Net Investment Income	<u>889,373,881</u>	<u>23,000,173</u>	<u>912,374,054</u>
From Securities Lending Activities:			
Securities Lending Income	36,909,865	954,562	37,864,427
Securities Lending Expense:			
Borrower Rebates	(34,759,283)	(898,944)	(35,658,227)
Management Fees	(825,384)	(21,346)	(846,730)
Total Securities Lending Expense	<u>(35,584,667)</u>	<u>(920,290)</u>	<u>(36,504,957)</u>
Net Income from Securities			
Lending	1,325,198	34,272	1,359,470
Interest on Local Funds Receivable	8,606,233		8,606,233
Other Income	882,132	979,352	1,861,484
TOTAL ADDITIONS	<u>1,214,409,324</u>	<u>108,899,080</u>	<u>1,323,308,404</u>
<b>Deductions:</b>			
Benefits:			
Retirement	263,238,748		263,238,748
Disability	101,409,248		101,409,248
Health Care		83,928,305	83,928,305
Survivor	33,494,497		33,494,497
Contribution Refunds	5,685,196		5,685,196
Discount on Early Payoff of Receivable	8,864,703		8,864,703
Administrative Expenses	8,503,350	2,396,457	10,899,807
Other Expenses	591,938		591,938
TOTAL DEDUCTIONS	<u>421,787,680</u>	<u>86,324,762</u>	<u>508,112,442</u>
Net Increase (Decrease)	792,621,644	22,574,318	815,195,962
Net assets held in trust for pension and postemployment healthcare benefits:			
Balance, Beginning of year	<u>\$7,414,234,510</u>	<u>249,421,643</u>	<u>\$7,663,656,153</u>
Balance, End of year	<u>\$8,206,856,154</u>	<u>\$271,995,961</u>	<u>\$8,478,852,115</u>

See Notes to Combining Financial Statements



Pensions	Postemployment Healthcare	1997 Total
\$ 121,104,430	\$ -	\$ 121,104,430
172,867,701	75,277,682	248,145,383
3,699,963		3,699,963
-	5,251,898	5,251,898
<u>297,672,094</u>	<u>80,529,580</u>	<u>\$ 378,201,674</u>
866,717,626	16,293,681	883,011,307
166,026,589	3,121,182	169,147,771
25,123,582	472,306	25,595,888
43,609,761	819,833	44,429,594
6,693,200	125,827	6,819,027
189,741	3,567	193,308
<u>(12,007,936)</u>	<u>(225,741)</u>	<u>(12,233,677)</u>
1,096,352,563	20,610,655	1,116,963,218
68,493,570	1,309,150	69,802,720
(65,271,354)	(1,247,562)	(66,518,916)
<u>(1,277,668)</u>	<u>(24,421)</u>	<u>(1,302,089)</u>
<u>(66,549,022)</u>	<u>(1,271,983)</u>	<u>(67,821,005)</u>
1,944,548	37,167	1,981,715
8,705,935	-	8,705,935
<u>771,656</u>	<u>979,352</u>	<u>1,751,008</u>
<u>1,405,446,796</u>	<u>102,156,754</u>	<u>1,507,603,550</u>
244,008,943		244,008,943
97,064,363		97,064,363
	76,459,832	76,459,832
32,423,743		32,423,743
5,655,445		5,655,445
5,196,405	3,048,819	8,245,224
<u>381,672</u>		<u>381,672</u>
<u>384,730,571</u>	<u>79,508,651</u>	<u>464,239,222</u>
1,020,716,225	22,648,103	1,043,364,328
<u>6,393,518,285</u>	<u>226,773,540</u>	<u>6,620,291,825</u>
<u>\$7,414,234,510</u>	<u>\$249,421,643</u>	<u>\$7,663,656,153</u>

# NOTES TO FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 1998 and 1997

## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The following are the significant accounting policies followed by the Police and Firemen's Disability and Pension Fund of Ohio (the Fund).

**Basis of Accounting** - The Fund's financial statements have been prepared using the accrual basis of accounting. Revenues are recognized when earned and measurable, 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. Venture capital limited partnership interest is based on values established by valuation committees.

Net appreciation (depreciation) 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 those administrative expenses directly related to the Fund's investment operations and a proportional amount of all other administrative expenses allocated based on the ratio of the Fund's investment staff to total Fund staff.

The Fund has no individual investment that exceeds 5% of net assets available for benefits.

**Federal Income Tax Status** - The Fund 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 and equipment	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.

**Reclassifications** - Some 1997 balances have been reclassified to be consistent with 1998 presentations.

## 2. DESCRIPTION OF THE SYSTEM

**Organization** - The Police and Firemen's Disability and Pension Fund (the Fund) is a cost-sharing multiple-employer public employee retirement system established by Chapter 742 of the Ohio Revised Code (ORC) in 1967 to consolidate the various local police and firemen's relief and pension funds into one statewide plan. The Fund is administered by a nine member Board of Trustees consisting of five active members, one retired member, two ex-officio members (the State Auditor and Attorney General), and a municipal finance officer appointed by the Governor. The Fund administers pension, disability and health care benefits to qualified participants, and survivor, death and health care benefits to qualified spouses, children and dependent parents.

The Fund 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 Police and Firemen's Disability and Pension Fund is a statewide retirement plan established by Chapter 742 of the Ohio Revised code (ORC).

Employer and employee membership data as of January 1, 1998 and 1997, date of the most recent actuarial valuation, follows:



	1998			1997		
	Police	Fire	Total	Police	Fire	Total
<b>Employee Members</b>						
Retirees and beneficiaries						
Currently receiving benefits						
Terminated employees						
entitled to benefits but not						
yet receiving them	<u>11,779</u>	<u>9,302</u>	<u>21,081</u>	<u>11,583</u>	<u>9,311</u>	<u>20,894</u>
Current employees:						
Vested	5,230	4,060	9,290	5,253	4,064	9,317
Nonvested	<u>9,967</u>	<u>7,238</u>	<u>17,205</u>	<u>9,598</u>	<u>6,908</u>	<u>16,506</u>
	<u>15,197</u>	<u>11,298</u>	<u>26,495</u>	<u>14,851</u>	<u>10,972</u>	<u>25,823</u>
<b>Employer Members</b>						
Municipalities	269	214		242	195	
Townships	0	107		0	88	
Villages	<u>347</u>	<u>33</u>		<u>340</u>	<u>33</u>	
	<u>616</u>	<u>354</u>		<u>582</u>	<u>316</u>	

**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 and annual earnings for the three consecutive years during which the total earnings were the greatest or the member's recalculated average annual salary for any three years during which earnings were the greatest. Retirement with reduced benefits is available upon reaching age 48 with 15 years of service credit or 25 years from the date the member became a qualified employee.

In addition to retirement benefits, the Fund 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. 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 fire fighter is entitled to receive the member's full monthly salary, which will be reduced at the member's retirement eligibility date. The payment will be terminated at the spouse's remarriage or the dependent's attainment of age 18 (or 22 if attending school). 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.

The Fund provides comprehensive health care benefits to eligible benefit recipients and their eligible dependents. The medical benefits are not guaranteed and are subject to change at any time upon action of the Board of Trustees. Coverage includes hospitalization, physicians' fees, prescription drugs and reimbursement of Medicare Part B premiums. Most 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, currently 19.5% and 24% of salaries for police and fire fighter employers respectively. The Board of Trustees allocates employer contributions equal to 6.5% of salaries to the Health Care Stabilization Fund within the Pension Reserve Fund.

**Refunds** - Upon termination of employment members may withdraw accumulated contributions to the Fund. Acceptance of a refund cancels the member's rights and benefits in the Fund. Employer contributions to the Fund 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, 1998 and 1997:

Employer  
Member  
Total statutory rate

<u>Police</u>	<u>Fire</u>
(% of active member payroll)	
19.50	24.00
<u>10.00</u>	<u>10.00</u>
<u>29.50</u>	<u>34.00</u>

6.50% of the 19.5% and 24% employer rates is allocated to the Health Care Stabilization Fund.

House Bill No. 721 required that 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 the Fund'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, 1998 the amortization period the under current statutory rates is 56.71 years.

Contributions as a percentage of active member payroll required and made for 1998 and 1997 represented 29.50% for police and 34.00% for fire fighters. Employer and member contributions were approximately \$136,306,123 and \$73,714,145, respectively, for police and \$125,312,384 and \$54,959,288, respectively, for fire fighters for the year ended December 31, 1998. Employer and member contributions were approximately \$129,146,254 and \$69,765,439, respectively, for police and \$118,999,129 and \$51,338,991, respectively, for fire fighters for the year ended December 31, 1997.

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 \$3,483,708 and \$3,699,963 for the year ended December 31, 1998 and 1997, 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 the Fund in 1967. The ORC names this obligation of local governments the "Employers' Accrued Liability". Interest on the outstanding balance is being accrued at a rate of 4.25%, 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, 1998 and 1997, respectively, includes \$1,190,641 and \$1,223,671 due from local governments which had previously underpaid their semiannual payment and from local governments which joined the Fund subsequent to 1967 according to a 20-year payment plan.

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

Year ending December 31,	
1999	18,230,306
2000	8,844,458
2001	8,844,220
2002	8,843,982
2003	8,843,744
Thereafter	<u>276,342,721</u>
Total projected payments	329,949,431
Less interest portion	<u>157,340,208</u>
Balance due at December 31, 1998	<u>\$172,609,223</u>

Effective in 1998, the Fund 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 \$8,864,703 for the year ended December 31, 1998

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

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

**The Policemen's and Firemen's Pension Reserve Funds** are the funds 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 the Fund. In addition, contributions from the State of Ohio, exclusive of death benefit contributions, are recorded in this fund. Annually, investment earnings are transferred to the Pension Reserve Funds and the Expense Fund.



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

Assets available for benefits for the various funds were as follows:

	1998	1997
Members' Contribution Funds	\$ 971,714,332	\$ 930,776,062
Employers' Contribution Funds	3,608,775,783	3,230,495,091
Pension Reserve Funds	3,898,362,000	3,502,385,000
	<u>\$8,478,852,115</u>	<u>\$7,663,656,153</u>

#### 4. CASH AND INVESTMENTS

**Cash Deposits** - The carrying amount of the Fund's cash deposits at December 31, 1998 was \$24,555,932 and the depository balance was \$23,348,381. Of the depository balance, \$1,466,667 was covered by federal depository insurance and \$789,868 was covered by collateral held in the name of the Fund'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 \$21,091,846 was uninsured and uncollateralized and were held in the name of the Fund's pledging financial institution, as required by the Ohio Revised Code (Category 3).

The carrying amount of the Fund's cash deposits at December 31, 1997 was \$27,167,093 and the depository balance was \$3,668,036. Of the depository balance, \$1,312,098 was covered by federal depository insurance and \$2,175,753 was covered by collateral held in the name of the Fund'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 \$25,180,185 was uninsured and uncollateralized and were held in the name of the Fund'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 the Fund. 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 the Fund to categorize its investments to give an indication of the level of collateral risk assumed by the Fund. Category 1 includes investments that are insured or registered or for which the securities are held by the Fund or its agent in the Fund's name. Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in the Fund's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the counterparty, or by its trust department or agent but not in the Fund's name.

All investments subject to categorization met the criteria of Category 1 at December 31, 1998 and 1997 and are held in the name of the fund 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 venture capital, by their nature, are not required to be categorized.

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

Category	1998	1997
Commercial paper	\$ 228,800,710	\$ 219,600,782
U.S. government bonds	406,754,775	240,183,405
Corporate bonds and obligations	733,642,929	975,473,269
Mortgage & asset backed obligations	1,555,718,212	1,373,723,059
Foreign & Canadian bonds	171,496,705	65,644,204
Domestic stocks	2,075,437,145	2,351,078,521
Domestic pooled stocks	1,528,738,532	769,162,764
Foreign securities	763,906,379	626,822,259
Real estate	679,741,601	645,269,687
Mortgage notes receivable	12,700,000	12,543,000
Commercial mortgage funds	109,442,966	114,443,738
Venture capital	33,043,120	29,574,575
	<u>\$8,299,423,074</u>	<u>\$7,423,519,263</u>

**Securities Lending** - The Fund participates in a domestic security lending program administered by a custodial agent whereby certain securities are loaned an independent broker/dealers (borrower) in exchange for collateral equal to no less than 102% of the market value of the loaned securities. The Fund 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. The Fund has not experienced any losses due to credit or market risk on security lending activity since implementation of the program. Securities loaned to brokers/dealers totaled \$651,058,010 and \$758,070,368 at December 31, 1998 and 1997, respectively, and the associated collateral at that date was \$664,428,767 and \$772,095,798. Security lending net income totaled \$1,359,470 and \$1,981,715 for the year ended December 31, 1998 and 1997, respectively.

**Derivatives** - The Fund 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. The Fund 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 the Fund's overall total rate of return.

The Fund also has invested in one commingled EAFE (Europe, Australia, Far East) and two commingled S&P 500 index funds. 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. The Fund's indirect exposure represented less than 1% of the total portfolio market value at year end. The Fund 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

On 1998, the Fund 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, the Fund 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,	
1999	911,000
2000	14,485,000
2001	1,065,000
2002	10,618,000
2003	1,024,000
Thereafter	<u>45,888,413</u>
Total payments	<u>\$73,991,413</u>

## 6. DEFERRED COMPENSATION

Employees of the Fund may elect to participate in the Ohio Public Employees Deferred Compensation Program (the Program), a deferred compensation plan under Internal Revenue Code section 457. Under the Program, employees may defer a portion of their pay until a later date, usually after retirement. The deferred pay and any income earned thereon is not subject to federal and state income taxes until actually received by the employee. As of December 31, 1998, funds from Fund Employ-

ees on deposit with the Program had a market value of \$1,225,556 (\$968,193 at December 31, 1997).

The Program, effective September 1, 1998 amended the *Ohio Public Employees Deferred Compensation Adoption Agreement* to include the following:

"The Eligible Employer acknowledges and agrees that all amounts deferred under the Plan and all insurance contracts or other investments or other property purchased with such amounts shall be held by the Board in Trust on behalf of the Eligible Employer for the exclusive benefit of eligible employees and their beneficiaries. All assets, whenever contributed to the Plan, are assigned to the Trust established by the board."

This amendment was enacted pursuant to the Small Business Act of 1996. Assets in the trust, previously reported as assets owned by the Fund with a corresponding liability, subsequent to September 1, 1998, are no longer owned by the Fund.

The Fund has, therefore, adopted GASB Statement No. 32, *Accounting and Financial Reporting for Internal Revenue Code, Section 457 Deferred Compensation Plans* and has removed these assets from the Fund's financial statements.

## 7. DEFINED BENEFIT PENSION PLAN

The Fund 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 13.55%. The Fund's contributions to PERS for the years ending December 31, 1998, 1997 and 1996 were \$616,336, \$507,890 and \$451,488, respectively, equal to the required contributions for each year.

## 8. OTHER POSTEMPLOYMENT BENEFITS

In addition to the pension benefits described in note 7, PERS provides postretirement health care coverage to age and service retirants with 10 or more years of qualifying Ohio service credit and to primary survivor recipients of such retirants. Health care coverage for disability retirants is available. The health care coverage provided by PERS is considered an Other Postemployment Benefit (OPEB) as described in GASB

Statement No. 12. 4.2% of the employer's contribution to PERS is set aside for the funding of post-retirement health care.

ORC provides the statutory authority requiring public employers to fund postretirement health care through their contributions to PERS

OPEB is financed by pay as you go through employer contributions and investments earnings there on. The contributions allocated to retiree health and Medicare, along with investment income on allocated assets and periodic adjustments in health care provisions are expected to be sufficient to sustain the program indefinitely.

Expenditures for OPEB during 1998 were \$440,596,663. As of December 31, 1998, the unaudited estimated net assets available for future OPEB payments were \$9,447,325,318. The number of benefit recipients eligible for OPEB at December 31, 1998 was 115,579.

#### **9. COMMITMENTS AND CONTINGENCIES**

The Fund is a defendant in a number of lawsuits pertaining to matters which are incidental to performing routine business functions. Fund management is of the opinion that ultimate

settlement of such claims will not result in a material adverse effect on the Fund's financial position as of December 31, 1998.

The Fund is committed to make additional capital contributions of \$40,828,000 towards purchases of additional real estate.

#### **10. STATE OF OHIO DEATH BENEFIT FUND**

Pursuant to Section 742.63 of the Ohio Revised Code, the Board of Trustee of the Police and Firemen's Disability and Pension Fund administers the State of Ohio Death Benefit Fund. This program was established by the State of Ohio to provide monthly benefit payments to surviving family members of Ohio fire fighters 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 the Fund each State fiscal year (July 1-June 30) and are paid monthly by the Fund 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 Police and Firemen's Disability and Pension Fund, and accordingly its assets of \$11,015,172 and \$9,689,038, and the related liability for unpaid benefits are included in the accompanying Combining Statement of Plan Net Assets as of December 31, 1998 and 1997, 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.)

<u>Valuation Year</u>	<u>Valuation Assets</u>	<u>Actuarial Accrued Liabilities (AAL)</u>	<u>Unfunded Actuarial Accrued Liabilities (UAAL)</u>	<u>Ratio of Assets to AAL</u>	<u>Active Member Payroll</u>	<u>UAAL as % of Active Member Payroll</u>
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%

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

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

<u>Year Ended December 31</u>	<u>Actuarially Required Contributions</u>	<u>Percentage Contributed</u>
1993	\$ 144,525,505	100%
1994	153,437,994	100%
1995	159,669,716	100%
1996	168,505,254	100%
1997	176,567,663	100%
1998	185,548,447	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, 1998
Actuarial cost method	Entry Age
Amortization method	Level percent closed
Remaining amortization period	56.71 years
Asset valuation method	4-year smoothed market
Actuarial assumptions:	
Investment rate of return	8.25%
Projected salary increases	5.0-7.0%
Cost-of-living adjustments	3.0%

## 4. YEAR 2000 DISCLOSURES (Y2K)

PFDPF began a comprehensive investigation of its computer systems for potential problems with dates that extend beyond the end of the 20<sup>th</sup> century in July of 1998. This process entailed review of not only internal hardware, software and data but also of the data that is sent to us by outside sources.

Review of the PFDPF member and retiree information systems showed that those systems did store certain dates using a two-digit year format. In order to eliminate any problems this will cause past the year 2000, a major project was scheduled to identify those data elements and rectify the problem. This project began in the fourth quarter of 1997 and was completed in April of 1999.

Review of the software that PFDPF uses to manage investment data also uncovered a few date compliance problems. That system is written by an outside vendor and a remediation project was scheduled to be finished by July of 1999. As of this writing, the software is complete and is scheduled to be installed and tested in June, 1999. Certain other investments software that tracks bonds,

real estate and other investments that have date characteristics already in the 21st century has already been certified compliant.

Beginning in the fourth quarter of 1998, the Fund identified all building systems that had date related issues, such as the Fund's security system, garage access system, fire detection systems and the like. All systems which exhibited date-related problems were replaced or upgraded to Y2K compliant units, and as of this writing this process is complete.

PFDPF has also undertaken the task of identifying external data sources such as our investment advisors, brokers, the Treasurer of State, Department of Taxation, Health Department, and our police and fire employer organizations for certification that they will not experience any year 2000-related problems that may have an adverse affect on the Fund. The Fund has contacted all organizations that provide services to the Fund to determine if any problems will arise from these sources.

A detailed listing of Y2K readiness follows:

### Y2K Readiness

	Assessment	Remediation	Validation	Implementation
<b>Building Systems</b>				
<b>AS/400 System</b>				
Operating System				Oct-98
Hardware				Jun-90
<b>AS/400 Applications</b>				
Accounting	Jul-98	Dec-98	Feb-99	Apr-99
Bonds	Jul-98	Dec-98	Feb-99	Apr-99
Benefit Services	Jul-98	Dec-98	Feb-99	Apr-99
Member Services	Jul-98	Dec-98	Feb-99	Apr-99
Operations Tasks	Jul-98	Dec-98	Mar-99	Apr-99
Systems Tasks	Jul-98	Dec-98	Mar-99	Apr-99
Scheduled Jobs	Jul-98	Dec-98	Mar-99	Apr-99
Manual Jobs	Jul-98	Dec-98	Mar-99	Apr-99
Investment Accounting				Jun-99
<b>Network</b>				
NT Operating System				Jun-95
SQL Server				Jul-99
Server Hardware				Jun-95
Workstation Hardware				Jul-99
<b>PC Applications</b>				
Microsoft Office				Jul-99
Folder Tracking	Jul-99	Jul-99	Jul-99	Jul-99
PayrollEditor	Jul-99	Jul-99	Jul-99	Jul-99
Real Estate Manager	Jul-99	Jul-99	Jul-99	Jul-99
Payroll	Dec-98	Jun-99	Jun-99	Jun-99

## Y2K Summary

In October, 1998 PFDPF upgraded to a Y2K compliant operating system on the IBM AS/400; its hardware had already been certified to be Y2K compliant. Y2K versions of the custom applications on the AS/400 were installed in April, 1999. Total cost for the program modifications was approximately \$316,000. A third-party investment accounting system will be upgraded in June, 1999. The Microsoft Windows NT network operating software is version 4.0 service pack 4, and has been certified Y2K compliant. The network server hardware has been verified as compliant and, since various computer workstations were identified as non-compliant, replacement workstations will be distributed by mid-July, 1999. An upgrade to a Y2K certified version of Microsoft Office will also occur in July, 1999. A new, Y2K-compliant employee payroll package will be installed in June, 1999, and the remaining custom PC applications will be verified in July, 1999.

Two mailings to our vendors have been conducted. As part of the first mailing in September, 1998, 159 letters were mailed out, and 73 were received back with positive Y2K certification. The second mailing consisted of 150 letters mailed out in April 1999, and we have received back 101 certifications.

We believe we have taken every reasonable step to ensure the operation of the Fund and uninterrupted production of retirement checks beyond the year 2000. However, because of the unprecedented nature of the year 2000 issues, the effects and the success of our remediation efforts will not be fully determinable until the year 2000 arrives. Consequently, management cannot assure that PFDPF will be year 2000 ready, that its remediation efforts will be successful in whole or in part, or that parties with whom PFDPF does business will be year 2000 ready.



# SCHEDULE OF ADMINISTRATIVE EXPENSES\*

For The Year Ended December 31, 1998 and 1997

	1998	1997
<b>Personal Services:</b>		
Salaries and Wages	\$ 4,912,260	\$ 3,937,026
Retirement Contributions	616,336	507,889
Employee Benefits	<u>725,109</u>	<u>638,918</u>
	<u>6,253,705</u>	<u>5,083,833</u>
<b>Supplies:</b>		
Office Supplies	162,459	218,813
Printing and Publications	173,030	168,856
Dues and Subscriptions	<u>52,858</u>	<u>32,491</u>
	<u>388,347</u>	<u>420,160</u>
<b>Other Services and Charges:</b>		
Professional Services:		
Auditing	85,029	64,480
Actuarial	214,590	218,970
Medical	554,016	203,762
Legal	206,189	121,960
Investment	10,766,539	10,377,701
Treasurer of State Charges	10,610	11,919
Employee Training	272,191	121,326
Temporary Employees	520,723	47,337
Other Professional Services	1,697,605	1,427,488
Communications:		
Telephone	143,683	125,435
Postage	225,689	221,263
Transportation and Travel	136,209	85,093
Miscellaneous:		
Rent	891,210	994,850
Equipment and Maintenance	783,324	198,838
Retirement Study Council	30,720	23,240
Insurance - Administrative	91,152	79,719
Depreciation Expenses	<u>529,329</u>	<u>651,527</u>
	<u>17,158,808</u>	<u>14,974,908</u>
<b>TOTAL ADMINISTRATIVE EXPENSES</b>	<u><b>\$23,800,860</b></u>	<u><b>\$20,478,901</b></u>

\* Includes investment related administrative expenses

# **SCHEDULE OF INVESTMENT EXPENSES\***

**For the Year Ended December 31, 1998 and 1997**

	<u><b>1998</b></u>	<u><b>1997</b></u>
<b>Investment Manager Fees</b>	<b>\$ 9,817,969</b>	<b>\$ 9,855,858</b>
<b>Custodial Fees</b>	<b>947,625</b>	<b>521,843</b>
<b>Other Professional Services</b>	<b>696,541</b>	<b>424,583</b>
<b>Other Direct Investment Department Expenses</b>	<b>736,848</b>	<b>1,080,868</b>
<b>Allocation of Other Administrative Expenses</b>	<u><b>702,070</b></u>	<u><b>350,525</b></u>
	<u><b>\$12,901,053</b></u>	<u><b>\$12,233,677</b></u>

\*A portion of the non-Investment Department administrative expenses of the Fund is allocated to Investment Expense based on the ratio of the Fund'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

## SIGNIFICANT DEVELOPMENTS IN 1998

With recently revised asset allocation targets in hand, the Investment Committee and Board set out early last year to begin reviewing the structures of each asset class in our portfolio. Their initial focus naturally turned to our largest asset class, domestic equities. Once the Board had approved a new structure, staff worked to implement necessary changes within the portfolio. Also, as mentioned in our 1997 report, the Board adopted several new policies in late 1997 and early 1998 and contracted with outside services to help monitor and safeguard the Fund's assets. Much of our efforts last year were directed toward implementing the processes laid out in these policies and to establish meaningful executive reporting routines. To effectively address these added responsibilities, two very important professional positions were added to the staff. Following are a number of specific issues with which the Fund dealt last year:

- Evaluated all domestic equity managers according to the new Investment Manager Monitoring and Evaluation Policy.
- Terminated the services of all five of the Fund's domestic large cap equity managers.
- Commenced searches for a large cap growth manager, a large cap value manager and a passive S&P 500 and passive EAFE manager. In keeping with the Investment Manager Search Policy, these searches were conducted via an open, advertised RFP process.
- Hired Boston Partners to manage our large cap value portfolio, American Express Asset Management to manage our large cap growth portfolio and State Street Global Advisors to manage our passive S&P 500 and EAFE portfolios.
- Implemented a successful and cost effective transition of our active large cap and passive portfolios.
- Evaluated all separate account real estate managers according to the new Investment Manager Monitoring and Evaluation Policy.
- Terminated one separate account real estate advisor and re-distributed the properties among existing advisors.
- Divested our interest in a residential property fund.
- Adopted a Real Estate Properties Disposition Policy which will expedite sales by granting limited approval authority to staff when sales proposals are in line with their disposition plan at the time of the property's purchase or as approved in the annual Real Estate Investment Management Plan.
- Adopted a Proxy Voting Policy which spells out the criteria used to evaluate and vote on all proxy issues expected during the coming year.
- Reviewed the structure of our international equity portfolio and began evaluations of all international equity managers according to the Investment Manager Monitoring and Evaluation Policy.
- Determined a strategy for our expansion into emerging markets and initiated a manager search according to our Investment Manager Search Policy.
- Hired a Senior Investment Officer to oversee equity investments, both public and private.
- Hired a Compliance Officer to oversee all guideline and compliance issues and to formalize and implement an overall risk management program.
- Worked through another custody transition due to the Treasurer of State's selection of State Street to replace Morgan Stanley Trust Company/Chase Manhattan Bank as the custodian of our international assets.

## ECONOMIC ENVIRONMENT

1998 was another excellent year for the U.S. economy. Real GDP growth was a strong 4.3% and was accelerating at the end of the year, with fourth quarter real GDP growth reaching 6% on an annualized basis. Job growth remained strong resulting in the unemployment rate dropping to an historically low 4.3% by year end. Strong consumer spending was buoyed by heady consumer confidence for most of the year, by real income gains and by the wealth effect attributable to a strong stock market. The inflation rate continued to tumble as the CPI rose at a meager 1.6% rate for the entire year. Strong increases in worker productivity, 2.7% for the year, and intense global competition were the keys to this remarkable continuation of non-inflationary growth.

Although economic growth accelerated in the fourth quarter, during the months of August, September, and October the financial markets began to price a slowdown into their expectations about the economy. Fears that the economic weakness in Eastern Europe and Asia would spill over to the U.S. drove global stock markets lower and the U.S. Treasury market higher. The Federal Reserve Board became very concerned that the financial markets would not provide enough capital to American businesses and that a recession would result. Because the U.S. was the only major country with a strong economy, the Federal Reserve Board became concerned that a U.S. recession could lead to a global economic meltdown. To help turn around this developing liquidity crisis, the Fed reduced short-term interest rates three times between late September and mid November, dropping the federal funds rate from 5.5% to 4.75%. Several other foreign central banks also joined in and cut interest rates. By the end of the year, financial markets had stabilized, and the consensus forecast was for slower economic growth in 1999, but no recession.



## TOTAL FUND

Our investment portfolio did prosper during 1998, but our asset growth wasn't achieved without problems along the way. We experienced fairly steady growth up through mid-year, but suffered a sizable setback in the third quarter when the liquidity crisis caused nearly everything except US Treasuries to tumble in value. As global stock markets recovered in the fourth quarter, we retraced the entire decline of the prior quarter and ended the year with a total market value of \$8.2 billion. Our total portfolio return of 13.8% for the year fell well short of our Policy Benchmark return of 15.6%. This was largely due to the poor relative performance of our active US equity managers. However, the portfolio's three year return of 14.9% beat our policy return for that period, while our five year return of 13.3% matched the five year policy return.

## EQUITIES

On the surface, 1998 was another year of above average equity returns as the S&P 500, spurred on by ideal economic conditions and continued strong merger activity, posted a total return of 28.8%. However, this return was achieved by the extraordinary gains of a relatively small number of large capitalization growth stocks. Of the 500 stocks in the S&P500, the 30 largest growth stocks had an average return of 69% while the other 470 stocks had an average return of 10%. In fact, smaller capitalization stocks, as measured by the Russell 2000 Index, were actually down on the year with a return of -2.6%. Reflecting the narrowness of the market and the inability of active management to add value, our domestic equity composite return of 17.6% trailed far behind our benchmark, the Wilshire 5000, return of 23.5% for the year. This poor comparison brought the three and five year annualized returns of our equity composite to roughly 200 basis points below the Wilshire 5000. As we start the year 1999, the equity market has broadened out to include more stocks, both value and smaller capitalization, in its continuing upward march. We are hopeful that this bodes well for active management this year.

During 1998, the Fund took steps to restructure the large cap segment of its US equity portfolio. Ultimately, this involved the termination of five large cap managers, as well as a search for and the hiring of two new managers. This process has continued into 1999 with an evaluation of all of the Fund's small/mid-cap managers. This review resulted in the Investment Committee recommending to the Board the termination of two managers. We plan to reallocate half of the assets of these two managers to two of our better performing existing managers, and at this time, we have not finalized plans for the other half.

For the second year in a row, international equity markets were marked by a financial crisis in the emerging markets. Although this crisis resulted in all markets suffering sharp corrections, the major developed country markets quickly recovered, and the EAFE Index ended the year with a return of 20%. However, the returns exhibited a large disparity by region as the Europe Index was up 28.5% while our customized Pac Basin Index was up only 3.6%. As a group, our active managers were able to add value, resulting in a 20.6% return for the Fund's non-U.S. equities. This performance increased our annualized return advantage over the EAFE Index to 200 basis points over the past three years. The emerging markets were not as fortunate, as a strong fourth quarter was unable to offset earlier losses which resulted in the IFC Emerging Markets Composite producing a calendar year return of -21.1%. The Fund was not affected to any great extent by the collapse of the emerging markets since we had a very minimal exposure to these markets. However, we do have an asset allocation target of 5% to emerging markets, and during 1999, have begun to move toward this target. After an extensive search process, the Investment Committee recommended two dedicated emerging markets managers to the Board, and we have started funding these managers with a goal of fully funding them over the course of the next year. In addition, we reviewed our developed country manager structure. Based on the Investment Committee's recommendation, the Board decided to do away with our European and Pacific Basin regional mandates and to eliminate the ability of our developed country managers to invest in any emerging markets securities. The proceeds of our Pacific Basin portfolio will be split between our two incumbent active EAFE managers, and our European regional manager will convert our portfolio to an EAFE mandate.

## FIXED INCOME

1998 was a reasonably good year for the bond market as Treasury yields declined approximately one hundred basis points. As a result, the Lehman Aggregate Index posted a solid return of 8.7%. Unfortunately, our fixed income portfolio's return of 7.7% lagged the benchmark as a result of very poor relative results in the third quarter. Most of the decline in Treasury yields occurred in August, September, and early October. The immediate catalyst for this decline in yields was the Russian government's default on its debts. As a result, many investors lost money, and a panic aversion to credit risk swept the bond market. Also, economists predicted that the economic weakness in Russia and Asia would lead to a reduction in U.S. exports and a drop in U.S. economic growth. This would bring lower interest rates and higher prepayment risk for mortgages and asset-backed securities. To avoid credit and prepayment risk, many investors sold corporates, mortgages and asset-backed securities to buy Treasuries. As a result, these non-Treasury sectors had their worst performance in years. Corporates, burdened with the largest supply ever, underperformed similar duration Treasuries by two hundred and twenty basis points. Mortgages underperformed by eighty-six basis points while asset-backed securities underperformed by eighty-three basis points. Because



both the internal and external managers were overweighted in the non-Treasury sectors, both underperformed the Aggregate Index by a significant margin. The irony is that the economy accelerated at the end of the year, posting an annual growth rate of 6% in the 4<sup>th</sup> quarter.

Healthy economic growth should continue in 1999 because the U.S. Federal Reserve and several foreign central banks aggressively cut short-term interest rates in late 1998. Thus, with continued economic growth and the inevitable worries about renewed inflation, interest rates are more likely to rise than fall in 1999, and bond market returns will likely turn in a sub-par 3.5-5.0% performance.

## **REAL ESTATE**

In 1998, the real estate market continued to remain strong across most property types and locations in the United States. Market fundamentals remained solid, with vacancy rates at 15 year lows and mortgage delinquency rates at 30 year lows. Over the last six months of 1998, the capital markets severely restricted the flow of new capital to publicly traded real estate investment trusts and to commercial mortgage backed securities. As a result, private investors such as pension funds and opportunistic funds became the primary source of capital for real estate investments. This resulted in a rising level of capitalization rates and declining property prices in the range of 10% to 15%, particularly for quality, institutional properties. The Fund purchased two properties in 1998 with a total value of approximately \$62 million and sold three properties with a total market value of approximately \$56 million. The Fund also re-classified its headquarters, Town Center, from an investment asset to a Fund asset on January 1, 1999.

The Fund's real estate portfolio generated a gross return for 1998 (lagged by one quarter) of 18.6%. Our three year return was 15.1%, and the five year return was 12.4%. Our portfolio outperformed the NCREIF property index for the one, three and five year periods.

The Fund has constructed a high quality core portfolio which is well diversified both by location and by property type and which produces a high income return. Therefore, the Fund's current approach is to invest primarily in core properties and selectively invest in value added properties that will provide superior risk adjusted returns.

## **VENTURE CAPITAL**

In 1998, our small allocation to venture capital provided a disappointing negative return of -.12% versus its benchmark, the S&P 500 +5%, return of 33.8%. Our venture portfolio also trailed the benchmark for the previous three and five year time periods, but provided strong absolute returns. The Fund continued its policy of investing only in venture capital partnerships of Ohio based managers with which we have an existing relationship. During the year, the Fund made only one new commitment to venture capital.

This year we will undertake a review of our allocation, policy and implementation strategy for alternative assets, including venture capital. We believe this review will result both in an increased allocation and improved results for our venture capital program.

## **1999 DEVELOPMENTS**

As mentioned above, the Board and staff have been quite active both last year and thus far in 1999. As summarized below, our monitoring and evaluation efforts have continued to require a good deal of time and effort, but have not been the only issues occupying our agenda this year.

- Revised the Investment Manager Monitoring and Evaluation Policy to formalize review time frames for certain manager ratings and pending Board approval, to include ratings for "private" investments, such as real estate commingled funds and venture capital partnerships.
- Revised certain definitions within managers' guidelines and clarified guidelines to facilitate a smooth compliance reporting process with Standard & Poor's.
- Completed our emerging markets manager search and hired Scudder-Kemper Investments and Capital International as managers for this mandate. Funding began at the end of March.
- Eliminated our regional strategies in international equity, which resulted in the termination of our Pacific Basin manager and a change to an EAFE mandate for our European manager.
- Evaluated all domestic small/mid cap managers according to the Investment Manager Monitoring and Evaluation Policy, resulting in the termination of two small/mid cap managers.

- Evaluated all venture capital managers according to the Investment Manager Monitoring and Evaluation Policy.
- Evaluated all real estate separate account and commingled fund managers according to the Investment Manager Monitoring and Evaluation Policy.
- Approved investments in two new commercial mortgage funds and made an additional allocation to one of our current funds.
- Hired an Assistant Investment Officer to assist with the oversight of public and private equity.
- Hired an Assistant Investment Officer to bolster the credit review capability of our internal fixed income management team and to take over the cash management function.

## CHALLENGES AHEAD

We have always stated our intention to earn at least an 8.25% return over time, which is our actuarial assumption rate. Given our accelerated funding requirements, we will strive to better that return by exploring new investment ideas and by improving the efficiency of and reducing the costs of our operations. As we look ahead, we intend to tackle a number of issues related to these goals.

- Initiate an asset/liability study focused on allowing the fund to meet its accelerated funding requirements and growing health care costs and to determine if any adjustments should be made to portfolio weightings or to accommodate new asset classes.
- Begin the process of identifying, purchasing and installing a new investment accounting package which includes global investments, compliance monitoring and performance measurement capabilities.
- Continue our 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 the Fund and ensure that appropriate investment strategies are in place.
- Review and purchase a risk management system to provide total Fund risk characteristics, positioning, and reporting for use by the Investment department, Executive Director and Investment Committee.
- Acquire compliance software which will allow us to transfer this monitoring role from outside services to internal staff.
- Implement an effective transition trade to complete the restructuring of our international developed markets equity portfolios.
- Formulate and secure approval of a plan to reallocate and transition the assets of two small/mid cap portfolios.
- Review the current structure of our fixed income portfolio and determine if any changes are warranted. This is likely to include an evaluation of the use of high yield and emerging market debt.
- Evaluate our fixed income managers according to the Investment Manager Monitoring and Evaluation Policy.
- Research methods by which we can expand further into alternative investments with the expectation that our upcoming asset/liability study will call for an increased allocation to this area.
- Restructure the department to form an Operations team which will add personnel and incorporate more cross training to provide us with a greater depth of skills and more flexibility to direct added resources where needed.
- Hire two professionals to assist in the oversight and administration of our real estate portfolio.



## 2. INVESTMENT PORTFOLIO SUMMARY

### DECEMBER 31, 1998

Type	% of Market Value	Market Value
Commercial paper	2.76%	\$228,800,710
U.S. government bonds	4.90%	406,754,775
Corporate bonds and obligations	8.84%	733,642,929
Mortgage & asset backed obligations	18.74%	1,555,718,212
Foreign & Canadian bonds	2.07%	171,496,705
Domestic stocks	25.01%	2,075,437,145
Domestic pooled stocks	18.42%	1,528,738,532
Foreign securities	9.20%	763,906,379
Real Estate	8.19%	679,741,601
Mortgage notes receivable	0.15%	12,700,000
Commercial mortgage funds	1.32%	109,442,966
Venture capital	0.40%	33,043,120
	100.00%	\$8,299,423,074

## TEN LARGEST COMMON STOCKS (BY MARKET VALUE)

	Shares	Market Value
MCI Worldcom Inc	495,885	35,579,749
Ameritech Corp., New	396,100	25,102,838
Compaq Computer	567,446	23,832,732
AT&T Corp.	308,600	23,376,450
Mobil Corp.	263,000	22,913,875
Proctor & Gamble	221,900	20,262,133
Home Depot, Inc.	317,349	19,417,633
Bristol Myers Squibb, Co.	141,340	18,912,988
Waste Management Inc., Del, New	393,415	18,342,974
Warner Lambert Co.	228,501	17,180,305

## TEN LARGEST BONDS AND OBLIGATIONS (BY MARKET VALUE)

	Par Value	Market Value
US Treasury 8.875% 8/15/17	56,855,000	80,056,730
Sun Life Capital Trust I	65,500,000	70,195,040
MIC Financing Trust I 144A	57,230,000	59,035,034
Nationwide CSN Trust	50,000,000	58,405,000
Mid States TR II A-4 04/01/03	51,907,500	55,914,136
Scgen Real Estate Co. L.L.C.	60,000,000	55,807,800
US Treasury 8.0% 11/15/21	40,910,000	54,806,636
Strips 8/15/10	77,800,000	42,715,468
BNP U.S. Funding L.L.C.	40,000,000	38,478,000
Lehman Brothers Hldgs. (MTN)	33,025,000	33,850,625

## TEN LARGEST REAL ESTATE HOLDINGS (BY MARKET VALUE)

	Market Value
Park Central	73,200,000
Indianapolis Office Building	54,000,000
Belmont/Carlton Apartments	46,500,000
St. Andrews Apts	43,393,000
Vista Ridge Village	42,006,000
Aurora Corporate Plaza	30,700,000
Bernards 78	29,100,000
Commodore/Pencader	28,081,000
Harbour Town Apts.	27,382,000
Sunrise Plaza	24,600,000



# 3. SCHEDULE OF INVESTMENT RESULTS

For Year ended December 31, 1998

	Annualized Rates of Return		
	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>
<b>U.S. Equity</b>			
PFDPF	17.58%	22.96%	19.84%
Wilshire 5000	23.45%	25.24%	21.79%
<b>Int'l Equity</b>			
PFDPF	20.55%	12.11%	NA
MSCI EAFE	19.97%	8.99%	NA
<b>Fixed Income</b>			
PFDPF	7.67%	7.01%	7.00%
Lehman Aggregate	8.67%	7.29%	7.27%
<b>Real Estate (one quarter in arrears)</b>			
PFDPF	18.62%	15.11%	12.42%
Wilshire Real Estate Fund	13.13%	12.25%	8.39%
NCREIF	17.30%	12.50%	9.90%
<b>Venture Capital</b>			
PFDPF	-0.12%	21.97%	25.28%
S&P 500 + 5%	33.76%	33.29%	29.08%
<b>Total Portfolio</b>			
PFDPF	13.75%	14.91%	13.27%
* Policy Index	15.64%	14.71%	13.27%

\* Policy Benchmark - 41% of Wilshire 5000, 35% of Lehman Aggregate, 10% of MSCI EAFE Index, 8% of Wilshire Real Estate Fund, 5% IFC Emerging Markets, 1% S&P 500 + 5%

## 4. INVESTMENT CONSULTANTS AND MONEY MANAGERS

### Investment Consultants

Wilshire Associates  
The Townsend Group

### Investment Manager - Fixed Income

Brinson Partners, Inc.

### Investment Managers - Equity

American Express Asset Management  
Boston Partners Asset Management, L.P.  
Capital Guardian Trust Company  
Fleet Financial Advisors, Inc.  
Gelfand Partners Asset Management  
Invesco Trust Company  
Lombard Odier International Portfolio  
Management, Ltd.  
Nicholas-Applegate Capital Management  
Scudder, Stevens & Clark, Inc.  
Smith Barney Capital Management  
Society Asset Management  
State Street Global Advisors

### Investment Managers - Real Estate

AEW Capital Management  
Boston Financial  
Conning Asset Management  
DLJ Real Estate Capital Partners, Inc.  
Lend Lease Real Estate Investments, Inc.  
Lowe Enterprises  
The RREEF Funds  
TA Associates Realty  
Westbrook Partners, LLC  
Westmark Realty Advisors  
Yarmouth Capital Partners

### Investment Managers - Venture Capital

Alpha Capital Partners  
Blue Chip Venture Partners  
Brantley Venture Partners  
Chemicals & Materials Enterprise  
Miami Valley Economic Development, Ltd.  
Morgenthaler Ventures  
North Coast Fund, L.P.  
Northwest Ohio Venture Fund  
Primus Venture Partners



# 5. SCHEDULE OF BROKERS' FEES

## TOTAL-1998 TRADING

For the Year Ending December 31, 1998

Broker Name	Fees Paid	Units Traded	Average Cost Per Unit
Deutsche Morgan Grenfell	\$1,520,686	75,760,761	\$0.020
Merrill Lynch & Co.	\$281,603	6,392,601	\$0.044
Paine Webber	\$177,768	3,273,375	\$0.054
Prudential Securities	\$134,726	2,801,547	\$0.048
Morgan Stanley	\$129,614	2,537,311	\$0.051
Bear Stearns	\$126,065	4,198,553	\$0.030
Goldman Sachs & Co.	\$124,868	3,074,586	\$0.041
Donaldson Lufkin & Jenrette	\$124,864	2,565,081	\$0.049
Capital Institutional Services	\$114,681	2,173,450	\$0.053
Merrill Lynch	\$96,597	9,458,634	\$0.010
Salomon Smith Barney	\$86,725	2,575,475	\$0.034
Roney & Co.	\$82,789	1,536,277	\$0.054
Instinet	\$79,802	1,668,416	\$0.048
Mcdonald & Co. Securities	\$74,638	1,801,915	\$0.041
Davy & Co.	\$74,469	1,026,252	\$0.073
Lehman Brothers, Inc.	\$70,108	1,531,196	\$0.046
Instinet	\$62,967	1,329,998	\$0.047
Everen Securities	\$58,918	1,368,217	\$0.043
CSFB	\$57,961	4,204,265	\$0.014
Sanford C. Bernstein	\$57,683	1,107,999	\$0.052
D.E. Shaw	\$52,012	1,733,726	\$0.030
Sg Cowen Securities Corp.	\$51,417	1,670,179	\$0.031
ABN Amro	\$51,017	4,750,385	\$0.011
Weiss Peck	\$49,540	1,203,450	\$0.041
Investment Technology Group	\$47,019	1,521,132	\$0.031
SBC Warburg	\$46,716	4,974,999	\$0.009
Robt. Baird	\$46,176	987,800	\$0.047
Jones & Associates	\$44,877	988,699	\$0.045
Cs First Boston Corp.	\$44,481	1,377,583	\$0.032
Henderson & Crosthwaite	\$43,398	426,950	\$0.102
Jefferies & Co.	\$42,646	1,954,551	\$0.022
J. P. Morgan	\$39,840	855,365	\$0.047
HSBC Sec Inc	\$38,547	2,102,912	\$0.018
Bank Bellvue	\$33,134	9,435	\$3.512
Cantor Fitzgerald & Co.	\$32,857	2,574,165	\$0.013
Legg Mason	\$31,643	633,179	\$0.050
Kleinwort Benson	\$31,491	537,293	\$0.059
Montgomery Securities	\$31,476	1,179,978	\$0.027
Lewco	\$30,693	1,126,490	\$0.027
Raymond James & Associates	\$29,292	1,031,696	\$0.028
Morgan Stanley Dean Witt	\$28,842	4,333,344	\$0.007
Alex Brown	\$28,705	1,080,196	\$0.027
Lynch Jones	\$28,595	482,940	\$0.059
Weeden	\$26,450	517,890	\$0.051
Ernst & Company	\$25,834	847,800	\$0.030
Boston Institutional Services	\$25,505	510,100	\$0.050
Bridge Co.	\$25,346	506,600	\$0.050
Hoare Govett	\$25,223	537,350	\$0.047
Standard & Poors	\$24,968	491,100	\$0.051
James Capel	\$23,378	382,050	\$0.061
Wheat First	\$21,888	772,005	\$0.028
BZW Securities	\$21,840	209,985	\$0.104
Natwest Securities	\$20,871	304,550	\$0.069
Interstate-Johnson Lane	\$20,675	355,425	\$0.058
Hsbc James Capel	\$20,204	323,200	\$0.063
Brokers' fees less than \$20,000 each	<u>\$911,131</u>	<u>42,924,721</u>	<u>\$0.021</u>
Total Fees and Commissions	<u>\$5,635,259</u>	<u>216,605,132</u>	<u>\$0.026</u>



# 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 Police and Firemen's Disability and Pension Fund of Ohio (the Fund). This Statement is intended to provide general principles for establishing the goals of the Fund, 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 the Fund 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 the Fund 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 the funds solely in the interest of the participants and beneficiaries." These duties shall be carried out "with care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and like aims." All aspects of this statement should be interpreted in a manner consistent with the Fund'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 the Fund (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 the Fund'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 quarterly basis.

### B. Staff Responsibilities

- Manage the Fund assets under its care, custody and/or control in accordance with the Investment Policy Statement objects and guidelines set forth herein.
- Monitor both internally & externally managed assets to insure compliance with the 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 objections 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.

### C. 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

### D. Investment Managers' Responsibilities

- Manage the Fund 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.
- 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 the Fund 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 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 the Fund.

The procedure for determining the allocation will consider the relevant characteristics of the liabilities and potential assets of the Fund. 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 the Fund 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 Range (%)	Target Allocation (%)
Domestic Equity +/-4	41
International Equity +/-2	10
Domestic Fixed Income +/-4	35
Real Estate +/-2	8
Emerging Markets -	5
Alternative Investments -	1
Cash Equivalents -	0
Total	100%

The study has shown that this asset mix offers the best combination of 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

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 September 1993. 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).

The Fund shall also 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.

The Fund shall attempt to achieve these return goals without unnecessary risk to principal. The risk/return characteristics of the Fund 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 all 9 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, the Fund will invest assets through the use of Qualified Pension Asset 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 that will 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 Board. The general investment manager search procedures shall include, but not be limited to, the following:

- Establish specific criteria
- Screen appropriate universes
- Develop list of initial candidates
- Conduct quality control
- Develop list of semi-finalists



- Select finalists for interviews
- Select new managers

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. Large Capitalization Specialist Managers

The Board of Trustees has determined that diversification of the equity asset base into large capitalized companies (over \$5 billion) will offer the opportunity for enhanced returns, while lessening overall risk due to the broader diversification benefits of additional asset classes.

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 stocks in the S&P 500 Index, S&P 400 Mid Cap Index, listed on the New York or American Stock Exchanges or stocks issued or guaranteed by a corporation created or existing under the laws of the United States or any state, district, or territory thereof, subjects to the provisions of Sec. 742.11 regarding over-the-counter stocks.
- The main focus of investing will be on companies with a market capitalization in excess of \$5 billion.
- All investments in non-dividend paying stocks shall be brought to the attention of the Director of Investments.
- No single holding shall account for more than 5% of the entire portfolio at market, or 5% of the outstanding common stock of any one corporation.
- Specialist manager shall be subject to all other investment provisions listed under Sec. 742.11 of the Amended Substitute Senate Bill Number 43 that are not specifically mentioned above.
- Trading recommendations shall be submitted by the various investment managers to the Chief Investment Officer and staff who shall be responsible for all trading activity of the portfolio. In no event shall a manager/advisor execute a trade involving a total loss in excess of five hundred thousand dollars without notification to the Board of Trustees.
- 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.

### B. Small/Mid Capitalization Specialist Managers

The Board of Trustees has determined that diversification of the equity asset base into small capitalized (under \$1.0 billion) and mid-range capitalized (\$1.0 billion-\$5.0 billion) companies will offer the opportunity for enhanced returns, while lessening overall risk due to the broader diversification benefits of additional asset classes. 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 capitalization in the range of \$100 million to \$5 billion.
  - Trading shall be left to the discretion of the investment manager.

#### *Investment Objectives*

- Total return of the managed large cap portfolio should exceed the return of the S&P 500 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.

#### 'Growth' Manager A

- Total return of the portfolio should exceed the return of a blended index consisting of 80% Russell 2000 Index and 20% S&P 400 Mid Cap Index over a three year period on an annualized basis.
- Total return should rank above median in a universe of small cap, growth managers over a three year period on an annualized basis.

#### 'Growth' Manager B

- Total return of the portfolio should exceed the return of a blended index consisting of 50% Russell 2000 Index and 50% S&P 400 Mid Cap Index over a three year period on an annualized basis.
- Total return should rank above median in a universe of small cap, growth managers over a three year period on an annualized basis.

#### 'Value' Manager A

- Total return of the portfolio should exceed the return of a blended index consisting of 80% Russell 2000 Index and 20% S&P 400 Mid Cap Index over a three year period on an annualized basis.
- Total return should rank above median in a universe of small cap, growth managers over a three year period on an annualized basis.

#### 'Value' Manager B

- Total return of the portfolio should exceed the return of a blended index consisting of 25% Russell 2000 Index and 75% S&P 400 Mid Cap Index over a three year period on an annualized basis.
- Total return should rank above median in a universe of small cap, growth managers over a three year period on an annualized basis.



### **C. International**

The Fund 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, active and regional. 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 allocation. This is an index fund portfolio intended to provide diversification to the Fund's U.S. investments through holdings in non-U.S. equities and is to be constructed so as to track the MSCI-EAFE Index. Non-U.S. equity securities in EAFE countries are authorized. The portfolio will be fully-invested at all times and cash at no time should exceed 2% of the total market value of the account. The holding of cash is permitted to facilitate transactions and is not to be used as a market timing instrument. Lastly, currency hedging is not permitted in the account. The manager will have the MSCI-EAFE Index as a benchmark.

#### *Active International Equity Investment*

The active component also has a target allocation of one-third of the International allocation and will be equally divided among two managers. These will be discretionary portfolios intended to provide diversification to the Fund's U.S. investments as well as the Fund'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.

One manager will undertake a "core" investment, limiting the manager to investing between 0-15% of their portfolio in emerging markets with the remainder invested in the EAFE markets. Emerging markets represent those markets not contained in the MSCI-World Index. This manager is meant to be one which invests mainly in EAFE, but is allowed to opportunistically invest in emerging markets. Given the "core" mandate, the portfolio should be broadly diversified. Since the focus of the manager's portfolio is EAFE, the manager will be given an EAFE benchmark.

The second manager will be given a "core plus" mandate enabling this manager to invest 10-30% of the portfolio in emerging markets, with the remainder in the EAFE markets. This manager is meant to invest more systematically in emerging markets, maintaining a target allocation of 20% of the portfolio to these markets. Accordingly, this manager will be given a benchmark consisting of 80% MSCI-EAFE/20% MSCI-Emerging Markets Free.

#### *Regional Component*

The regional allocation will comprise the final one-third of the International allocation and will be split equally between Europe including the U.K. and Pacific Basin including Japan. These discretionary portfolios will serve to provide diversification to the Fund's U.S. investments as well as the passive EAFE Index manager and the two active international equity managers. The Europe manager will be measured against the MSCI-Europe Index; the Pacific Basin manager will be measured against a customized Pacific Basin Index.

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

The geographic and economic sector diversification, together with the number of issues held, 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.

### **D. Fixed Income**

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

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 - 25% from that of the benchmark.

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

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

Derivatives whose underlying asset is allowed by statute may be used in the management of the portfolio.



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

### **E. Real Estate**

The Fund has adopted Strategic and Investment Plans that provide for the completion of the Fund's allocation to real estate.

The Fund's policy is a "managed opportunistic" investment strategy. This strategy has been adopted to take advantage of recovering real estate markets and the attractive potential returns available from real estate investments in such markets. Other investment objectives of the Fund include providing an inflation hedge and returns that negatively correlate with stock and bond returns. The Fund is primarily interested in investing in core properties (i.e., operating and substantially leased office, retail, industrial and apartment properties located in major metropolitan markets or key distribution centers exhibiting strong and diversified economic bases). The Fund will, however, consider "opportunistic" investments that provide greater lease-up risk (e.g., 65% occupancy), so long as the investment otherwise possesses core attributes and satisfactory protections (e.g., a purchase price at a significant discount to replacement costs). The Fund will also consider investment opportunities from markets that have experienced economic downturns and are currently exhibiting signs of market recovery and good potential appreciation and income returns.

The Fund will consider investments in specialized investments (i.e., developmental properties, investments in land and other non-traditional property type investments). Specialized investments typically exhibit more risk than core investments and may require specialized acquisition or asset management skills to mitigate the high risk associated with the investments.

The minimal acceptable projected or benchmark return for new core and specialized investments are real rates of return (i.e., inflation adjusted) net of fees of five percent (5%) and six percent (6%), respectively, or ten percent (10%) and eleven percent (11%) on a nominal basis before fees. Core investments are to comprise a minimum of eighty percent (80%) of the Fund's portfolio and specialized investments are to comprise a maximum of twenty percent (20%) of the portfolio.

The Fund's preferred investment vehicle is a separate account because it affords the Fund the most control over its investments. Commingled fund investments will be made to a lesser degree to provide diversification and interests in larger property investments.

The Fund employs a number of risk management strategies to minimize portfolio return volatility. These strategies include diversifying the real estate portfolio by advisor, property type, location and economy. The Fund further monitors closely the performance of its advisors in commingled fund investments. Also, leverage will be utilized only if acceptable debt service coverage, loan to value and other protections can be provided.

The maximum debt to equity ratio for the portfolio is 1:1 and 2:1 for an individual asset.

### **F. Commercial Mortgages**

The Board of Trustees has determined that inclusions of Commercial Mortgage Investments secured by real estate, will enhance the risk/return characteristics of the fund. Therefore, the allocation to this asset class shall be targeted at 2% of the fund's total investable assets.

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.

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 the Fund's "Commercial Mortgage Strategic and Investment Plan" are incorporated herein by reference.

### **G. Venture Capital Investments**

The venture capital class of investments is designed to provide an attractive risk adjusted rate of return to benefit the Fund. By its very nature, it possesses a long term investment horizon, illiquidity and a high degree of risk.

For these reasons, this asset class is limited to 1% of the overall fund and expected returns must exceed those of other asset classes. The Fund seeks a target return of 10% in excess of inflation over the long term.

To assist in diversifying the risks of this asset class, the Fund shall invest only in eligible venture capital partnerships or funds and shall avoid individual direct company investments. The Ohio Revised Code

742.11(d) (5) states eligibility as, "Venture Capital firms having an office within this state, provided that, as a condition of the Board making an investment in a venture capital firm, the firm must agree to use its best efforts to make investments, in an aggregate amount at least equal to the investment to be made by the Board in that venture capital firm, in small businesses having their principal offices within this state and having either more than one-half of their assets within this state or more than one-half of their employees employed within this state."

### **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

The Fund'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 Executive Director, the Chief Operating Officer, the Chief Investment Officer or outside money managers.

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

## 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 periodically by the agent to the Board detailing investment instruments utilized and the appropriate breakdown of revenues.

## IX. INVESTMENT MONITORING AND EVALUATION POLICY

The purpose of the PFDPF 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 PFDPF's investment managers that may materially impact the relationship and investment objectives of the Board.

PFDPF 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 PFDPF 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 PFDPF, 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 PFDPF'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 that 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 the Fund 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 the Fund'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 category 4, 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 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 PFDPF'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 and approved by the Board 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 PFDPF's current investment manager relationships, the Board will review the issues and may re-assign the manager to another category.

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.

## 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 70<sup>th</sup> 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 the Fund'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 PFDPF 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 PFDPF, 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 PFDPF'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 the Fund.
  - 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



June 18, 1999

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

Members of the Board:

This is our actuarial certification letter with respect to the January 1, 1998 actuarial valuation report of the Ohio Police and Fire Fund ("Fund"). Certain information in the 1998 report and prior reports has been used to prepare Schedules in the 1998 Comprehensive Annual Financial Report. Specifically:

1. Actuarial Section – Schedule 2: is essentially Table 4 from the 1998 actuarial report.
2. Actuarial Section – Schedule 3: number of actives, average salary, salary increase trend information was taken from 1998 and prior actuarial reports.
3. Actuarial Section – Schedule 4: information for 1995 and after was taken from the 1995 and later 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 accrual 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. The report also 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 6.5% in 1998 to 9.0% in 2007 and member premiums increase to 8% of total health care costs by 2007.

The 1998 valuation develops an amortization period of 56.71 years and shows that the Health Care Stabilization Fund is expected to be maintained through the year 2027. The 56.71 compares to 43.49 years developed in the 1997 actuarial valuation. The increase in period is due primarily to the adoption of new disability, mortality and termination assumptions based on the results of the most recent Quinquennial Study.

**Watson Wyatt & Company**

Suite 1400  
1801 East Ninth Street  
Cleveland, OH 44114-3149

Telephone 216 696 6250  
Fax 216 687 0675



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 1998 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 next 30 years, 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 have been 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 1998 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. The 1998 assumptions reflect changes in rates of mortality, disability, and termination, resulting from the 1992-1996 Quinquennial Study. 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.





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*

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

*Peter N. Dorsey*

Peter N. Dorsey  
Associate - Society of Actuaries

WED/PND:cu

H:\OHP&F\DB\GENL\VAL\9BOT618.DOC

## 2. SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

### A. INTEREST

A rate of 8 1/4% 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. The Fund 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 firemen's fund as of April 1, 1966. Each employer with an existing liability is presently making payments at the rate of 5% of the original liability (adjusted for any excess payments) pursuant to the schedule set forth in Section 742.30 of the Ohio Revised Code.

## **I. VALUATION ASSETS**

Valuation assets equal the net cost (book) value of all Fund 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

1989 TO 1998

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	
1989	520	288	12,993	9,374	30,853	31,060	5.0%	5.6%	692.0
1990	526	292	13,088	9,698	32,351	31,863	3.5%	2.6%	732.4
1991	533	297	13,273	9,801	33,910	33,467	4.8%	5.0%	778.1
1992	533	297	13,325	9,996	35,305	35,266	4.1%	5.4%	823.0
1993	545	288	13,540	10,149	36,783	36,783	4.2%	4.3%	871.3
1994	552	293	13,851	10,340	38,017	38,338	3.4%	4.2%	923.0
1995	559	299	14,072	10,511	39,951	40,143	5.1%	4.7%	984.1
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

### 4. RETIRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

1989 to 1998

Year at Jan. 1	Police		Fire		Number at Year End	
	Additions	Removals	Additions	Removals	Police	Fire
1989	587	360	507	292	23691	18740
1990	579	304	413	240	23966	18955
1991	675	373	466	289	24268	19128
1992	813	397	566	362	24684	19305
1993	671	342	504	320	25013	19509
1994	665	332	517	304	25346	19693
1995	677	379	464	301	25644	19906
1996	821	391	580	366	26074	20069
1997	760	400	666	358	26434	20283
1998	610	418	431	444	26976	20600

## 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 present assets (except in rare circum-

stances). 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 the Fund 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)
<b>Police</b> 1997	\$498,283	\$1,964,911	\$1,520,487	\$3,065,410	100%	100%	40%
<b>Fire</b> 1997	\$380,192	\$1,537,474	\$1,123,208	\$2,488,704	100%	100%	51%
<b>Police</b> 1998	\$524,911	\$2,214,921	\$1,634,939	\$3,431,556	100%	100%	42%
<b>Fire</b> 1998	\$405,865	\$1,683,441	\$1,233,600	\$2,799,863	100%	100%	58%



## 6. PLAN SUMMARY

### PURPOSE

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

### ADMINISTRATION

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

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

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

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

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

### MEMBERSHIP

Membership in the Fund is mandatory under Ohio law for all full-time police officers employed by Ohio municipalities. Full-time fire fighters employed by townships, municipalities, township joint fire districts or other political subdivisions must become members of the Fund if satisfactory completion of a fire fighter training course approved under Section 3303.07 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 fire fighters pay 24% of salary. Members contribute 10% of salary.

### BENEFITS

#### A. Service Retirement

Upon attaining a qualifying age with sufficient service credit, a member of the Fund 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. Average annual salary means one-third of the total salary during the three years of highest earnings.

#### 2. Age Commuted

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

(b) Benefit: The same formula applies as for the normal service pension.

#### 3. Age/Service Commuted

(a) Eligibility: Age 48 and 15 years of service.

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

### 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.

#### 1. Permanent and Total Disability (On-Duty)

(a) Eligibility: No age or service requirement.

(b) Benefit: An annual pension equal to 72% of the average salary.

#### 2. Partial disability (On-Duty)

(a) Eligibility: No age or service requirement.

(b) Benefit: An annual pension fixed by the Board of Trustees to be a certain percent of the average annual salary up to 60%. If the member has 25 or more years of service the annual disability pension is equal to the accrued normal service pension.

#### 3. Ordinary 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%. 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.

### D. Flat Survivor Benefits

1. Eligibility: Upon death of any member of the Fund, active or retired.

#### 2. Benefit:

(a) Surviving Spouse's Benefit—An annual amount set by law.

(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.

(c) Dependent Parents—If there be 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.

### E. Lump Sum Death Benefit

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

### F. Annuities

Effective February 28, 1980 for those retiring on either service pensions or disability benefits, optional annuity plans could be chosen. Members could elect actuarially reduced benefits under life annuity certain and continuous or joint and survivor annuity plans.

Effective for one year beginning September 26, 1984, any member who retired before February 28, 1980 could cancel his single life annuity plan and elect a joint and survivor annuity plan continuing a portion of his reduced benefit to his surviving spouse as survivor annuitant.

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

#### 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 fiction 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 designated beneficiary.

#### 4. Life Annuity Certain and Continuous

The minimum guarantee is 5 years and the maximum is 20 years.

### 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 the Fund. 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, the Fund will pay the premium for supplemental Medicare (Part B).

### 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 contingent annual increases equal to the increase in the Consumer Price Index, to a maximum of a 3% increase 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 25, 1986 or their surviving beneficiaries under optional plans, are entitled to contingent cost-of-living increases based on changes in the Consumer Price Index. The annual increase is paid on July 1st of each year whenever the index plus unused prior net accumulations equal or exceed 3% and the member's annual single life annuity equivalent is less than a certain amount. The qualifying amount was \$22,500 per year in 1997. The "Cap" increases by \$500 per 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 the Fund at the same rate as other police officer or fire fighters. 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

<u>Year</u>	<u>Member Contributions and Purchases</u>	<u>Employer Contributions</u>	<u>Employer Contributions as a percentage of Covered Payroll</u>	<u>Investment and Securities Lending Income*</u>	<u>Other Revenues</u>	<u>Total</u>
1992	\$ 91,957,848	\$189,566,606	20.6%	\$ 403,209,178	\$24,878,447	\$ 709,612,079
1993	97,158,960	200,703,066	20.7%	422,969,125	26,449,866	747,281,017
1994	103,553,011	213,918,612	20.7%	254,446,930	38,390,646	610,309,199
1995	109,000,755	223,206,380	20.5%	405,458,383	19,058,843	756,724,361
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

\* 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

<u>Year</u>	<u>Benefit Payments</u>	<u>Administrative Expenses**</u>	<u>Refund of Employee Contributions</u>	<u>Other Expenses</u>	<u>Total</u>
1992	\$328,181,618	\$ 8,475,243	\$3,723,998	\$ 1,088,276	\$341,469,135
1993	344,553,642	9,063,687	5,007,473	53,514,759	412,139,561
1994	365,210,529	10,442,185	3,831,328	12,386,397	391,870,439
1995	395,058,132	14,066,160	5,553,638	559,422	415,237,352
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	9,456,641	508,112,442

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

# 3. BENEFIT EXPENSES BY TYPE

<u>Year</u>	<u>Retirement</u>	<u>Disability</u>	<u>Survivor</u>	<u>Health Care</u>	<u>Total Benefits</u>
1992	\$163,441,985	\$ 69,277,993	\$28,042,134	\$67,419,506	\$328,181,618
1993	177,838,542	74,969,707	28,609,991	63,135,402	344,553,642
1994	191,306,643	80,672,276	29,533,073	63,698,537	365,210,529
1995	207,355,087	86,763,675	30,768,653	70,170,717	395,058,132
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

## 4. RETIRED MEMBERSHIP BY TYPE OF BENEFITS

<u>Year</u>	<u>Service</u>		<u>Disability</u>		<u>Survivors</u>		<u>Combined</u>
	<u>Police</u>	<u>Firemen</u>	<u>Police</u>	<u>Firemen</u>	<u>Police</u>	<u>Firemen</u>	<u>Total</u> <u>Beneficiaries</u>
1992	4,606	4,367	2,320	1,641	2,743	2,199	17,876
1993	4,762	4,484	2,430	1,682	2,756	2,203	18,317
1994	4,928	4,561	2,523	1,726	2,788	2,223	18,749
1995	5,174	4,674	2,630	1,784	2,847	2,257	19,366
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

## 5. AVERAGE MONTHLY BENEFIT PAYMENTS

FOR MEMBERS PLACED ON RETIREMENT ROLLS

### SERVICE RETIREMENT

<u>Year</u>	<u>Normal</u>	<u>Service</u> <u>Commuted</u>	<u>Age</u> <u>Commuted</u>	<u>Age/</u> <u>Service</u>
1992	\$2,195	\$570	\$ 0	\$2,281
1993	2,379	0	433	0
1994	2,386	508	0	1,610
1995	2,447	664	0	627
1996	2,508	614	0	1,314
1997	2,624	564	1,311	0
1998	2,780	835	0	2,091

### DISABILITY RETIREMENT

<u>Year</u>	<u>Permanent</u> <u>and Total</u>	<u>P&amp;T</u> <u>Presumptive</u>	<u>Partial</u>	<u>Partial</u> <u>Presumptive</u>	<u>Off</u> <u>Duty</u>
1992	\$2,277	\$2,314	\$1,830	\$1,728	\$1,267
1993	2,318	2,363	1,776	1,848	1,009
1994	2,228	2,149	1,814	2,020	1,258
1995	1,929	2,589	1,830	2,043	1,534
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



## 6. NUMBER OF EMPLOYER UNITS

Calendar Year	Municipalities		Townships		Villages	
	Police	Fire	Police	Fire	Police	Fire
1987	238	182	0	70	283	23
1988	239	183	0	71	284	24
1989	239	186	0	78	281	24
1990	238	187	0	80	288	25
1991	239	187	0	86	294	24
1992	239	187	0	86	294	24
1993	242	187	0	75	303	26
1994	243	189	0	77	309	27
1995	244	193	0	78	315	28
1996	242	195	0	85	332	30
1997	242	195	0	88	340	33
1998	269	214	0	107	347	33

## 7. DEATH BENEFIT FUND

uant to Section 742.63 of the Ohio Revised Code, the Board of Trustees of the Police and Firemen's Disability and Pension Fund administers the State of Ohio Death Benefit Fund (DBF). This program was established by the State of Ohio to provide monthly benefit payments to surviving family members of Ohio fire fighters 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 the Fund each State fiscal year (July 1-June 30) and are paid monthly by the Fund to eligible recipients. The unused balance at June 30 is returned to the State. The assets and liabilities of the DBF are included in the Fund's combining statement of plan net assets as of December 31, 1998 as an agency fund. The following is a schedule of DBF financial activity for the State fiscal year ending June 30, 1998:

Balance January 1, 1998	\$9,689,038
Less: Survivor Benefits Paid January 1 to June 30, 1998	<u>(7,590,837)</u>
Balance returned to State of Ohio	<u>\$ 2,098,201</u>
State Funding Received July 1998	\$19,300,000
Less: Survivor Benefits Paid July 1 - December 31, 1998	<u>(8,284,828)</u>
Balance December 31, 1998	<u>\$11,015,172</u>



***(THIS PAGE LEFT BLANK INTENTIONALLY)***