



## **Comprehensive Annual Financial Report**

*A Component Unit of the State of Ohio*  
**Year Ending December 31, 2002**

**Richard A. Curtis, Executive Director**

6161 Busch Boulevard, Suite 119  
Columbus, Ohio 43229-2553

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# Introductory Section

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

## Ohio State Highway Patrol Retirement System

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended  
December 31, 2001

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.



*William Patrick Pate*  
President

*Jeffrey L. Essler*  
Executive Director

# Highway Patrol Retirement System Board of Trustees



Major J.P. Allen  
*Elected Member/Chair*



Trooper Dennis Gorski  
*Elected Member/Vice Chair*



R. Dean Huffman  
*Elected Retired Member*



Lieutenant John Allard  
*Elected Member*



Lieutenant Cory Davies  
*Elected Member*



Colonel Kenneth Morckel  
*Statutory Member*



O'Neal Saunders  
*Statutory Member  
representing Jim Petro,  
Auditor of State*



Ken Brunke, Jr.  
Callan Associates  
*Investment Consultant*

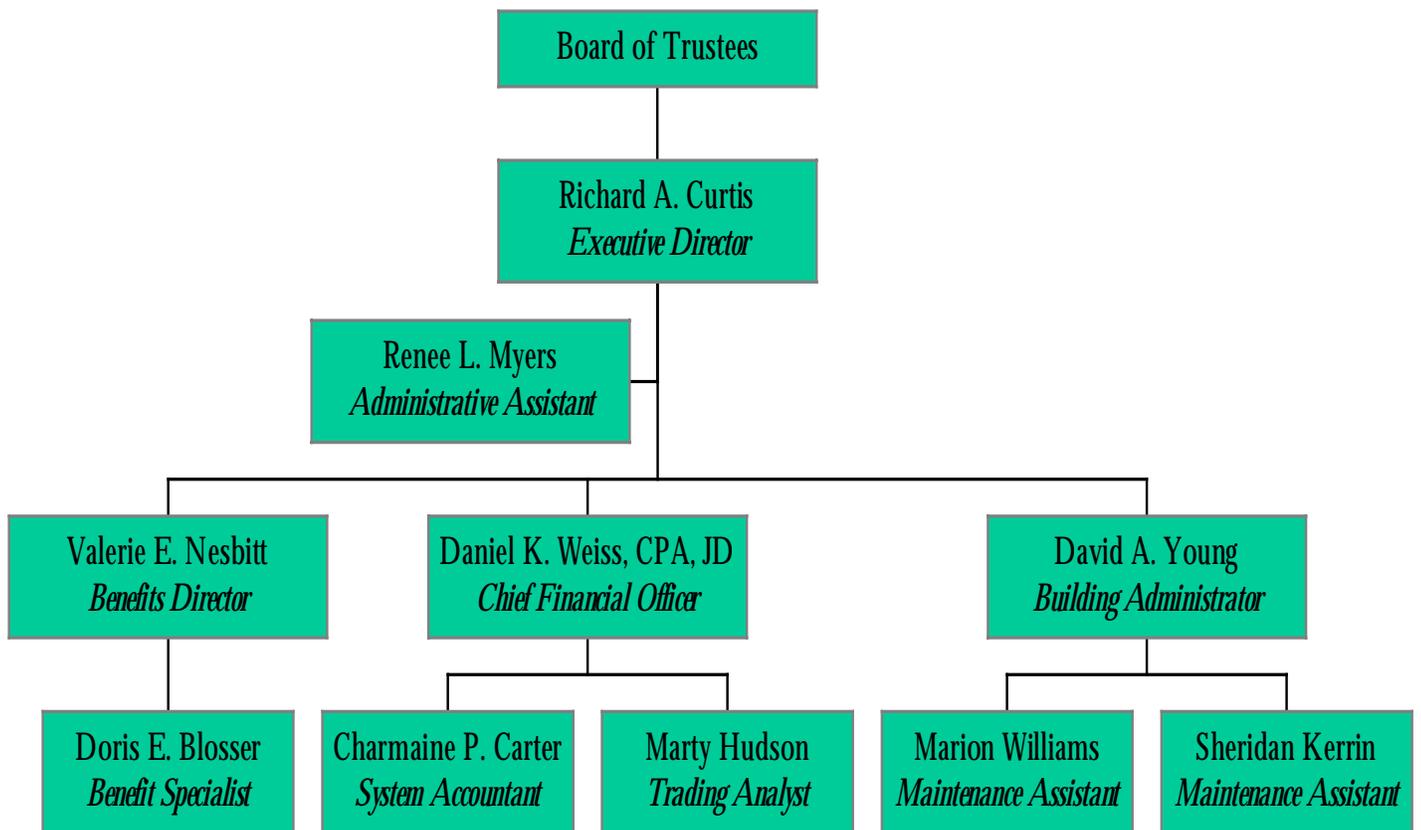


Richard A. Curtis  
*Executive Director*



Cheryl Pokorny  
Assistant Attorney General  
*Legal Counsel*

# Organizational Chart



## Professional Consultants

### Medical Advisor

Glenn Mohler, M.D.  
Columbus, Ohio

### Independent Auditor

Clark, Shaefer, Hackett & Company  
Columbus, Ohio

### Actuary

Gabriel, Roeder, Smith & Company  
Southfield, Michigan

### Investment Consultant

Callan Associates Inc.  
Chicago, Illinois

## Investment Managers

Bank of Ireland Asset Management  
Greenwich, Connecticut  
*International Equity Funds*

Brandywine Asset Management  
Wilmington, Delaware  
*Small/Mid Cap Value Equity*

Eubel, Brady & Suttman  
Dayton, Ohio  
*Small/Mid Cap Value Equity*

Fidelity Management Trust Company  
Boston, Massachusetts  
*Real Estate Funds*

INTECH  
Palm Beach Gardens, Florida  
*Large Cap Growth Equity*

JPMorgan Fleming Asset Management  
New York, New York  
*International Equity Funds*

MacKay-Shields Financial Corporation  
New York, New York  
*Large Cap Value Equity*

Metropolitan Life Insurance Company  
New York, New York  
*Real Estate Funds*

Munder Capital Management  
Birmingham, Michigan  
*Fixed Income*

Oak Associates  
Akron, Ohio  
*Large Cap Growth Equity*

Pinnacle Associates LTD.  
New York, New York  
*Small/Mid Cap Core Equity*

State Street Global Advisors  
Boston, Massachusetts  
*Large Cap Indexed Funds*

TimberVest  
Woodstock, Georgia  
*Timberland Real Estate*

Western Asset  
Pasadena, California  
*Fixed Income*

World Asset Management  
Birmingham, Michigan  
*Small-Mid Cap Indexed Funds*

*See page 42*

## Legislative Summary

During 2002 very few issues relating to pension benefits were considered at the national level. Congress spent most of its time dealing with budget and national security issues.

Some congressional committees and appointed groups considered the status and operations of Social Security and Medicare/Medicaid. It is widely recognized that these programs cannot continue for the long term under the funding structures that currently exist. Discussions frequently addressed ways to increase short-term cash flow and reduce long-term liabilities. Most every discussion included some means of privatizing all or some of the investments. The discussions usually stall at that point due to the disparate views held by the various committee members.

Recent discussions about the “windfall” and “offset” provisions of Social Security have returned the notion of mandatory coverage to the national discussion. The windfall and offset provisions impact state and local government employees when they receive pension benefits from non-Social Security covered wages. Several members of Congress are motivated to reduce the impact of these provisions on government workers, but the general state of the economy and the financial position of Social Security make these discussions ill-timed. In discussing these provisions, the issue of mandatory coverage for all

state and local workers is always inserted in the agenda as a way to achieve “universal” coverage and eliminate the negative impacts of windfall and offset.

During 2002 the Ohio Legislature passed House Bill 373 and several changes were made to the HPRS. First, a partial lump sum alternative was added to the list of pension alternatives available to active members. This provision permits a retiree to draw a specified amount of cash from his/her retirement account and then receive a reduced monthly benefit for life. The option is known as PLUS and functions in a similar manner to Deferred Retirement Option Plans (DROP) available in other public safety pension plans. Some modernization of technical language of various portions of Chapter 5505 was also included in this bill. In general, these changes will permit the Board to function more efficiently in administering pension applications, especially disability applications.

The original version of HB 373 contained several benefit enhancements for both active and retired members but these provisions were removed due to the lack of funding for them resulting from rapidly declining investment returns and rapidly increasing medical/prescription drug costs. It is likely to be several years before benefit enhancements can be considered again.

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COLUMBUS, OHIO 43229**



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FAX (614) 431-9204**

May 31, 2003

## **Letter of Transmittal**

Dear Members of the Board of Trustees:

It is our privilege to submit to you the *Comprehensive Annual Financial Report* for the Highway Patrol Retirement System (HPRS) for the fiscal year ending December 31, 2002. Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, rests with the management of the system. We believe this report reflects a careful stewardship of the system's assets and dedicated service to our members and our retirants.

The Ohio General Assembly established the Highway Patrol Retirement System in 1944 as a retirement system whose membership was limited to state troopers and communications personnel employed by the Highway Patrol. This creation of a statewide defined benefit plan followed eleven years of membership in the Public Employees Retirement System of Ohio. Today membership in the Highway Patrol Retirement System is limited to troopers with arrest authority, trooper cadets in training while at the Highway Patrol Training Academy, and members of the radio division.

Benefits provided to plan participants include age and service related pensions, disability retirement, survivor pensions, death benefits and health care coverage for pension benefit recipients and their eligible dependents. A more detailed pension and benefits description is provided in the Plan Summary.

The *Comprehensive Annual Financial Report* is divided into five sections -- (1) the Introductory Section including this letter of transmittal and information about the organization of HPRS, (2) the Financial Section containing the general purpose financial statements, a Management Discussion & Analysis of the financial data, and the Independent Auditor's Report, (3) the Investment Section containing portfolio listings, statistical charts, and the Investment Policy adopted by the Board, (4) the Actuarial Section detailing the results of annual actuarial valuations, the independent actuary's opinion as to the financial stability of the system, and the system's

Plan Summary, and (5) the Statistical Section including historical data to identify progress of the system.

### **Major Initiatives and Changes Enacted**

The Highway Patrol Retirement System was created to provide quality benefits for members, retirants, and surviving dependents. Although health care benefits are not required by statute, HPRS has provided this coverage at no cost to retirants and surviving widows, and to eligible dependents at a modest premium, since July 1974. Providing quality health care coverage while controlling costs continues to be a major responsibility of the Board. HPRS health care benefits are pre-funded, and each year the Board evaluates the preceding year's health care expenditures and implements any needed changes in plan design, co-payments, deductibles, and premiums. In August 1999, the system began providing vision coverage to benefit recipients at no additional cost, and in January 2000, dental coverage was also added at no additional cost. The Board will continue to monitor the benefits and costs of health care and seek to provide the best coverage possible at an affordable cost.

In the past four years, increases in prescription drug costs have far exceeded those of other health care costs. Members are receiving prescription benefits at five times the rate of 1970. While there has been an accelerated trend toward drug therapy instead of clinical treatment, ostensibly to reduce hospitalizations and otherwise limit health care costs, the system's experience indicates that the increased costs of prescription drugs has far exceeded any savings offset.

### **Investments**

The funds of the system are invested to maximize both current income yield and long-term appreciation. The HPRS investment policy objective is to assure that the

system meets the responsibility of providing quality benefits for retirants and their surviving dependants. The portfolio is diversified to earn the highest possible rate of return while operating within the *prudent person* parameters of risk to protect the fund from severe depreciation during adverse market conditions.

The Highway Patrol Retirement System portfolio decreased to \$511.3 million (excluding collateral on loaned securities) as of December 31, 2002, representing a 10.7% decrease from 2001. Investment returns for the total fund in 2002 were -8.36%, with a three-year total return of -3.82%, and a five-year return of -0.36%. A new asset allocation was implemented on January 1, 2002.

### **Funding**

HPRS funding is authorized by Ohio Revised Code Section 5505.15. In 2002, the employee contribution was calculated as 9.50% of gross payroll, and deducted prior to the calculation of federal taxes. Effective March 24, 2003, the employee contribution rate was increased to 10.00%.

Every even-numbered year, the Board of HPRS certifies the employer contribution rate to the Ohio Office of Budget and Management for inclusion in the biennial budget beginning the first day of July of the following year. The 2002 employer contribution rate was 23.50% of employee gross payroll. Effective July 1, 2003, the employer contribution rate will increase to 24.50%.

The employer contribution rate includes contributions related to both pension benefits and postemployment health care. The portions of the employer contribution rate allocated to pension benefits and health care are 18.75% and 4.75%, respectively. Unfunded actuarial accrued pension liabilities are amortized over a twenty-nine-year period from December 31, 2001.

The goal of the Board has been to limit the period of unfunded liability to no more than 30 years. This has been accomplished since 1992. Since 1991, the unfunded liabilities for pension obligations and health care costs have been reported separately.

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

The Governmental Finance Officers Association of the United State and Canada (GFOA) awarded a *Certificate of Achievement for Excellence in Financial Reporting* to the Highway Patrol Retirement System for its Comprehensive Annual Financial Report (CAFR) for the

year ending December 31, 2001. To be awarded a *Certificate of Achievement*, a governmental unit must publish an easily readable and efficiently organized report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A *Certificate of Achievement* is valid for one year. This 2002 report is expected to meet the *Certificate of Achievement* program requirements and will be submitted to the GFOA to determine its eligibility for an additional certificate.

### **Professional Services**

To aid in efficient and effective management of the system, professional services are provided to the Highway Patrol Retirement System by consultants appointed by the Board. Gabriel, Roeder, Smith & Company of Southfield, Michigan provides actuarial services. The investment advisor to the Board is Callan Associates of San Francisco, California. Clark, Shaefer, Hackett & Company, Certified Public Accountants of Columbus, Ohio, audited the financial records of the system, under contract with the Auditor of the State of Ohio.

### **Acknowledgments**

The preparation of this report reflects the combined efforts of the system'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, a means for determining compliance with legal provisions, and a means for determining responsible stewardship over the assets contributed by the members and their employer, the State of Ohio.

This report is being mailed to all Highway Patrol facilities where members are assigned, to professional services used by the Highway Patrol Retirement System, to legislative members in a leadership position, and to any person or agency who requests a copy.

Respectfully Submitted,



Richard A. Curtis, Executive Director



Daniel K. Weiss, CPA, JD, Chief Financial Officer



# Financial Section



Clark, Schaefer, Hackett & Co.  
CERTIFIED PUBLIC ACCOUNTANTS  
BUSINESS CONSULTANTS

## Independent Auditors' Report

The Retirement Board  
Ohio State Highway Patrol Retirement System:

We have audited the accompanying combining statement of plan net assets of the Ohio State Highway Patrol Retirement System (HPRS), a component unit of the State of Ohio, as of December 31, 2002 and the related combining statement of changes in plan net assets for the year then ended. These financial statements are the responsibility of HPRS' management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

In our opinion, the financial statements referred to above present fairly in all material respects the plan net assets of the Ohio State Highway Patrol Retirement System as of December 31, 2002 and the changes in plan net assets for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued our report dated March 26, 2003 on our consideration of the Ohio State Highway Patrol Retirement System's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations and contracts. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

The Management's Discussion and Analysis on pages 13-15 and the Required Supplementary Information on pages 23-24 are not a required part of the basic financial statements but are supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it. Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying financial information listed as Additional Supplementary Schedules in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in our audit of the basic financial statements and, in our opinion, is fairly presented in all material respects in relation to the basic financial statements taken as a whole.

The introductory section on pages 1 through 10, the investment section on pages 28 through 45, the actuarial section on pages 46 through 55, and the statistical section on pages 56 through 59 have not been subjected to the auditing procedures applied in the audit of the basic financial statements and accordingly, we express no opinion on them.

Clark, Schaefer, Hackett & Co.

Columbus, Ohio  
March 26, 2003

# Management's Discussion and Analysis

## Financial Highlights

- At December 31, 2002, the assets of HPRS exceeded liabilities by \$513,415,930. All of the net assets are held in trust for pension and health benefits, and are available to meet HPRS's ongoing obligation to plan participants and their beneficiaries.
- HPRS's total net assets decreased by \$62,539,750, or 10.9%, with 79.3% of this decline attributable to investment activity.
- HPRS's funding objective is to meet long-term benefit obligations through contributions and investment income. At December 31, 2001, the date of the latest actuarial valuation, HPRS funds totaled 86.6% of projected obligations.
- Revenues (Additions to Plan Net Assets) for the year were (\$22,328,382), which includes member and employer contributions of \$27,266,957 and an investment loss of \$49,595,337.
- Expenses (Deductions in Plan Net Assets) increased 8.7% over the prior year. Of this amount, pension benefits increased by 6.3%, health care expenses increased by 13.7%, and administrative expenses decreased by 12.0%.

## Overview of the Financial Statements

HPRS's financial statements consist of these components:

1. Combining Statement of Plan Net Assets.
2. Combining Statement of Changes in Plan Net Assets.
3. Notes to the Financial Statements.

This report also contains other supplementary information in addition to the basic financial statements themselves.

The *Combining Statement of Plan Net Assets* provides a snapshot of account balances at year-end, indicating the assets available for future payments to retirees, less any current liabilities of the system.

The *Combining Statement of Changes in Plan Net Assets* provides a summary of current year additions and deductions to the plan. At December 31, 2001, the date of the latest actuarial valuation, HPRS's current funding ratio was 86.6%. This means that HPRS's

fund had approximately \$.87 available for each \$1.00 of projected pension liability.

The *Combining Statement of Plan Net Assets* and the *Combining Statement of Changes in Plan Net Assets* report information about HPRS's activities and financial position. These statements reflect the full accrual basis of accounting, which is similar to the accounting method used by most private sector companies. All of the current year's revenues and expenses are taken into account regardless of when cash is received or paid. All investment gains and losses are shown at trade date rather than settlement date. Investments are shown at fair value, reflecting both realized and unrealized gains and losses. Capital assets are depreciated over their useful lives.

The difference between HPRS assets and liabilities is reported on these statements as *Net Assets Held in Trust for Pension and Postemployment Health Care Benefits*. Over time, increases and decreases in HPRS's net assets are one indicator of whether the fund's financial health is improving or deteriorating. Other factors, such as market conditions, should be considered in measuring HPRS's overall health (see HPRS's financial statements on pages 16-17 of this report).

The *Notes to the Financial Statements* provide additional information that is essential to a full understanding of the data provided in the financial statements (see *Notes to the Financial Statements* on pages 18-22 of this report).

## Other Information

In addition to the financial statements and accompanying notes, this report presents certain required supplementary information concerning HPRS's progress in funding its obligations to provide pension benefits to members (see *Required Supplementary Schedules* on page 23 of this report).

The schedules of administrative expenses, investment expenses, and payments to consultants are presented immediately following the required supplementary information.

## HPRS Activities

### Revenues - Additions to Plan Net Assets.

Employer and member contributions, as well as income from investments, provide reserves needed to finance retirement benefits. In 2002, total contributions, less investment losses in an unfavorable market, resulted in negative additions of \$22.3 million. Employer and member contributions each increased by 7.4%, primarily because of increases in base payroll.

#### Revenues - Additions to Plan Net Assets (In 000's)

	<u>2002</u>	<u>2001</u>	<u>\$ Change</u>	<u>% Change</u>
Investment Losses	(\$49,595)	(\$20,820)	(\$28,775)	(138.2%)
Employer Contributions	18,705	17,423	1,282	7.4%
Member Contributions	7,563	7,042	521	7.4%
Other	999	999	--	--
Total Additions	<u>(\$22,328)</u>	<u>\$4,644</u>	<u>(\$26,972)</u>	<u>(580.8%)</u>

The investment section of this report summarizes the result of investment activity for the year ended December 31, 2002.

### Expenses - Deductions from Plan Net Assets.

The HPRS was created to provide retirement, disability, and survivor benefits to qualified members and their beneficiaries. The cost of these programs includes benefit payments as designated by the plan, refunded contributions, and the administrative costs of the system. In 2002, total deductions from plan net assets increased 8.7%. This increase was attributable to an increase in the number of benefit recipients, cost of living adjustments, a 13.7% increase in health care costs, and a 135.3% increase in transfers to other systems.

### Expenses - Deductions from Plan Net Assets (In 000's)

	<u>2002</u>	<u>2001</u>	<u>\$ Change</u>	<u>% Change</u>
Pension Benefits	\$31,325	\$29,457	\$1,868	6.3%
Refunds of Member Contributions	266	307	(41)	(13.4%)
Health Care	7,025	6,179	846	13.7%
Administrative Expenses	541	615	(74)	(12.0%)
Transfers to Other Ohio Systems	1,054	448	606	135.3%
Total Deductions	<u>\$40,211</u>	<u>\$37,006</u>	<u>\$3,205</u>	<u>8.7%</u>

## Changes in Net Assets

In 2002, *Net Assets Held in Trust for Pension and Postemployment Health Care Benefits* declined by \$62,539,750, or 10.9%. Investment losses attributable to the depreciation in fair values of investments equaled \$62,877,485, or roughly the equivalent of this decrease in net assets. All of the net assets are available to meet HPRS's ongoing obligation to plan participants and their beneficiaries.

#### Changes in Net Assets (In 000's)

	<u>2002</u>	<u>2001</u>
Beginning Balance	\$575,956	\$608,318
Ending Balance	<u>513,416</u>	<u>575,956</u>
Total Change	<u>(\$62,540)</u>	<u>(\$32,362)</u>
% Change	<u>(10.9%)</u>	<u>(5.3%)</u>

## Capital Assets

As of December 31, 2002, HPRS's investment in capital assets totaled \$134,822 (net of accumulated depreciation), a decrease of \$51,905, or 27.8% from December 31, 2001. This investment in capital assets includes office equipment, software, and furniture for administrative use. The decrease in HPRS's investment in capital assets for the current year was largely attributable to the retirement of older, nonproductive assets.

## Total Assets

In 2002, total assets increased by \$30,668,058, or 5.2%, primarily as a result of an increase in securities lending activity. The increase in total assets attributable to a higher level of securities lending activity was \$93,107,561. Without this increase, total assets would have declined by \$62,439,503, or 10.5%, primarily because of investment losses.

### Assets (In 000's)

	<u>2002</u>	<u>2001</u>	<u>\$ Change</u>	<u>% Change</u>
Cash & Short-Term Investments	\$12,793	\$30,855	(\$18,062)	(58.5%)
Receivables	4,219	5,548	(1,329)	(24.0%)
Investments, at Fair Value	608,653	558,539	50,114	9.0%
Other Assets	178	233	(55)	(23.6%)
Total Assets	<u>\$625,843</u>	<u>\$595,175</u>	<u>\$30,668</u>	<u>5.2%</u>

## Total Liabilities

As with total assets, total liabilities increased by \$93,207,808, or 485.0%, primarily as a result of an increase in securities lending activity. The increase in total liabilities attributable to a higher level of securities lending activity was \$93,107,561. Without this increase, total liabilities would have increased by only \$100,247, or 0.1%.

## Liabilities (In 000's)

	<u>2002</u>	<u>2001</u>	<u>\$ Change</u>	<u>% Change</u>
Current Liabilities	112,427	19,219	\$93,208	485.0%
Total Liabilities	<u>112,427</u>	<u>19,219</u>	<u>\$93,208</u>	<u>485.0%</u>

## Summary

Despite fluctuations in the securities markets that resulted in a decline in net asset values, management and HPRS's actuary concur that HPRS remains in a financial position to meet its obligations to the plan participants and beneficiaries. The current financial position of HPRS is the result of a very strong and successful investment program, risk management, and strategic planning.

## Requests for Information

This financial report is designed to provide retirees, members, trustees, and investment managers with a general overview of HPRS's finances and to show accountability for the money it receives. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Chief Financial Officer, HPRS, 6161 Busch Boulevard, Suite 119, Columbus, OH 43229-2553.

## Combining Statement of Plan Net Assets

December 31, 2002

	Pension	Postemployment Health Care	Total
<b>Assets</b>			
Cash and Short-Term Investments	\$10,933,558	\$1,860,161	\$12,793,719
<b>Receivables</b>			
Accrued Investment Income	1,024,868	174,364	1,199,232
Employer Contributions Receivable	1,198,801	303,696	1,502,497
Member Contributions Receivable	1,426,039	--	1,426,039
Tenant Rent Receivable	78,063	13,281	91,344
Total Receivables	3,727,771	491,341	4,219,112
<b>Investments, at Fair Value</b>			
Domestic Equity	203,705,332	34,657,036	238,362,368
Fixed Income	106,441,524	18,109,235	124,550,759
Real Estate	67,704,605	11,518,800	79,223,405
International Equity	48,138,084	8,189,885	56,327,969
Collateral on Loaned Securities	94,167,264	16,020,976	110,188,240
Total Investments	520,156,809	88,495,932	608,652,741
Prepaid Expenses	36,673	6,239	42,912
Property and Equipment, Net	115,219	19,603	134,822
Total Other Assets	151,892	25,842	177,734
Total Assets	534,970,030	90,873,276	625,843,306
<b>Liabilities</b>			
Accrued Health Care Benefits	--	914,094	914,094
Accounts Payable	987,829	168,062	1,155,891
Other Liabilities	43,089	7,331	50,420
Accrued Payroll and Withholdings	101,468	17,263	118,731
Obligations Under Securities Lending	94,167,264	16,020,976	110,188,240
Total Liabilities	95,299,650	17,127,726	112,427,376
Net Assets Held in Trust for Pension and Postemployment Health Care Benefits	\$439,670,380	\$73,745,550	\$513,415,930

(A *Schedule of Funding Progress* is presented on page 23.)  
See accompanying *Notes to Financial Statements*.

## Combining Statement of Changes in Plan Net Assets

Year Ending December 31, 2002

	Pension	Postemployment Health Care	Total
<b>Additions</b>			
Contributions			
Employer	\$14,923,893	\$3,780,715	\$18,704,608
Member	7,563,173	---	7,563,173
Transfers from Other Systems	999,176	---	999,176
Total Contributions	<u>23,486,242</u>	<u>3,780,715</u>	<u>27,266,957</u>
Investment Activity			
Net Depreciation in Fair Value of Investments	(54,272,925)	(8,604,560)	(62,877,485)
Interest Income	6,453,195	1,097,902	7,551,097
Dividend Income	6,454,946	1,098,201	7,553,147
Real Estate Operating Income, Net	323,833	55,095	378,928
	<u>(41,040,951)</u>	<u>(6,353,362)</u>	<u>(47,394,313)</u>
Less: Investment Expenses	1,943,849	330,713	2,274,562
Net Income from Investment Activity	<u>(42,984,800)</u>	<u>(6,684,075)</u>	<u>(49,668,875)</u>
Income from Security Lending Activity			
Gross Income	973,701	165,659	1,139,360
Less: Borrower Rebates	876,070	149,049	1,025,119
Less: Management Fees	34,787	5,918	40,705
Net Income from Security Lending Activity	<u>62,844</u>	<u>10,692</u>	<u>73,536</u>
Total Net Investment Income	<u>(42,921,956)</u>	<u>(6,673,383)</u>	<u>(49,595,339)</u>
Total Additions	<u>(19,435,714)</u>	<u>(2,892,668)</u>	<u>(22,328,382)</u>
<b>Deductions</b>			
Benefits Paid Directly to Participants	31,325,089	---	31,325,089
Refunds of Member Contributions	266,137	---	266,137
Health Care Expenses	---	7,025,043	7,025,043
Administrative Expenses	462,200	78,635	540,835
Transfers to Other Systems	1,054,264	---	1,054,264
Total Deductions	<u>33,107,690</u>	<u>7,103,678</u>	<u>40,211,368</u>
Net Decrease	<u>(52,543,404)</u>	<u>(9,996,346)</u>	<u>(62,539,750)</u>
Net Assets Held in Trust for Pension and Postemployment Health Care Benefits			
Balance, December 31, 2001	<u>492,213,784</u>	<u>83,741,896</u>	<u>575,955,680</u>
Balance, December 31, 2002	<u>\$439,670,380</u>	<u>\$73,745,550</u>	<u>\$513,415,930</u>

See accompanying *Notes to Financial Statements*.

# Notes to Financial Statements

Year Ending December 31, 2002

## Summary of Significant Accounting Policies

The following are the significant accounting principles and practices of the Highway Patrol Retirement System (HPRS).

**Organization** - HPRS (the Plan) is a single-employer retirement system for uniformed and radio personnel of the Ohio State Highway Patrol. The plan was created by Chapter 5505 of the Ohio Revised Code (Revised Code) and is administered by a Board comprised of four active members, one retired member, and two voting ex-officio members. HPRS, a separate financial reporting entity in accordance with criteria established by Governmental Accounting Standards Board Statement No. 14, is a component unit of the State of Ohio.

HPRS administers both a defined benefit pension plan and a postemployment health care plan. All financial information for pensions and health care is presented separately in the combining financial statements.

**Basis of Accounting** - HPRS financial statements are prepared using the accrual basis of accounting, under which expenses are recorded when the liability is incurred and revenues are recorded when they are earned and become measurable. Member and employer contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan. Investment purchases and sales are substantially recorded as of their trade date. Administrative expenses are financed by investment income. HPRS funding is determined on an actuarial basis using the entry age normal cost method.

Pursuant to GASB Statement No. 20, *Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that use Proprietary Fund Accounting* the system follows GASB guidance as applicable to proprietary funds and Financial Accounting Standards Board Opinions and Accounting Research Bulletins issued on or before November 30, 1989 that do not conflict with or contradict GASB pronouncements.

The accounting and reporting policies of HPRS conform to accounting principles generally accepted in the United States of America (GAAP). The preparation of financial statements in conformity with GAAP

requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from these estimates.

The employees of HPRS are members of the Ohio Public Employee Retirement System (OPERS).

GASB Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*, and Statement No. 26, *Financial Reporting for Postemployment Health Care Plans Administered by Defined Benefit Pension Plans*, require that plan assets be split between pension benefits and health care. To meet this requirement, plan assets and liabilities not specifically identifiable to a plan were proportionately allocated to the pension and postemployment health care plans.

**Investments** - Section 5505.06 of the Ohio Revised Code authorizes HPRS to invest in various instruments (meeting various guidelines), including the following:

- commercial paper issued by a U. S. corporation and rated Prime-1 by Moody's Investor Service, A-1 by Standard and Poor's Corporation, and/or Duff-1 by Duff and Phelps Investment Management Company with the parent company's long-term debt being rated within the three highest classifications by Moody's, Standard and Poor's, and/or Duff and Phelps,
- obligations of the U. S. Treasury, federal agencies, government-sponsored corporations, and government-backed repurchase agreements,
- bonds, notes and other debt securities rated within the three highest classifications by at least two of the rating services (Moody's, Standard and Poor's, and Duff and Phelps),
- equities approved by an outside investment advisor,
- high quality money-market instruments, and

- real estate and related securities including improved or unimproved real property, mortgage collective investment funds, notes secured by real property, mortgage-backed bonds, and pass-through securities backed by mortgages.

Income on all investments is recognized on the accrual basis. Gains and losses on sales and exchanges, recognized on the trade date, are determined using the average cost of the security sold for equity securities and the specific cost of securities sold for all other investments.

All investments are reported at fair value. Fair value is the amount that the plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller -- that is, other than in a forced or liquidation sale. Short-term investments are reported at cost, which approximates fair value. Corporate bonds are valued at the median price by the brokerage firms. Securities traded on a national exchange are valued at the last reported sales price at current exchange rate. The fair value of real estate managed by HPRS is based upon independent appraisal.

**Derivatives** – Derivatives are instruments on which the cash flows or fair values are derived from the value of some other asset or index. HPRS uses a variety of derivatives in order to maximize yields and offset volatility from interest rate and currency fluctuations. The system is exposed to general credit, market, and legal risks associated with these types of investments. HPRS investment managers monitor these investments with extreme care and are not aware of any undue risks from them.

**Net Depreciation in Fair Value of Investments** - Net depreciation, or appreciation, is determined by calculating the change in the fair value of investments between the beginning of the year and the end of the year, less purchases of investments at cost, plus sales of investments at fair value. Investment expense consists of those expenses directly related to HPRS investment operations, as well as a proportional amount of all other administrative expenses allocated based on a ratio of HPRS investment staff to total HPRS staff. HPRS has no individual investment that exceeds 5% of net assets available for benefits.

**Accrued Health Care Benefits** - Accrued health care benefits are based upon estimates furnished by the claims administrator. These estimates have been developed from prior claims experience.

**Federal Income Tax Status** - HPRS is a qualified entity under Section 501(a) of the Internal Revenue Code and is therefore exempt from federal income taxes.

**Capital Assets** – An item of property or equipment in excess of \$500 is capitalized at cost when acquired. An improvement that extends the useful life of an asset is capitalized. An expenditure for maintenance or repair of an asset is expensed as incurred. Depreciation is computed using the straight-line method over the following range of useful lives of the assets:

Furniture and Fixtures	1 - 10 years
Office Equipment	1 - 10 years

**Plan Description**

**Purpose** - HPRS was established in 1944 by the Ohio General Assembly as a single-employer, defined benefit pension and postemployment health care plan. HPRS is authorized to provide retirement and disability benefits, postemployment health care benefits, annual cost-of-living adjustments, and death benefits to retired members, as well as survivor benefits to qualified dependents of deceased members of the Ohio State Highway Patrol. Chapter 5505 of the Ohio Revised Code provides statutory authority to establish and amend benefits. HPRS is considered part of the State of Ohio financial reporting entity and is included in the State's Comprehensive Annual Financial Report as a pension trust fund.

**Administration** - The general administration and management of HPRS is vested in a seven-member Retirement Board consisting of four elected members, one elected retirant, and two statutory members. The Board appoints an executive director, actuary, investment consultant, and employees.

**Membership** - HPRS membership consisted of the following at December 31, 2001 (our latest available actuarial data):

<u>Pension Benefits</u>	
Retirants & beneficiaries currently receiving benefits	1,207
Terminated members not yet receiving benefits	7
<u>Current members</u>	
Vested	306
Nonvested	1,214

**Contributions** - The Ohio Revised Code requires contributions by active members and the Ohio State Highway Patrol. The member contribution rate is established by the Ohio General Assembly and any change in the rate requires legislative action. The employer contribution rate is established by the Board of HPRS and certified to the State of Ohio every two years. By law, the employer rate may not exceed three times the member contribution rate.

An Employee Savings Fund exists for member contributions. Contributions may be refunded to a member who terminates employment with the Ohio State Highway Patrol or to the member's beneficiary following the member's death, if no survivor benefits are payable.

**Benefits** - Members are eligible for normal retirement benefits upon reaching age 52 and accumulating at least 20 years of Ohio State Highway Patrol service credit. The benefit is a percentage of the member's final average salary, defined as the average of the member's three highest salaried years. The percentage is determined by multiplying 2.5% times the first 20 years of service, plus 2.25% for the next 5 years of service, plus 2.0% for each year in excess of 25 years of service. A member's pension may not exceed 79.25% of the final average salary. Early retirement with reduced benefits is available upon reaching age 48 with 20 years of service credit. Early retirement with normal benefits is available upon reaching age 48 with 25 years of service credit.

In addition to retirement benefits, HPRS also provides for disability, survivor, and health care benefits. Qualified dependents of a deceased member are eligible for monthly survivor benefits. All members receiving a benefit are eligible to receive medical insurance.

Members with credited service in Ohio Public Employees Retirement System (OPERS), School Employees Retirement System (SERS), State Teachers Retirement System (STRS), Cincinnati Retirement System (CRS), or the military are eligible to receive transferred credited service from either or all of these systems. Any service, except for military service, that is not concurrent with service within HPRS will be included in the determination of retirement benefits. Similarly, a member with credited service and funds in HPRS may transfer such service to OPERS, SERS, STRS, or CRS upon retirement.

## Cash and Investments

**Deposits** - HPRS maintains cash and an investment pool. Cash and cash equivalents include investments in highly liquid debt instruments with an original maturity of three months or less. At December 31, 2002, the carrying value of all HPRS's book deposits was \$12,793,719 (which includes money market funds of \$12,038,893), as compared to bank balances of \$24,870,165. The differences in the carrying amount and the bank balances are caused by outstanding warrants/checks and deposits in transit. Of the bank balances, the Federal Deposit Insurance Corporation insured \$136,355. The remaining bank balance was covered by collateral held in the name of HPRS' pledging financial institution in a pooled collateral fund for all public funds, as required by state statute.

**Investments** - HPRS investments are categorized to give an indication of the level of risk assumed by HPRS at year-end. Category 1 includes investments that are insured, registered, or for which the securities are held by HPRS or its agent in the name of HPRS. Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent, in the name of HPRS. 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 name of HPRS.

All investments of HPRS meet the criteria of Category 1, except for real estate investments totaling \$79,223,405 that, by their nature, are not required to be categorized. Fair value of securities is based primarily on quotations from national security exchanges. Fair values of investments in real estate are based on information provided by the fund's managers or at the net present value of the projected net income stream for assets not managed independently.

Section 5505.06 of the Ohio Revised Code and the Board of Trustees authorizes HPRS to participate in a securities lending program. Under this program, administered by Victory Capital Management, securities are loaned to investment brokers/dealers (borrower). In return, HPRS receives cash collateral and agrees to return the collateral for the same securities in the future. Cash collateral from securities loaned is, simultaneous to the loan, reinvested in repurchasing agreements ("repo's"). Securities loaned and repo's are collateralized at a minimum of 102 percent of the fair value of loaned securities. Collateral is marked-to-market daily. If the fair value of the collateral held falls below 102 percent

of the fair value of securities loaned, additional collateral is provided. The maturity of the repo's is always identical to the maturity of the securities loaned. Further, there is always a positive spread between the cost of funds raised from securities loaned and the income earned from the associated repo's. At year-end, HPRS had no credit risk exposure to borrowers because the fair value of collateral HPRS held exceeded the fair value of securities loaned. Either HPRS or the borrowers can terminate all loans on demand. The custodial bank and its affiliates are prohibited from borrowing HPRS securities. HPRS cannot pledge or sell collateral securities received unless the borrower defaults.

As of December 31, 2002, the fair values of loaned securities and associated collateral (repo agreements and short-term investments) were \$107,740,823 and \$110,188,240, respectively.

Total net proceeds from securities lending was \$73,536 in 2002.

Investments at December 31, 2002

	<u>Fair Value</u>
Domestic Equity	\$238,362,368
U.S. Government Obligations	24,299,393
Mortgage Pass-Through Securities	6,508,942
Collateralized Mortgages	31,488,319
Corporate Bonds	21,245,641
Asset-Backed Securities	15,990,573
Collateral on Loaned Securities	110,188,240
Fixed Income Funds	25,017,891
Real Estate	79,223,405
International Equity	<u>56,327,969</u>
Total	<u>\$608,652,741</u>

**Property and Equipment**

The following is a summary of equipment, at cost, less accumulated depreciation, at December 31, 2002:

Furniture and fixtures	\$71,743
Equipment	<u>221,148</u>
	\$292,891
Accumulated depreciation	<u>(158,069)</u>
Total	<u>\$134,822</u>

Depreciation expense charged to the plan was \$41,259 for the year ending December 31, 2002.

**Contributions**

The Ohio Revised Code requires contributions by active members and the Ohio State Highway Patrol. The Retirement Board, within the allowable rates established by the Ohio Revised Code, establishes contribution rates. In 2002, active members and the Ohio State Highway Patrol were required to contribute the following percentages of active member payroll:

<u>Member</u>	<u>Employer</u>
9.50%	23.50%

The Board of HPRS allocated the employer contribution rate to basic retirement benefits and health care benefits as follows:

<u>Basic Retirement</u>	<u>Health Care</u>	<u>Total</u>
18.75%	4.75%	23.50%

The allocation of the employer contribution rate to basic retirement benefits has been established as the rate necessary to cover normal cost, plus the amortization of the unfunded actuarial accrued liabilities based on a twenty-nine (29) year amortization schedule. The contribution rate allocated to health care benefits is sufficient to cover normal costs, and to provide level cost financing of the unfunded actuarial accrued liabilities. The adequacy of the employer contribution rate is determined using the entry age normal cost method.

**Health Care**

In addition to providing pension benefits, HPRS pays health insurance claims on behalf of all persons receiving monthly pension or survivor benefits and Medicare part B basic premiums for those eligible benefit recipients upon proof of coverage. In general, costs of retiree health care benefits are recognized as claims are incurred and premiums are paid. Health care benefit expenses in 2002 of \$7,025,043 are shown on the accompanying *Combining Statement of Changes in Plan Net Assets*.

**Pension Benefits**

All employees of HPRS are eligible to participate in the Ohio Public Employees Retirement System, a cost-sharing multiple employer defined benefit pension plan. OPERS provides retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. Chapter 145 of the Ohio Revised Code provides statutory authority to

establish and amend benefits. The Ohio Public Employees Retirement System issues a stand-alone financial report that includes financial statements and required supplementary information. Interested parties may obtain a copy from OPERS, 277 East Town Street, Columbus, Ohio 43215-4642, Telephone (800) 222-7377.

The Ohio Revised Code provides statutory authority for member and employer contributions. In 2002, the member contribution rate was 8.5% and the employer rate for local employers was 13.55%. HPRS employer contributions to OPERS for the years ending December 31, 2002, 2001, and 2000 were \$62,664, \$56,424, and \$40,922, respectively, which were equal to the required contributions for each year.

### **Postemployment Benefits Other Than Pension Benefits**

Ohio Public Employment Retirement System provides postretirement health care coverage to age and service retirees with ten or more years of qualified Ohio service credit. Health care coverage is available to recipients of disability and primary survivor pensions. The health care coverage provided by OPERS is considered Other Postemployment Benefits (OPEB) as described in GASB 12. A portion of each employer's contribution to OPERS is set aside for the funding of postretirement health care. The portion of 2002 employer contributions that was used to fund health care for the year was 5.0% of the total 13.55% contribution, or 36.90% of the total employer contribution.

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

OPEB are financed through employer contributions and investment earnings thereon. The contributions allocated to retiree health care, along with investment income on allocated assets and periodic adjustments in health care provisions are expected to be sufficient to sustain the program indefinitely.

At December 31, 2001, OPERS had 402,041 active contributing participants. There were \$11.6 billion in net assets available for OPEB. The actuarially accrued liability and the unfunded actuarial accrued liability, based on the actuarial cost method used, were \$16.4 billion and \$4.8 billion, respectively.

HPRS employer contributions for OPEB in 2002 totaled \$23,123, which equaled the required contribution for the year.

### **Risk Management**

HPRS purchases insurance policies in varying amounts providing coverage for general liability, property damage, employee, and public official liability. No settlements exceeded insurance coverage over the past three years and coverage has not been significantly reduced.

### **Contingent Liabilities**

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

## Required Supplementary Schedules

### Schedule of Employer Contributions

Years Ending December 31, 1997-2002

<u>Year</u>	<u>Annual Required Contribution</u>	<u>% Contributed</u>
1997	\$12,236,515	100
1998	13,101,039	100
1999	13,569,730	100
2000	13,210,189	100
2001	13,901,313	100
2002	14,923,893	100

The amounts reported in this schedule do not include contributions for postemployment health care benefits.

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

### Schedule of Funding Progress

Years Ending December 31, 1996-2001

Valuation <u>Year</u>	Actuarial Accrued <u>Liab. (AAL)</u>	Valuation <u>Assets</u>	Unfunded Actuarial Accrued <u>Liab. (UAAL)</u>	Assets as a <u>% of AAL</u>	Active Member <u>Payroll</u>	UAAL as a <u>% of Active Member Payroll</u>
1996	\$454,514,187	\$411,316,254	\$43,197,933	90.5	\$59,239,349	72.9
1997 ▲	496,917,335	460,667,112	36,250,223	92.7	62,233,299	58.2
1998	532,956,745	509,859,924	23,096,821	95.7	65,153,864	35.4
1999 ▲	577,010,085	546,510,779	30,499,306	94.7	66,017,381	46.2
2000 ►	594,222,603	570,039,631	24,182,972	95.9	69,028,285	35.0
2001	636,715,458	551,279,438	85,436,020	86.6	76,344,002	111.9

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

▲ Plan amendment.

► Assumption or method change.

### Notes to the Trend Data

Information in the *Required Supplementary Schedules* is from the actuarial valuation for each year indicated.

Additional information from the latest actuarial valuation is as follows:

Valuation Date	December 31, 2001
Actuarial cost method	Entry Age
Amortization method	Level percent closed
Remaining amortization period	29 years for retirement allowances
Asset valuation method	4 year smoothed market
<u>Actuarial assumptions:</u>	
Investment rate of return	8.0%
Projected salary increases	4.8 - 8.2%, including wage inflation of 4.5%
Inflation	3% or more
Cost-of-living adjustments for retirants	CPI increases for years after age 53 (maximum of 3%)

## Notes To Required Supplementary Schedules

### Description of Schedule of Funding Progress

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

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

### Actuarial Assumptions and Methods

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at December 31, 2001.

An entry age normal actuarial cost method of valuation is used in determining benefit liabilities and normal cost. Differences in the past between assumed experience and actual experience (“actuarial gains and losses”) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal and interest) that are a level percent of payroll contributions.

The assets were valued on a market basis that recognizes each year’s gain or loss between actual and assumed investment return over a closed four-year period.

Other actuarial assumptions and methods are as follows:

- a rate of return on investments of 8.0% as of December 31, 2001, compounded annually, net of administration expenses,
- projected salary increases of 4.5%, compounded annually, attributable to inflation,
- additional projected salary increases ranging from 0.3% to 3.7% per year, depending on service, attributable to seniority and merit,
- postretirement mortality life expectancies of members based on the 1983 Group Annuity Mortality Male and Female Tables,
- rates of withdrawal from active service before retirement for reasons other than death, rates of disability, and expected retirement ages developed on the basis of actual plan experience,
- projected health care premium increases of 4.5%, compounded annually, attributable to inflation,
- health care benefit recipients are eligible for Medicare on attainment of age 65, or immediately, if retired for disability, and
- employer contributions paid in equal installments throughout the employer fiscal year.

The following employer, member, and retirant data is from the latest actuarial valuation, dated December 31, 2001:

#### Pension Benefits

Retirants & beneficiaries currently receiving benefits & terminated	
members not yet receiving benefits	\$374,228,361

#### Current members

Accumulated member contributions including allocated investment income	63,969,216
--	------------

## Additional Information

### Schedule of Administrative Expenses

Year Ending December 31, 2002

<b>Personnel</b>	<u>\$246,690</u>
<b>Professional and Technical Services</b>	
Computer services	13,089
Actuary	38,450
Training and seminars	20,476
Audit	13,718
Miscellaneous services by others	4,038
Medical services	9,561
Total Professional and Technical Services	<u>99,332</u>
<b>Communications</b>	
Printing	7,178
Postage	16,517
Telephone	10,111
Total Communications	<u>33,806</u>
<b>Other Expenses</b>	
Office Rent	65,923
Depreciation	41,259
Insurance	17,248
Equipment repairs and maintenance	2,834
Supplies	4,479
Miscellaneous	4,121
Loss on disposal of equipment	13,346
Retirement study commission	2,819
Travel	5,794
Membership and subscriptions	2,721
New equipment	463
Total Other Expenses	<u>161,007</u>
<b>Total Administrative Expenses</b>	<u><u>\$540,835</u></u>

Above amounts do not include investment department administrative expenses.

## Schedule of Investment Expenses

Year Ending December 31, 2002

<b>Personnel</b>	<u>\$208,068</u>
<b>Professional Services</b>	
Investment services	1,801,700
Monitor services	<u>241,128</u>
Total Professional Services	<u>2,042,828</u>
<b>Other Expenses</b>	
Computer Services	13,089
Memberships and subscriptions	4,082
Printing and supplies	<u>6,495</u>
Total Other Expenses	<u>23,666</u>
<b>Total Investment Expenses</b>	<u><u>\$2,274,562</u></u>

## Payments to Consultants

Year Ending December 31, 2002

<u>Consultant</u>	<u>Fee</u>	<u>Service</u>
Gabriel, Roeder, Smith & Co.	\$38,450	Actuarial
Clark, Schaefer, Hackett & Co.	13,260	Auditing
Callan Associates	242,878	Investment



Clark, Schaefer, Hackett & Co.  
CERTIFIED PUBLIC ACCOUNTANTS  
BUSINESS CONSULTANTS

Independent Auditors' Report on Compliance and on Internal Control Over Financial Reporting Based on an Audit of Financial Statements Performed in Accordance with *Government Accounting Standards*

The Retirement Board  
Ohio State Highway Patrol Retirement System:

We have audited the combining statement of plan net assets of the Ohio State Highway Patrol Retirement System (HPRS), as of December 31, 2002, and the related combining statement of changes in plan net assets for the year then ended, and have issued our report thereon dated March 26, 2003. We conducted our audit in accordance with auditing standards generally accepted in the United States of America applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Compliance

As part of obtaining reasonable assurance about whether the Ohio State Highway Patrol Retirement System's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations and contracts, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under *Government Auditing Standards*.

Internal Control Over Financial Reporting

In planning and performing our audit, we considered the Ohio State Highway Patrol Retirement System's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control over financial reporting. Our consideration of the internal control over financial reporting would not necessarily disclose all matters in the internal control over financial reporting that might be material weaknesses. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters that we consider to be material weaknesses. However, we noted other matters involving the internal control over financial reporting that we have reported to management of the Ohio State Highway Patrol Retirement System, in a separate letter dated March 26, 2003.

This report is intended solely for the information and use of the audit committee, management and Auditor of the State of Ohio and is not intended to be and should not be used by anyone other these specified parties.

*Clark, Schaefer, Hackett & Co.*

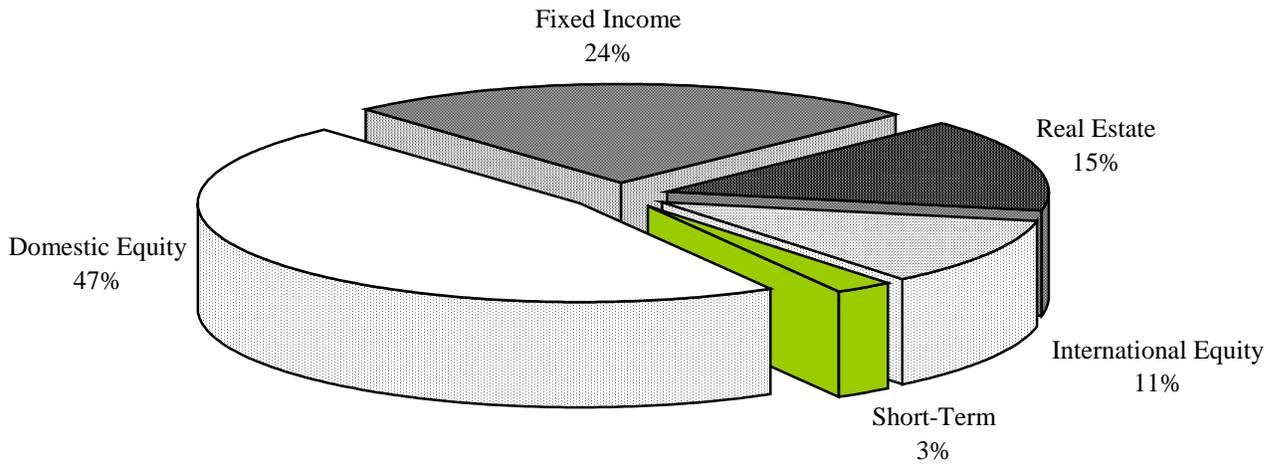
Columbus, Ohio  
March 26, 2003



# Investment Section

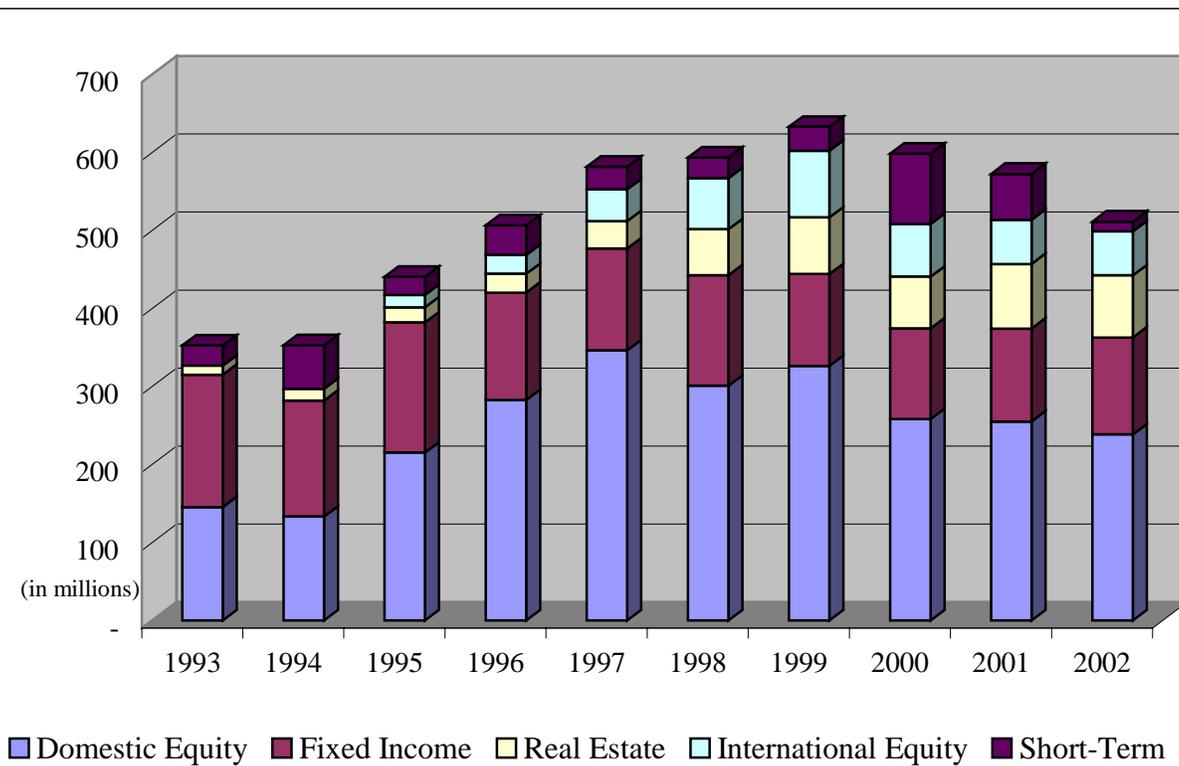
## Investment Distribution

at Fair Value, December 31, 2002



## Ten-Year Investment Comparison

at Fair Value, December 31, 2002



## Investment Review

Year Ending December 31, 2002

### General Market & Economic Conditions

The fourth quarter market rally that began on Oct. 9 wilted during the worst December on record going back to 1931, and was not enough to prevent the stock market from falling for a third consecutive year -- the first time since 1939-1941. In spite of this, all major indexes were still solidly in the black for the fourth quarter. The S&P 500 advanced 8.4%; the NASDAQ 14.1%; and MSCI EAFE 6.5%.

For 2002, the Dow declined 15.0% and the S&P 500 22.1%. The NASDAQ sank 31.3% this year -- its third worst performance since inception in 1971; and the first time it has tumbled three years in a row. Since the last time the NASDAQ ended in the black in 1999, the tech-laden index has lost about three-quarters of its value. Value again led Growth in 2002, as represented by the S&P 500 Barra Value (-20.9%) and S&P 500 Barra Growth (-23.6%). For the quarter, large companies (8.4%) outdid its smaller counterparts (4.9%), but not for the year, with the S&P 500 and S&P SmallCap 600 returning -22.1% and -14.6%, respectively.

The markets were mired this year in an endless cycle of corporate misdeeds and lingering doubts about an economic recovery, which all fell under a darker cloud of terrorist warnings and fears of war. Most fund sponsor organizations continued to look beyond these events in maintaining their long-term strategic allocations.

While the stock market sagged under the weight of all the news, the bond market benefited from it. The Lehman Aggregate Bond Index, a broad gauge of the fixed income market, returned double-digits (10.3%) in 2002, and 33.5% for the three-year period. The flight-to-quality by investors drove the fixed income market for most of the year. Treasuries were the safety blanket, gaining 11.8% for the year and long Treasuries (inflation-protected) doing even better, up 16.8%. Not since 1941 have bonds risen for three straight years (10.1% annualized), while stocks fell over the same period.

Looking abroad, geopolitical risks cast a pall onto the overseas markets. Despite being up for the fourth quarter (6.5%), the MSCI EAFE Index dropped

15.9% for the year. Developed European markets and Japan suffered, while there were surprising gains in a number of emerging markets. Americans who did invest overseas were helped by a weakened dollar. When the year closed, the euro reached its highest level (\$1.05) against the dollar in more than two years.

*Source: Callan Associates*

### Investment Operations

After a dreary investment year of 2001, the world was ready for an economic turnaround. Many market advisors were predicting upper single digit returns for the broad United State stock market. The year ended, however, on another dismal note. All of the domestic stock market indices were significantly negative. With the completion of the year 2002, this marks only the third time in U.S. history that we have had three negative years in a row. As in 2001, domestic productivity continues to expand and that is what is keeping inflation under control, but too many outside worries -- corporate accounting scandals, political uncertainty in major countries, etc. -- dragged the economy down.

The HPRS suffered another negative investment return year (-8.3%), but managed to produce the best return among the Ohio public plans and ranked well nationally with other similar plans. With that said, it's difficult to be comfortable with negative returns.

Callan Associates, the investment consultant to HPRS, completed an asset allocation study in 2001, and in 2002 completed a structure analysis. The asset allocation study recommends where the money should be invested and the structure analysis recommends with whom the money should be invested. Overall, the Callan structure analysis determined that the current managers were well positioned. We eliminated a small holding in the NASDAQ 100 -- a technology laden index fund. We determined that the bond portfolio needed to be held by 2 managers instead of 1 to reduce risk. We determined that the small/mid capitalization growth portfolio should be in the hands of an active manager rather than in an index fund. The changes were made

and investment returns improved in the last quarter of the year.

Typically, market analysts are eager to predict future growth and returns, but after 3 years of missing the mark by a wide margin the comments these days are very conservative. Most nationally respected analysts are calling for mid single digit returns for stocks for the next 3 years or in other words about the same return as the bond market traditionally yields. Factoring these estimates into the HPRS portfolio it will produce several lean years in which breaking even

may be the only reasonable expectation. Certainly, benefit enhancements will be on hold for some time to come.

Recognizing that cash flow was important, in 2002, the Board implemented a new brokerage process that involves contractual arrangements with brokerage firms and results in significant discounts. This program is expected to yield significant savings.

*Summary by Richard A. Curtis, Executive Director*

## Schedule of Investment Results

Year Ending December 31, 2002

	<u>2002</u>	<u>2001</u>	<u>3-Year</u>	<u>5-Year</u>
<b>Domestic Equity</b>	<b>(18.77%)</b>	<b>(8.75%)</b>	<b>(11.47%)</b>	<b>(6.60%)</b>
Standard & Poors 500 (large cap)	(22.10)	(11.89)	(14.55)	(0.59)
Russell 2500 (small/mid cap)	(17.80)	1.22	(4.62)	1.57
<b>International Equity</b>	<b>(16.66)</b>	<b>(16.34)</b>	<b>(13.56)</b>	<b>(0.53)</b>
MSCI EAFE Index	(15.94)	(21.44)	(17.24)	(2.89)
<b>Fixed Income</b>	<b>10.55</b>	<b>8.28</b>	<b>10.02</b>	<b>7.72</b>
Lehman Brothers Aggregate	10.26	8.43	10.10	7.55
<b>Real Estate</b>	<b>6.35</b>	<b>8.26</b>	<b>11.12</b>	<b>8.40</b>
NCREIF Classic Index	4.78	7.28	8.23	10.76
<b>Domestic Short Term</b>	<b>2.50</b>	<b>4.67</b>	<b>4.27</b>	<b>4.55</b>
<b>Total Fund</b>	<b>(8.36)</b>	<b>(3.24)</b>	<b>(3.82)</b>	<b>(0.36)</b>
Absolute Objective	8.00	8.00	7.92	7.85
Relative/Composite Benchmark ►	(11.58)	(3.80)	(5.98)	2.52

► Relative/Composite Benchmark: 40% S&P 500, 20% Russell 2500, 20% L/B Aggregate, 10% MSCI EAFE and 10% NCREIF Index.

All returns are reported gross of fees, using time-weighted annualized rates of return, in accordance with the Association for Investment Management and Research (AIMR) standards.

*Source: Callan Associates*

## Investment Summary

December 31, 2002

<u>Portfolio Type</u>	<u>Fair Value</u>	<u>% of Total Fair Value</u>	<u>Policy %</u>
Domestic Equity	\$238,362,368	46.6	48.0
Fixed Income	124,550,759	24.4	25.0
Real Estate	79,223,405	15.5	12.0
International Equity	56,327,969	11.0	15.0
Short-Term	12,793,719	2.5	0.0
Total	<u>\$511,258,220</u>	<u>100.0</u>	<u>100.0</u>

## Largest Equity Holdings (by Fair Value)

December 31, 2002

<u>Rank</u>	<u>Shares</u>	<u>Description</u>	<u>Fair Value</u>
1.	86,300	Exxon Mobil Corp	\$3,015,322
2.	77,500	Verizon Communications	3,003,125
3.	74,700	Cooper Industries LTD, Class A	2,722,815
4.	109,900	Navistar International	2,671,669
5.	37,800	Bank of America Corp	2,629,746
6.	34,900	American Standard Co	2,482,786
7.	49,700	ConocoPhillips	2,404,983
8.	75,300	Prudential Financial Inc	2,390,022
9.	65,000	International Paper	2,273,050
10.	63,100	Citigroup Inc	2,220,489

## Largest Fixed-Income Holdings (by Fair Value)

December 31, 2002

<u>Rank</u>	<u>Par</u>	<u>Name</u>	<u>Coupon</u>	<u>Maturity</u>	<u>Rating</u>	<u>Fair Value</u>
1.	\$5,500,000	US Treasury B	6.50%	11/15/26	Aaa/AAA	\$6,694,545
2.	4,750,000	Bank United FSB MTN	5.40	02/02/04	AAA/Aaa	4,927,318
3.	3,340,000	US Treasury Bond	7.50	11/15/16	Aaa/AAA	4,368,085
4.	3,000,000	Federal Home Loan Bank	5.80	09/02/08	NR/Aaa	3,377,820
5.	3,000,000	Centex Home Equity 2001-A A4	6.47	07/25/29	AAA/Aaa	3,180,000
6.	2,500,000	FHLMC 1669-G	6.50	02/15/23	AAA/AAA	2,632,225
7.	2,500,000	FHLMC 1675-H	6.38	10/15/22	AAA/AAA	2,605,325
8.	2,300,000	FNMA 1993-141 PV	6.75	03/25/22	AAA/AAA	2,375,302
9.	2,000,000	Standard Credit CD MTR 1994-2A	7.25	04/07/08	AAA/AAA	2,269,800
10.	2,000,000	Citibank CC Issuance TR 01-A8	4.10	12/07/06	AAA/Aaa	2,081,600

## Investment Portfolio

December 31, 2002

### Fixed Income

<u>Par</u>	<u>Description</u>	<u>Rate</u>	<u>Maturity</u>	<u>Fair Value</u>
\$1,425,000	Cardinal Health Inc	675.000%	02/15/11	\$1,627,208
233,333	Chevron Trust Fund	811.000	12/01/04	247,973
1,115,000	Deutsche Bank Financial	670.000	12/13/06	1,234,417
1,500,000	Diageo Capital PLC	358.000	11/19/07	1,507,650
1,500,000	First Data Corp	0.000	11/01/06	1,571,955
1,000,000	FORD MOTOR CREDIT CORP MTN	903.000	12/30/09	1,062,370
995,000	General Motors Acceptance Corp	675.000	01/15/06	1,030,442
1,500,000	Household Finance Corp	640.000	06/17/08	1,599,510
1,000,000	Knight Ridder Inc	687.500	03/15/29	1,109,030
450,000	Landesbank Baden Wurttemberg	635.000	04/01/12	499,905
1,500,000	May Departement Stores Co	687.500	11/01/05	1,654,650
1,250,000	National City Bank of IN	400.000	09/28/07	1,280,638
1,600,000	Swiss Bank Corp NY	675.000	07/15/05	1,743,104
1,500,000	Texaco Capital Inc	600.000	06/15/05	1,641,120
1,500,000	Unionbancal Corp	575.000	12/01/06	1,600,395
1,200,000	US Bank NA MN	637.500	08/01/11	1,345,860
450,000	USA Education Inc	0.000	04/10/07	489,414
<b>\$19,718,333</b>	<b>Total Corporate Bonds</b>			<b>\$21,245,641</b>
\$174,300	CIT RV 1996-AA ABS	540.000%	12/15/11	\$176,793
800,000	Fed Home Loan Mrtg Corp 1617PJ	620.000	01/15/23	850,848
1,000,000	FHLMC Pool 2091-PD	600.000	04/15/21	1,024,710
1,423,074	FHLMC 1531-M	600.000	06/15/08	1,517,182
1,417,244	FHLMC 1552-GB	650.000	12/15/21	1,441,833
1,267,440	FHLMC 1574-PG	650.000	02/15/21	1,295,235
1,336,639	FHLMC 1602-PO	650.000	04/15/22	1,376,872
2,500,000	FHLMC 1669-G	650.000	02/15/23	2,632,225
2,500,000	FHLMC 1675-H	637.500	10/15/22	2,605,325
890,000	FHLMC 2123-PE	600.000	12/15/27	936,609
1,500,000	FHLMC 2421-PN	500.000	09/15/20	1,538,670
1,500,000	FHLMC Struct T-53 A4	377.600	10/15/09	1,500,000
1,240,000	First Union Ntl Bank 1999-C4 A	739.000	12/15/31	1,454,396
2,300,000	FNMA 1993-141 PV	675.000	03/25/22	2,375,302
2,000,000	FNMA 1993-149K	650.000	08/25/23	2,071,040
1,475,000	FNMA 1993-208 J	625.000	02/25/23	1,567,527
499,969	FNMA 1993-223 VD	615.000	08/25/06	527,617
669,975	FNMA 1993-99PH	650.000	10/25/20	673,151
144,083	FNMA 1998-68 A	600.000	12/25/19	144,596
1,556,304	FNMA G94-7 PH PAC-1 (11)	750.000	02/17/23	1,611,568

**Fixed Income** (continued)

<u>Par</u>	<u>Description</u>	<u>Rate</u>	<u>Maturity</u>	<u>Fair Value</u>
\$1,500,000	FNMA Grantor Trust 2002-M2 C	471.700	08/25/12	\$1,512,330
815,042	GNMA 1996-9 PD	700.000	01/20/25	833,674
650,000	Govt National Mrg Assoc 02-9B	588.100	06/16/24	697,216
1,000,000	MLMI 1997-C1 A-3	712.000	06/18/29	1,123,600
<b>\$30,159,070</b>	<b>Total Collateralized Mortgages</b>			<b>\$31,488,319</b>
\$4,750,000	Bank United FSB MTN	540.000%	02/02/04	\$4,927,318
3,000,000	Federal Home Loan Bank	580.000	09/02/08	3,377,820
1,000,000	FHLB	0.000	05/15/12	1,118,130
825,000	FHLMC	625.000	07/15/32	934,568
1,500,000	FHLMC	625.000	03/05/12	1,646,715
5,500,000	U S Treasury B	650.000	11/15/26	6,694,545
3,340,000	U S Treasury Bnd	750.000	11/15/16	4,368,085
1,105,430	U S Treasury Inflation Index	387.500	01/15/09	1,232,212
<b>\$21,020,430</b>	<b>Total US Government Obligations</b>			<b>\$24,299,393</b>
\$642,865	FHLMC POOL #E00476	650.000%	03/01/12	\$681,649
197,479	FHLMC POOL#C00492	750.000%	01/01/27	211,089
201,677	FNMA Pool #525908	700.000%	12/01/29	212,309
184,211	FNMA Pool #535466	700.000%	08/01/30	193,814
786,943	FNMA Pool # 323406	599.200%	11/01/08	866,550
537,422	FNMA POOL #313708	750.000%	08/01/12	574,095
996,400	FNMA Pool #385278	611.000%	07/01/12	1,105,068
354,754	GNMA POOL #423876	750.000%	07/15/26	379,797
421,762	GNMA POOL #423906	750.000%	07/15/26	451,535
1,745,284	GNMA Pool #575876	650.000%	12/15/31	1,833,036
<b>\$6,068,797</b>	<b>Total Mortgage Pass-Through Securities</b>			<b>\$6,508,942</b>
\$1,427,162	AAMES MORTGAGE TRUST 97-CA6F	689.000%	11/15/27	\$1,511,935
1,500,000	Capital Auto Rec Asst Tr 02-3	358.000	10/16/06	1,548,075
3,000,000	Centex Home Equity 2001-A A4	647.000	07/25/29	3,180,000
1,664,377	CHAMPION HME EQTY LN TRST 97-2	671.000	09/25/29	1,778,653
2,000,000	Citibank CC Issuance TR 01-A8	410.000	12/07/06	2,081,600
1,700,000	CPL Transition Fund LLC 2002-1	501.000	01/15/08	1,817,810
1,000,000	Discover CC Master TR 2001-2	604.300	07/15/08	1,002,700
800,000	Pacific Coast 1A-Class A	0.000	10/25/36	800,000
2,000,000	STANDARD CREDIT CD MTR 1994-2A	725.000	04/07/08	2,269,800
<b>\$15,091,539</b>	<b>Total Asset-Backed Securities</b>			<b>\$15,990,573</b>
<b>\$92,058,172</b>	<b>Total Fixed Income</b>			<b>\$99,532,868</b>

## Domestic Equity

<u>Shares</u>	<u>Description</u>	<u>Fair Value</u>
36,200	AAR Corporation	\$186,430
9,700	Abbott Laboratories	388,000
43,000	Abercrombie Fitch	879,780
20,300	Activision Inc	296,177
6,800	Actrade International	17,136
15,700	Adaptec Inc	88,705
11,900	Adobe Systems Inc	295,132
171,600	Advanced Micro Devices	1,108,536
22,500	Advanta Corp Class B	211,275
11,200	Air Products & Chemicals Inc	478,800
8,400	Alaska Communications Systems	15,456
89,400	Alcoa Inc	2,036,532
20,000	Alexander & Baldwin Inc	515,800
800	Allergan Inc	46,096
44,500	Allstate	1,646,055
31,200	Alltel Corp	1,591,200
2,500	Altera Corp	30,825
76,700	Amdocs LTD	753,194
300	American Express Co	10,605
10,900	American International Group	630,565
35,400	American Power Conversion	536,310
34,900	American Standard Co	2,482,786
61,700	AmeriCredit Corp	477,558
2,900	Amgen Inc	140,186
26,900	Anheuser Busch Co Inc	1,301,960
19,000	Anworth Mrtg Asset Corp	238,830
7,900	Apollo Group Inc	347,600
92,300	Apple Computer Inc	1,322,659
1,900	Applied Biosystems Group/Applera	33,326
31,700	Applied Materials Inc	413,051
28,600	Arch Chemicals Inc	521,950
35,200	Arvinmeritor Inc	586,784
11,200	Asyst Technology Corp	82,320
29,900	Atmel Corp	66,677
8,400	AutoZone Inc	593,460
100	Avery Dennison Corp	6,108
22,700	Avista Corp	262,412
17,600	Avon Products Inc	948,112
50,500	Aztar Corp	721,140
17,200	Ball Corp	880,468
37,800	Bank of America Corp	2,629,746
14,100	Bank of Hawaii Corp	428,499
11,700	Barr Laboratories Inc	761,553
11,100	Baxter International Inc	310,800
13,400	Becton Dickinson & Co	411,246
100	Bed Bath & Beyond Inc	3,453
38,900	Bellsouth Corp	1,006,343
7,500	Best Buy Inc	181,125
5,700	Biomet Inc	163,362
14,500	BJ Services	468,495
20,200	BJ's Wholesale Club Inc Co	369,660
5,000	Blockbuster Inc	61,250
11,700	Borg Warner Automotive	589,914
16,500	Boston Scientific Corp	701,580
39,900	Bristol Myers Squibb Co	923,685

**Domestic Equity (continued)**

<u>Shares</u>	<u>Description</u>	<u>Fair Value</u>
9,800	BroadWing Inc	\$34,496
35,000	Brocade Communications	144,900
3,900	Brooks-PRI Automation, Inc	44,694
2,900	Brown Forman Corp Class B	189,544
70,100	Burlington Northern Santa Fe	1,823,301
14,440	Cablevision Systems Corp A	241,726
8,400	Cadence Design System Inc	99,036
4,000	Cameco Corp	95,800
24,300	Campbell Soup Co	570,321
10,000	Capital Automotive REIT Inc	237,000
500	Cardinal Health Inc	29,595
28,600	CenturyTel Inc	840,268
27,000	ChevronTexaco Corp	1,794,960
4,600	Chiron Corp	172,960
14,900	Chubb Corp	777,780
7,195	Cimarex	128,791
56,500	Cisco Systems Inc	740,150
63,100	Citigroup Inc	2,220,489
9,900	Citizens Communications Co	104,445
81,000	Citrix Systems Inc	997,920
55,600	Clayton Homes Inc	677,208
4,500	Clorox Co	185,625
4,200	CMS Energy Corp	39,648
13,100	CNF Inc	435,444
13,100	Coca Cola Co	574,304
3,300	Colgate Palmolive Co	173,019
13,400	Commercial Federal Corp	312,890
36,500	Computer Sciences Corp	1,257,425
5,500	Concord EFS Inc	86,570
49,700	ConocoPhillips	2,404,983
74,700	Cooper Industries LTD, Class A	2,722,815
26,000	Corrections Corp of Am	445,900
5,600	Corus Bankshares Inc	244,496
19,640	Cox Communications Inc	557,776
25,000	Crane Co	498,250
4,700	Crown Media Holdings Inc	10,622
18,400	Cummins Inc	517,592
3,200	CV Therapeutics Inc	58,304
56,900	CVS Corp	1,420,793
54,800	Del Monte Foods Inc	421,960
2,900	Dell Computer Corp	77,546
115,100	Delphi Automotive Systems	926,555
18,300	Delta & Pine LD Co	373,503
4,000	Deluxe Corp	168,400
1	Deutsche Telekom AG	13
6,200	Devon Energy Corp	284,580
15,700	Dollar General Corp	187,615
42,500	Donnelley, R R & Sons Co	925,225
13,900	DTE Energy Company	644,960
59,300	Dycom Industries Inc	785,725
159,100	E*TRADE GROUP, INC	773,226
3,400	EBay	230,588
24,100	El Paso Electric Co	265,100
1,500	Electronic Arts Inc	74,655
33,700	Electronics for Image	547,996
45,500	EMC Corp	279,370
3,900	Emerson Electric Co	198,315

**Domestic Equity** (continued)

<u>Shares</u>	<u>Description</u>	<u>Fair Value</u>
10,000	Emmis Communications Corp	\$208,300
8,400	Energen Corp	244,440
66,167	Energy East Corp	1,461,629
200	Equifax Inc	4,628
15,400	Everest RE Group LTD	851,620
86,300	Exxon Mobil Corp	3,015,322
300	Family Dollar Stores Inc	9,363
20,960	FBR Asset Investment Corp	710,544
10,500	Federal National Mortgage Assoc	675,465
3,000	Fifth Third Bancorp	175,650
32,800	FirstEnergy Corp	1,081,416
400	Fiserv Inc	13,580
30,300	Fleet Boston Financial Corp	736,290
3,150	Flushing Financial Corp	51,591
1,800	Forest Labs Inc	176,796
33,500	Foundry Networks Inc	235,840
9,400	Freeport-McMoRan Copper & Gold	157,732
25,100	Fuller, H. B. Co	649,588
18,200	Gap Inc	282,464
9,600	Gateway Inc	30,144
226,300	Gemstar-TV Guide Intl Inc	735,475
60,100	General Electric Co	1,463,435
22,700	General Mills Inc	1,065,765
22,600	General Motors Corp	833,036
4,100	Genta Inc	31,529
7,300	Gilead Sciences Inc	248,200
23,600	Gillette Co	716,496
24,300	Goldman Sachs Group Inc	1,654,830
19,100	Guidant Corp	589,235
14,400	H & R Block Inc	578,880
13,000	Harsco Corp	414,570
44,400	Hartford Financial Svcs	2,017,092
46,000	Hasbro Inc	531,300
10,100	HCA Inc	419,150
26,300	Heinz, H J Company	864,481
22,000	Helmerich & Payne	614,020
9,700	Hershey Foods Corp	654,168
6,800	Hibernia Corp	130,968
19,000	Hollinger International Inc Class A	193,040
49,100	Host Marriott Corp	434,535
3,200	Human Genome Sciences Inc	28,192
46,700	Humana Inc	467,000
33,700	Hunt (J B) Transport Svcs Inc	987,410
109,200	IMC Global Inc	1,165,164
1,200	IMS Health	19,200
31,800	Insight Communications Co	393,684
36,900	Intel Corp	574,533
18,600	International Business Machine	1,441,500
5,800	International Flavors & Fragrances	203,580
900	International Game Technology	68,328
65,000	International Paper	2,273,050
2,100	Intuit	98,532
21,000	ITLA Capital Corp	697,830
22,500	Jack in the Box Inc	389,025
19,600	Johnson & Johnson	1,052,716
9,400	Jones Apparel Group Inc	333,136
46,000	Juniper Networks	312,800

### Domestic Equity (continued)

<u>Shares</u>	<u>Description</u>	<u>Fair Value</u>
27,000	Keane Inc	\$242,730
30,200	Kellogg Co	1,034,954
7,100	Kerr-McGee Corp	314,530
22,000	Key Energy Group Inc	197,340
13,600	Kimberly Clark Corp	645,592
9,900	KLA Tencor Corp	350,163
9,400	Knight-Ridder Inc	594,550
26,900	Kraft Food Inc	1,047,217
86,600	Kroger	1,337,970
125,000	La Quinta Corp	550,000
9,000	Lafarge North America Inc	295,650
5,800	LAM RESEARCH CORP	62,640
5,900	Lancaster Colony Corp	230,572
6,900	Lee Enterprises Inc	231,288
3,700	Lexmark Holdings Inc	223,850
16,328	Liberty Media Corp Class A	145,972
14,200	Lilly, Eli & Co	901,700
19,000	Linear Technology Corp	488,680
27,000	Local Financial Corp	395,550
8,000	Lodgenet Entertainment	85,440
29,900	Lone Star Steakhouse	578,266
1,000	Lowe's Companies Inc	37,500
1,500	Markel Holdings	308,250
21,000	Martin Marietta Materials Inc	643,860
17,700	Mattel Inc	338,955
15,100	Maxim Integrated Products Inc	498,904
47,800	McDonalds	768,624
21,800	MCG Capital Corp	234,786
3,400	McGraw Hill Cos Inc	205,496
88,650	MeadWestvaco Corp	2,190,542
1,500	Media General Class A	89,925
54,400	Mediacom Communications	479,264
100	Medimmune Inc	2,717
15,000	Medtronic Inc	684,000
20,500	Merck & Co Inc	1,160,505
7,000	Mercury General Corp	263,060
3,600	Mercury Interactive Corp	106,740
9,300	Meredith Corp	382,323
36,800	Merrill Lynch	1,396,560
53,680	Mesaba Holdings Inc	328,522
22,340	Metris Companies Inc	55,180
42,000	Microsoft Corp	2,171,400
10,292	Millennium Pharmaceuticals	81,718
700	Millipore Corp	23,800
15,300	Moody's Corp	631,737
12,400	Morgan Stanley Dean Witter & Co	495,008
178,400	Motorola Inc	1,543,160
17,800	Murphy Oil Corp	762,730
17,900	NACCO INC	783,483
109,900	Navistar International	2,671,669
24,100	NCI Building Systems Inc	525,862
9,674	NetBank Inc	93,644
13,700	Network Appliance Inc	137,000
2,900	New York Times Class A	132,617
5,500	Newell Rubbermaid Inc	166,815
37,700	Nextel Communications Inc	435,435
12,600	North Fork Bancorp	425,124

**Domestic Equity** (continued)

<u>Shares</u>	<u>Description</u>	<u>Fair Value</u>
4,400	NOVELLUS SYSTEMS	\$123,552
9,600	NSTAR Inc	426,144
1,090	NVR Inc	355,885
15,800	Ocean Energy Inc	315,526
64,900	Office Max	324,500
500	Omnicom Group Inc	32,300
27,000	Oracle Corp	291,600
1,900	PACTIV Corp	41,534
6,400	Pall Corporation	106,752
10,900	Park Place Entertainment Corp	91,560
10,900	Paxar Corp	160,775
7,100	Penton Media	4,828
6,800	Pepsi Bottling Group Inc	174,760
28,200	Pepsico Inc	1,190,604
53,400	Pfizer Inc	1,632,438
3,800	Pharmacia Corp	158,840
17,200	Phelps Dodge Inc	544,380
17,900	Philip Morris Co Inc	725,487
4,300	Pitney Bowes Inc	140,438
29,500	PNC Financial Services Group	1,236,050
15,800	PPL Corporation	547,944
1,400	Praxair Inc	80,878
5,200	PRECISION CAST PARTS	126,100
14,200	Procter & Gamble Co	1,220,348
2,000	Progressive Corp	99,260
75,300	Prudential Financial Inc	2,390,022
14,000	Public Storage Inc	452,340
3,019	Pulte Homes Inc	144,520
7,300	Qlogic Corp	251,923
9,500	Qualcomm Inc	345,705
6,900	R H Donnelley Corp	202,239
1,900	RadioShack Corp	35,606
20,000	RAIT Investment Trust	432,000
52,800	Raytheon Co	1,623,600
38,800	RenaissanceRE Holdings LTD	1,536,480
25,200	Rent-A-Center Inc	1,258,740
4,900	RF Micro Devices Inc	35,917
11,500	RLI Corp	320,850
16,900	Rockwell Collins	393,094
3,800	ROLLINS INC	96,710
2,666	Roxio Inc	12,717
7,200	RTI International Metals	72,720
38,400	Safeway Inc	897,024
34,000	Sara Lee Corp	765,340
67,400	SBC Communications	1,827,214
1,000	Schering Plough Corp	22,200
32,700	Schwab (Charles) Corp	354,795
13,800	Sherwin Williams	389,850
3,100	Sigma Aldrich Corp	150,970
5,500	SLM Corporation	571,230
99,100	Smurfit Stone Container Corp	1,525,248
37,900	Sovereign Bancorp Inc	532,495
31,000	Spherion Inc	207,700
20,600	Spinnaker Exploration Co	454,230
900	St Jude Medical Inc	35,748
9,600	Starbucks Corp	195,648
1,600	Stryker Corp	107,392

**Domestic Equity** (continued)

<u>Shares</u>	<u>Description</u>	<u>Fair Value</u>
31,600	Sunoco Inc	\$1,048,488
63,100	Supervalu Inc	1,041,781
24,900	Swift Transportation Co Inc	498,448
14,100	Sycamore Networks Inc	40,749
7,700	Symantec Corp	311,927
13,251	Synopsys Inc	611,534
5,300	Sysco Corp	157,887
12,200	Telephone & Data Systems Inc	573,644
29,900	Temple Inland	1,339,819
8,800	Tidewater Inc	273,680
70,100	Tommy Hilfiger Corp	487,195
21,400	Torchmark Corp	781,742
41,365	Travelers Property Casualty	605,997
13,000	Trinity Industries Inc	246,480
12,400	TriQuint Semiconductor	52,576
5,800	U S Cellular Corp	145,116
18,900	U S Freightways Corp	543,375
18,000	Unifi Inc	94,500
9,000	United Global Com Inc	21,600
8,900	United Health Group Inc	743,150
61,600	United Online Inc	981,966
15,700	United Parcel Service Class B	990,356
45,000	United States Steel Corp	590,400
1,300	Univision Communicaitons Inc	31,850
51,800	Unocal	1,584,044
20,900	UST Inc	698,687
11,400	Valero Energy Corp	421,116
4,400	Valspar Corp	194,392
16,500	VERITAS Software Co	257,730
77,500	Verizon Communications	3,003,125
39,700	Vishay Intertechnology Inc	443,846
4,200	Walgreen Co	122,598
25,100	Wal-Mart Stores Inc	1,267,801
32,850	Washington Federal Inc	816,323
54,200	Washington Mutual Savings	1,871,526
200	Waters Corp	4,356
73,900	Watson Pharmaceuticals Inc	2,089,153
8,800	WebMD Corp	75,240
12,400	Western Wireless	65,720
2,400	Whirlpool Corp	125,328
13,000	Wrigley, Wm Jr Co	713,440
3,400	Wyeth	127,160
26,700	Xilinx Inc	550,020
20,800	Xoma LTD	87,984
20,000	Yahoo Inc	327,000
2,300	Young Broadcasting Inc Class A	30,291
26,600	Yum Brands Inc	644,252
10,800	Zale Corp	344,520
12,500	Zimmer Holdings Inc	519,000
<u>8,101,358</u>	Total	<u>\$186,351,397</u>

## Summary Schedule of Investment Manager Fees

Year Ending December 31, 2002

<u>Manager</u>	<u>Assets Managed, 12/31/02</u>	<u>Fees</u>
Bank of Ireland Asset Management	30,825,261	\$219,639
Brandywine Asset Management	42,151,227	265,742
Eubel, Brady & Suttman	11,560,335	56,855
Fidelity Management Trust Company	26,453,151	230,278
Fifth Third/Maxus Investment Group	--	6,946
HPRS Internal Staff (real estate)	8,588,067	--
INTECH	39,382,686	25,223
JPMorgan Fleming Asset Management	25,502,708	6,282
MacKay-Shields Financial Corporation	77,923,799	327,797
Metropolitan Life Insurance Company	24,692,760	258,652
Munder Capital Management	99,532,868	155,000
Oak Associates	8,530,175	32,796
Pinnacle Associates LTD.	6,803,172	44,584
State Street Global Advisors	29,695,738	11,684
TimberVest	19,489,427	142,743
Western Asset	25,017,891	2,261
World Asset Management	22,315,236	15,971
Total	<u>\$498,464,501</u>	<u>\$1,802,453</u>

## Summary Schedule of Broker Fees

Year Ending December 31, 2002

<u>Broker</u>	<u>Fees</u>	<u>Shares</u>	<u>Average</u>
Abel Noser	\$17,885	927,833	\$0.019
Bank of New York	13,117	1,340,725	0.010
BNY ESI & Co	1,620	108,000	0.015
B-Trade Services	26	1,700	0.015
Cantor Fitzgerald	687	16,300	0.042
Capital Institutional Services	56,280	3,783,986	0.015
CS First Boston	235	7,900	0.030
Donaldson & Co	2,092	139,440	0.015
Goldman Sachs	2,819	140,208	0.020
Guzman & Co	1,756	87,800	0.020
Herzog, Heine, Geduld	162	200,168	0.001
Instinet	4,841	242,045	0.020
Lehman Brothers	649	32,800	0.020
Lynch, Jones, Ryan	7,727	245,100	0.032
Merrill Lynch	230	8,588	0.027
Mogavero Incorp	72	3,600	0.020
Morgan Stanley	1,318	48,100	0.027
Needham & Co	70	5,700	0.012
Oppenheimer Corp	90	1,800	0.050
Prudential Securities	1,152	84,500	0.014
Raymond James	357	16,400	0.022
Richard Rosenblatt	972	50,400	0.019
Rochdale Securities Co	150	3,000	0.050
Salomon Smith Barney	73,890	3,389,556	0.022
Sanford C. Bernstein & Co. Inc	55	1,100	0.050
SG Cowen Securities Corp	6,815	138,368	0.049
State Street Brokerage Services	308	18,100	0.017
Stephens Inc	175	3,500	0.050
UBS Warburg	528	33,900	0.016
Weeden & Co	105	2,100	0.050
Total	<u>\$196,183</u>	<u>11,082,717</u>	

# Investment Objectives, Policies, and Guidelines

## Objectives

1. The purpose of this Investment Policy statement is to comply with the directive of Ohio Revised Code Section 5505.06, wherein the Board of Trustees is to adopt public "policies, objectives or criteria for the operation of the investment program." As such, this statement is intended to provide general guidelines within which the Board may take full advantage of its investment authority pursuant to ORC Section 5505.06, while complying with its fiduciary responsibility. This statement is not intended to restrict the Board from consideration of all lawful and legal investment opportunities.
2. The primary objective of the Highway Patrol Retirement System is to provide eligible employees with scheduled pension benefits. Although the fund is not governed by the Employees Retirement Income Security Act of 1974 (ERISA), the basic provisions contained in that Act are recognized and will serve as guidance to the management of this fund. In particular, the *prudent person* guidelines are to be followed with regard to the investment management of the fund. These guidelines require that the Board and other system fiduciaries exercise the care, skill, prudence, and diligence -- under the circumstances then prevailing -- that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character with like aims.
3. A secondary objective of the fund is to maintain a sufficient degree of liquidity in order to meet unanticipated demands and changing environments.
4. Consistent with prudent standards for preservation of capital and maintenance of liquidity, the goal of the fund is to earn the highest possible rate of return consistent with the fund's tolerance for risk as determined periodically by the Board in its role as a fiduciary. This objective should ensure adequate funds to meet scheduled benefits while maintaining level contributions.
5. In meeting these objectives, the Board will give consideration to investments that enhance the welfare of the State of Ohio, and Ohio citizens, where such investments offer safety and quality of return comparable to other investments currently available. Equal consideration will be given to

investments otherwise qualifying under this section that involve minority-owned and controlled firms, or firms owned and controlled by women, either alone or in joint venture with other firms.

6. The fund will be operated within the direction of Ohio Revised Code Section 5505.06.

## Policies

1. Diversification of assets will ensure that adverse or unexpected results from a security class will not have a detrimental impact on the entire portfolio. Diversification is interpreted to include diversification by asset type, performance and risk characteristic, number of investments, and by investment style of management organizations.

These guidelines may be implemented through specific directions or instructions to investment managers, and those directions or instructions may contain other more specific restrictions on diversification of assets by percentage holdings, by quality, or other factors.

2. Asset classes and ranges considered appropriate for investment of fund assets are to be determined by the Board in accordance with these investment guidelines.
3. Assignment of responsibilities for each asset category (components of each asset category) may be assigned to one or more management firms that may be "specialty" managers (i.e., managing only one type of asset class).

## Investment Guidelines for Specific Asset Classes

In order to achieve the return objectives, the fund will employ the following investment strategies:

1. U.S. equities will represent from 43 to 53 percent of the market value of total fund assets with a targeted average of 48 percent. The term "equities" includes common stock, convertible bonds, and convertible stock.
2. Non-U.S. equities will represent from 10 to 20 percent of the market value of total fund assets with a targeted average of 15 percent.

3. Real estate may represent 7 to 17 percent of total fund assets with a targeted average of 12 percent.
4. U.S. fixed income obligations, including cash, will represent from 20 to 30 percent of the market value of total fund assets with a targeted average of 25 percent. Intermediate-term bonds may include contractual payments, preferred stocks, and bonds with a maturity date greater than one year and less than or equal to ten years. Long-term bonds have a maturity date greater than ten years.

### Asset Allocation

As the result of an asset allocation study, the following was adopted as part of the system's overall Investment Policy in November 2001:

#### 1. Short-Term Investments.

When investing cash balances in order to provide effective cash management, emphasis will be placed on the protection of principal through the purchase of high-quality money market instruments, including money market open-end mutual funds, while attempting to achieve the highest available return.

The investment staff may invest cash balances in commercial paper, obligations of the U.S. Treasury, federal agencies, government-sponsored corporations, and government-backed repurchase agreements. Qualifying commercial paper must be issued by U.S. corporations, and must be rated Prime-1 by Moody's Investor Service, A-1 by Standard and Poor's Corporation, or Duff-1 by Duff and Phelps Investment Management Company, with the parent company's long-term debt being rated within the three highest classifications by Moody's, Standard and Poor's, or Duff and Phelps Investment Management Company. All commercial paper purchased will mature in ninety-five days or less, and at no time will the total amount of commercial paper outstanding exceed five percent of the total value of all funds at cost. All instruments of the U.S. government, federal agencies, or government-sponsored corporations will mature in two years or less from the date of purchase.

#### 2. Fixed Income Investments.

The bond portfolio will be diversified as to type of security, issuer, coupon, and maturity. Qualifying bonds, at the time of purchase, must be rated within the three highest classifications by at least two of the rating services (Standard and Poor's Corporation, Moody's Investor Service, and Duff and Phelps Investment Management Company). Generally, the average maturity of the fixed income portfolio will be ten years or less, although individual securities may be longer.

No more than ten percent of the fixed income portfolio is to be invested in the securities of any one issuer, and no more than five percent in any one issue, with the exception of U.S. government securities. Diversification of the bond portfolio will be accomplished by investing in U.S. government bonds and U.S. agency bonds, and/or domestic corporate bonds.

#### 3. Equities.

Equities may include common stock, preferred stock, and securities convertible into common stock. Equities must comply with the *prudent person* standard.

#### 4. Real Estate.

Real estate and related securities permitted under Ohio Revised Code Section 5505.06 include improved or unimproved real property, mortgage collective investment funds (Real Estate Investment Trusts or Real Estate Funds), notes secured by real property, mortgage-backed bonds, and pass-through securities backed by mortgages.

The real estate portfolio will be constructed and managed to

- provide sufficient diversity to protect against adverse conditions in any single market sector,
- provide diversity among geographical locations, property types, and property sizes,
- provide relatively stable returns consistent with the overall U.S. commercial real estate market,

- provide a strong current income stream with the potential for long-term principal growth,
- primarily contain fully developed, fully leased properties, and
- minimize the use of debt financing.

#### 5. International Securities.

Pursuant to Ohio Revised Code Section 5505.06, both equity and fixed international securities are permitted investments. The fund may invest in fixed income securities issued by (1) sovereign governments or (2) rated corporations that are in investment classes similar to the top three domestic investment classes.

### Performance

Comparative performance measurement of the total fund and its components will be conducted quarterly to insure that fund managers are providing added value to the general market values. Total equity returns are expected to exceed the S&P 500 benchmark (generally accepted as the "market") by 1% annually over a market cycle (generally three to five years). In addition, equity managers will be expected to exceed the median of their peer group as measured by style and capitalization. Small/mid capitalization managers are expected to exceed the Russell 2500 benchmark or some comparable benchmark by 1% annually over a market cycle. Fixed income returns are expected to exceed their individual benchmark, such as the Lehman Government Corporate or Lehman Aggregate for long duration managers, and Lehman Intermediate Government Corporate for intermediate duration managers, or short benchmarks as appropriate.

International managers will be measured against suitable international benchmarks such as EAFE (Europe, Australia, and the Far East). Real estate managers will be compared to suitable real estate benchmarks such as the NCREIF.

Over a market cycle, the total fund return is expected to exceed the following benchmarks:

- A minimum return target of 8 percent, representing the fund's actuarial assumption, and also representing the long-term inflation rate of 3 percent plus a risk premium of 5 percent.
- A composite reference fund comprised of 40 percent S&P 500 Index, 20 percent Russell 2500 Index, 20 percent Lehman Brothers Aggregate Index, 10 percent MSCI EAFE Index, and 10 percent NCREIF Classic Index. Results of each asset class will also be compared to the relevant market index.

### Investment Responsibilities

The Board recognizes that its role is supervisory, and that discretion is delegated to the investment managers who must adhere to the general guidelines established by the Board. The primary role of the Board is to

- establish performance goals,
- identify and review appropriate investment policy and guidelines,
- retain outside investment and actuarial counsel, and
- review the results of the fund on a regular basis, and implement changes in the investment policies, objectives, asset allocation, and investment managers as needed.

### Annual Review

In light of rapid changes in the capital markets and in investment management techniques, these guidelines will be reviewed by the Board on an annual basis. Changes and exceptions to these guidelines may be made at any time with the approval of the Board.

Revised, November 15, 2001

Revised, June 22, 1999

Revised, March 13, 1997

Adopted and approved, September 7, 1994

Revised, June 29, 1994

Revised, September 5, 1990

Revised, June 1, 1988

Adopted and approved, June 11, 1986



# **Actuarial Section**



**GABRIEL, ROEDER, SMITH & COMPANY**  
Consultants & Actuaries

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One Towne Square ● Suite 800 ● Southfield, Michigan 48076 ● 248-799-9000 ● 800-521-0498 ● fax 248-799-9020

May 28, 2003

The Retirement Board  
Ohio State Highway Patrol  
Retirement System  
6161 Busch Boulevard, Suite 119  
Columbus, Ohio 43229

Dear Board Members:

The basic financial objective of the Highway Patrol Retirement System (HPRS) is to establish and receive contributions which:

- when expressed in terms of percents of active member payroll will remain approximately level from generation to generation, and
- when combined with present assets and future investment return will be sufficient to meet the financial obligations of HPRS to present and future retirees and beneficiaries.

The financial objective is addressed within the annual actuarial valuation. The valuation process develops contribution rates that are sufficient to fund the plan's current cost (i.e. the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund unfunded actuarial accrued liabilities as a level percent of active member payroll over a finite period. The most recent valuations were completed based upon population data, asset data, and plan provisions as of December 31, 2001.

The plan administrative staff provides the actuary with data for the actuarial valuation. The actuary relies on the data after reviewing it for internal and year to year consistency. The actuary summarizes and tabulates population data in order to analyze longer term trends. The plan's external auditor also audits the actuarial data annually.

The actuary prepared the following supporting schedules for the Comprehensive Annual Financial Report:

Actuarial Section

Summary of Assumptions

Funding Method, Asset Valuation Method, Interest Rate

Payroll Growth

Probabilities of Age & Service Retirement

Probabilities of Separation from Active Employment Before Age & Service Retirement

Health Care and Medicare

Short-Term Solvency Test  
Recent Experience in the Health Care Fund  
Membership Data  
Analysis of Financial Experience  
Supplementary Schedules  
Schedule of Funding Progress  
Schedule of Employer Contributions  
Notes to Trend Data

Assets are valued on a market related basis that recognizes each year's difference between actual and assumed investment return over a closed four year period.

Actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rates of investment return and payroll growth, eligibility for the various classes of benefits, and longevity among retired lives. These assumptions are adopted by the Board after considering the advice of the actuary and other professionals. The assumptions and the methods comply with the requirements of Statement 25 of the Governmental Accounting Standards Board. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed. The assumptions used in the December 31, 2001 valuation were based upon a study of experience during the years 1995-99.

Pension experience was unfavorable during 2001. On a market value basis, investment return was disappointing for HPRS as it was for most other retirement funds across the nation. The actuarial method for recognizing asset gains and losses recognized \$65 million dollars in investment loss this year. The actuarial value of assets now exceeds the market value by \$69 million. Unless the investment markets turn around, the unrecognized \$69 million loss will affect results in future years. Experience in the Retiree Health Plan continues to be cause for concern. Rapidly escalating health care costs, coupled with successive years of disappointing investment results are likely to lead to further restructuring of the plan.

Based upon the results of the December 31, 2001 valuations, we are pleased to report to the Board that the Highway Patrol Retirement System of Ohio is meeting its basic financial objective and continues in sound condition in accordance with actuarial principles of level percent of payroll financing.

Respectfully submitted,

**GABRIEL, ROEDER, SMITH & COMPANY**



Brian B. Murphy, F.S.A., M.A.A.A.



Mita D. Drazilov, A.S.A., M.A.A.A.

BBM:mdd:lr

**GABRIEL, ROEDER, SMITH & COMPANY**

## Summary of Assumptions

After consulting with the actuary, these assumptions have been adopted by the Highway Patrol Retirement System Board of Trustees, effective January 1, 2001.

**Funding Method.** An entry age normal actuarial cost method of valuation is used in determining liabilities and normal cost. Differences between assumed and actual experience (i.e., actuarial gains and losses) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal and interest), which are level percent of payroll contributions.

**Asset Valuation Method.** The asset valuation method recognizes assumed investment income fully each year. Differences between actual and expected investment income are phased in over a closed four-year period.

**Interest Rate.** The investment return rate used in making valuations was 8.0% per year, compounded annually (net after administration expenses).

**Payroll Growth.** Base pay increases are assumed to be 4.5% annually, attributable to broad economic effects such as inflation and real wage growth. Additional merit and seniority increases are assumed as follows:

Service Years	Merit & Seniority	Base (Economic)	Total
0-4	3.7%	4.5%	8.2%
5-9	2.0	4.5	6.5
10-14	1.5	4.5	6.0
15 +	0.3	4.5	4.8

**Health Care.** Premiums are assumed to increase 4.5% annually. All retirants are assumed to receive a joint and survivor pension benefit. Medicare reimbursement is assumed to remain constant at \$54 per month.

**Medicare.** Benefit recipients were assumed to be eligible for Medicare at age 65.

### Other Assumptions.

Probabilities of Age & Service Retirement

*Percentage of Eligible Members  
Retiring Within Next Year*

Retirement Ages	Unreduced Benefit	Reduced Benefit
48	40%	2%
49	35	2
50	25	2
51	30	2
52	25	--
53	25	--
54	40	--
55 +	100	--

Post-Retirement mortality is based on the 1983 Group Annuity Mortality Male and Female Tables.

Rates of separation from active service before retirement are developed on the basis of actual plan experience.

Probabilities of Separation from Active Employment before Age & Service Retirement

*Percentage of Active Members Separating Within Next Year*

Sample Age	Disability	Death		
		Men	Women	Other
20	0.08%	0.02%	0.01%	2.57%
25	0.08	0.02	0.01	2.24
30	0.23	0.03	0.02	1.91
35	0.42	0.04	0.02	1.56
40	0.70	0.06	0.03	0.84
45	0.85	0.11	0.05	0.41
50	1.13	0.20	0.08	0.15
55	1.32	0.31	0.13	0.00

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

A short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the plan's present assets (cash and investments) are compared with (1) active member contributions on deposit, (2) the liabilities

for future benefits to present retired lives, and (3) the liabilities for service already rendered by active members. In a system that has been following the discipline of level percent financing, the liabilities for active member contributions on deposit (1) and the liabilities for future benefits to present retired lives (2) will be fully covered by present assets,

except in rare circumstances. In addition, the liabilities for service already rendered by active members will be partially covered by the remainder of present assets. Generally, if the system has been using level cost financing, the funded portion of column 3 will increase over time.

## Accrued Liabilities and Assets Allocated to Retirement, Survivor, and Disability Allowances

Year	(1)	(2)	(3)	Valuation Assets	Portion of Accrued Liabilities Covered by Reported Assets		
	Active Member Contributions	Retirants, Beneficiaries & Vested Deferreds	Active Members (Employer Financed Portion)		(1)	(2)	(3)
1996	52,297,873	218,164,080	184,052,234	411,316,254	100	100	77
1997▲	53,264,614	260,095,357	183,557,364	460,667,112	100	100	80
1998	53,797,385	291,066,407	188,092,953	509,859,924	100	100	88
1999▲	55,558,145	333,340,728	188,111,212	546,510,779	100	100	84
2000▶	59,455,707	358,422,165	176,344,731	570,039,631	100	100	86
2001	63,969,216	374,228,361	198,517,881	551,279,438	100	100	57

▲ Plan Amendment  
▶ Assumption or method change

## Postemployment Health Care and Medicare Reimbursement

Year	Covered Lives	Med. B Reimb.	Medical	Prescriptions	Unallocated	Total Costs	Cost per	Payroll	% of Payroll
							Covered Life		
1996	1,379	155,769	1,353,932	491,525	21,382	2,022,608	1,467	59,239,349	3.4
1997	1,499	166,743	1,623,640	849,321	(140,526)	2,499,178	1,667	62,233,299	4.0
1998	1,602	171,223	2,147,334	1,122,248	(311,917)	3,128,888	1,953	65,153,864	4.8
1999	1,772	197,606	3,315,914	1,364,990	619,894	5,498,404	3,103	66,017,381	8.3
2000	1,848	203,157	3,190,885	1,684,300	(358,082)	4,720,260	2,554	69,028,285	6.8
2001	1,900	231,045	3,730,167	1,960,825	257,059	6,179,096	3,252	76,344,002	8.1

## Active Member Data

<u>Year Ending December 31</u>	<u>Active Members</u>	<u>Annual Payroll</u>	<u>Average Annual Salary</u>	<u>% Increase in Average Pay</u>
1996	1,375	59,239,349	43,083	4.8
1997	1,445	62,233,299	43,068	0.0
1998	1,446	65,153,864	45,058	4.6
1999	1,445	66,017,381	45,687	1.4
2000	1,489	69,028,285	46,359	1.5
2001	1,520	76,344,002	50,226	8.3

## Retirant and Beneficiary Data

<u>Year Ending December 31</u>	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>Rolls at End of Year</u>		<u>Increase in Annual Allowances</u>	<u>Average Annual Allowances</u>
	<u>Number</u>	<u>Annual Allowances</u>	<u>Number</u>	<u>Annual Allowances</u>	<u>Number</u>	<u>Annual Allowances</u>		
1996	113	\$2,922,106	28	\$300,058	911	16,834,908	18.4	18,480
1997	96	3,194,136	23	281,688	984	19,747,356	17.3	20,068
1998	96	3,427,377	20	205,641	1,060	22,969,092	16.3	21,669
1999	82	2,930,342	19	417,782	1,123	25,481,652	10.9	22,691
2000	78	2,640,298	27	516,382	1,174	27,605,568	8.3	23,514
2001	53	2,177,124	20	258,996	1,207	29,523,696	6.9	24,460

## Analysis of Financial Experience

### Gains and Losses in Pension Accrued Liabilities Resulting from Differences Between Assumed Experience and Actual Experience

<u>Type of Activity</u>	<u>Gain (or Loss) for Year</u>	
	<u>2001</u>	<u>2000</u>
<b>Age &amp; Service Retirements.</b> If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, a loss.	\$202,278	\$16,470
<b>Disability Retirements.</b> If disability claims are less than assumed, there is a gain. If more claims, a loss.	(121,688)	(916,851)
<b>Death-in-Service Benefits.</b> If survivor claims are less than assumed, there is a gain. If more claims, a loss.	(228,887)	(71,889)
<b>Withdrawal From Employment.</b> If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(56,856)	519,559
<b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	(12,023,972)	5,536,124
<b>Contribution Income.</b> If more contributions are received than expected, there is a gain. If less, a loss.	0	0
<b>Investment Income.</b> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(55,763,211)	(11,344,115)
<b>Death After Retirement.</b> If retirants live longer than assumed, there is a loss. If not as long, a gain.	Not Available	Not Available
<b>Other.</b> Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, and other events.	3,607,454	(1,019,538)
<b>Gain (or Loss) During Year From Financial Experience</b>	(64,384,882)	(7,280,240)
<b>Non-Recurring Items.</b> Adjustments for plan amendments and other adjustments.	0	13,188,717
<b>Composite Gain (or Loss) During Year</b>	<u>(\$64,384,882)</u>	<u>\$5,908,477</u>

# Plan Summary

## Purpose

The Highway Patrol Retirement System (HPRS) was created by the Ohio General Assembly in 1944 for the purpose of providing retirement and survivor benefits for its participants and beneficiaries.

## Administration

The general administration and management of the Highway Patrol Retirement System are vested in the Highway Patrol Retirement System Board of Trustees under Ohio Revised Code Chapter 5505. The seven-member Board consists of the Superintendent of the State Highway Patrol, the Auditor of State, four elected employee members, and one elected retirant member.

The employee members are elected to four-year terms by members of the plan. Any contributing member is eligible to become an employee member candidate, and all contributing members are eligible to vote in the employee member election process. Any retirant who is an Ohio resident, and who was not an employee member of the Board at retirement, is eligible to become a retirant member candidate. All retirants are eligible to vote in the retirant member election process.

The Superintendent of the State Highway Patrol and the Auditor of State serve by virtue of their office. The legal advisor of the Retirement Board is the Attorney General of the State of Ohio. A chairperson and vice chairperson are elected by the Board annually. All regular Board meetings are considered to be public meetings. The members of the Board serve without compensation, but are not expected to suffer any loss because of absence from regular employment while engaged in official Board duties, and are reimbursed for actual and necessary expenses.

## Employer Contributions

State statute requires that the Board certify the employer contribution rate to the Office of Budget and Management on even-numbered years. The employer rate may not be lower than the employee rate, nor may it exceed three times the employee rate.

## Member Contributions

All members of the HPRS, through payroll deductions, must contribute the percentage of their regular salary established by law. Individual member accounts are maintained by the HPRS and the amount contributed is refundable upon termination of employment.

## Service Credit

Additional service credit may be purchased at any time prior to retirement if the service is (1) prior Highway Patrol Service, (2) military service, (3) prior full-time service as a contributing member of the Police and Firemen's Disability and Pension Fund, the State Teachers Retirement System, School Employees Retirement System, Public Employees Retirement System, or the Cincinnati Retirement System. Prior full-time contributing service credit and member contributions may also be transferred directly from Public Employees Retirement System to HPRS. The following types of service credit may be used to meet the maximum number of years of service necessary to qualify for unreduced pension benefits: (1) military service pursuant to the Uniformed Services Employment and Re-employment Rights Act of 1994, (2) Ohio Police and Firemen's Disability and Pension Fund, and (3) contributing service in Public Employees Retirement System as a cadet at the Highway Patrol Training Academy.

## Retirement

**Service Retirement.** A member is eligible to receive a service pension upon retirement from active service by (1) attaining age 52 and accumulating at least 20 years of Highway Patrol service credit or (2) attaining age 48 and accumulating at least 25 years of service credit. Benefit payments become effective the day following the last day of employment and are payable monthly throughout the retirant's lifetime.

**Reduced Retirement.** From ages 48 through 51, a member who has accumulated at least 20 but less than 25 years of service credit, may retire and be eligible to receive a lifetime reduced pension based on the following schedule:

<b>Age</b>	<b>Reduced Pension</b>
48	75 percent of normal service pension
49	80 percent of normal service pension
50	86 percent of normal service pension
51	93 percent of normal service pension

The election to receive a reduced pension may not be changed once a retirant has received a payment.

**Deferred Retirement.** In order to maximize pension benefits, a member who becomes eligible to receive a pension may elect deferred retirement benefits.

**Resignation or Discharge.** A member who voluntarily resigns or is discharged from the State Highway Patrol for any reason other than dishonesty, cowardice, intemperate habits, or conviction of a felony, and who has accumulated at least 15 but less than 20 years of total service credit, receives a pension equal to one and one-half percent of the final average salary, multiplied by the number of years of service. This pension becomes payable at age 55.

**Disability Retirement.** A member who retires as the result of a disability incurred in the line of duty receives a pension of not less than 61.25 percent, nor more than 79.25 percent, of the final average salary. A member who retires as the result of a disability that was not incurred in the line of duty receives a pension of not less than 50 percent, nor more than 79.25 percent, of the final average salary.

### Payment Plans

Benefit payments vary in amount depending on the member's age, length of service, final average salary, and payment plan selection. The final average salary, which includes base pay, longevity, hazard duty, shift differential, and professional achievement pay, is determined by computing the average of the member's three highest years of salary.

Each member may select from the following three retirement payment plans:

**Plan 1 -- Single Life Annuity.** This plan pays the highest monthly amount; however, it is limited to the lifetime of the retirant. The pension benefit is calculated by multiplying the computed pension factor by the final average salary. The pension factor is computed by multiplying the number of years of service for years 1 through 20 by 2.5 percent, for

years 21 through 25 by 2.25 percent, and for years 26 through 34 by 2.0 percent. A pension may not exceed 79.25 percent of the member's final average salary. Members approved for disability retirement may only receive the single life annuity.

**Plan 2 -- Joint and Survivor Annuity.** This plan is the actuarial equivalent of a single life annuity and is likewise limited to the lifetime of the retirant; however, the payment is reduced because it is based on the combined life expectancies of the retirant and the designated beneficiary. Survivor benefits are paid in addition to the amounts under this plan.

**Plan 3 -- Life Annuity Certain and Continuous.** This plan is an annuity, payable for a guaranteed period. If the retirant dies before the end of the guaranteed period, the pension amount is paid to the designated beneficiary for the remainder of the specified period. Survivor benefits are paid in addition to the amounts under this plan.

### Survivor Benefits

Survivor benefits are paid to eligible survivors of deceased members and retirants of the Highway Patrol Retirement System.

If a member was not eligible for a retirement pension at the time of death, the surviving spouse receives a monthly survivor benefit of \$900.

The surviving spouse of a deceased retirant, or of a member who was eligible to receive a retirement pension at the time of death, receives a monthly benefit of \$900 or one-half the monthly pension, whichever is greater.

Each surviving dependent child receives \$150 monthly until age 18, or if a full-time college student, until age 23.

### Health Care

A comprehensive Preferred Provider medical health care plan is currently offered to all benefit recipients and their dependents. Benefit recipients have the choice of selecting one of two offered networks. In addition, benefit recipients may elect to cover spouses and dependent children by authorizing the appropriate premium deduction.

## **Medicare**

Benefit recipients who submit proof of Medicare Part B coverage are reimbursed for their basic Part B premium, up to \$54 monthly.

## **Cost of Living**

At age 53 and thereafter, retirants receive an annual cost of living adjustment (COLA) equal to 3.0%. Survivor benefit recipients are eligible for a COLA

increase after receiving benefits for twelve months. Disability benefit recipients are eligible for a COLA increase after receiving benefits for sixty months, or at age 53, whichever occurs first.

## **Death After Retirement**

Upon the death of a retirant, a lump sum payment of \$5,000 is paid to the surviving spouse, or to the retirant's estate if there is no surviving spouse.



# **Statistical Section**

## Additions by Source

### **Pension Benefits**

<u>Year</u>	<u>Member Contributions</u>	<u>Employer Contributions</u>	<u>Net Investment Income ▼ ▲</u>	<u>Transfers from Other Systems</u>	<u>Total</u>
1995	\$7,303,832	\$10,774,957	\$69,700,220	\$356,435	\$88,135,444
1996	6,223,468	12,176,108	54,183,754	494,651	73,077,981
1997	6,146,774	12,236,515	66,159,004	330,119	84,872,412
1998	6,573,762	13,101,039	13,029,413	503,509	33,207,723
1999	6,708,497	13,569,730	33,612,434	444,135	54,334,796
2000	6,954,301	13,210,189	(14,120,288)	925,998	6,970,200
2001	7,042,044	13,901,313	(17,920,157)	999,380	4,022,580
2002	7,563,173	14,923,893	(42,921,956)	999,176	(19,435,714)

### **Other Postemployment Benefits**

<u>Year</u>	<u>Employer Contributions</u>	<u>Net Investment Income ▼ ▲</u>	<u>Total</u>
1995	\$3,114,150	\$12,251,272	\$15,365,422
1996	2,530,817	9,444,391	11,975,208
1997	2,543,372	11,536,686	14,080,058
1998	2,687,150	1,396,472	4,083,622
1999	2,783,534	6,878,890	9,662,424
2000	3,346,581	(3,114,980)	231,601
2001	3,521,665	(2,900,183)	621,482
2002	3,780,715	(6,673,383)	(2,892,668)

## Deductions by Type

### **Pension Benefits**

<u>Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Transfers to Other Systems</u>	<u>Administrative ▼</u>	<u>Total</u>
1995	\$13,606,017	\$207,795	\$127,478	\$1,657,047	\$15,598,337
1996	15,920,148	67,323	140,376	2,134,192	18,262,039
1997	18,683,246	231,705	98,810	704,542	19,718,303
1998	21,539,636	164,054	281,606	648,144	22,633,440
1999	24,324,038	529,654	196,414	449,167	25,499,273
2000	27,042,946	363,067	904,972	549,168	28,860,153
2001	29,457,281	306,452	448,381	524,922	30,737,036
2002	31,325,089	266,137	1,054,264	462,200	33,107,690

### **Other Postemployment Benefits**

<u>Year</u>	<u>Health Care</u>	<u>Administrative ▼</u>	<u>Total</u>
1995	\$1,959,225	\$291,261	\$2,250,486
1996	2,022,608	371,996	2,394,604
1997	2,499,178	122,856	2,622,034
1998	3,128,888	114,378	3,243,266
1999	5,498,402	78,854	5,577,256
2000	4,720,260	95,423	4,815,683
2001	6,179,096	90,422	6,269,518
2002	7,025,043	78,635	7,103,678

▼ Effective 1996, investment expenses are reflected in net investment income rather than in administrative expenses.

▲ Effective 1997, net investment income reflects adjustments to fair value.

## Average Monthly Benefit by Type

<u>Year</u>	<u>Service</u>	<u>Disability</u>	<u>Survivor</u>	<u>Total</u>
1993	\$1,502	\$1,158	\$587	\$1,282
1994	1,614	1,210	610	1,384
1995	1,672	1,265	605	1,434
1996	1,785	1,364	776	1,540
1997	1,941	1,438	808	1,672
1998	2,086	1,583	841	1,806
1999	2,183	1,757	858	1,891
2000	2,254	1,862	861	1,960
2001 ■	2,379	1,984	880	2,038

■ 2001 is the latest actuarial evaluation.

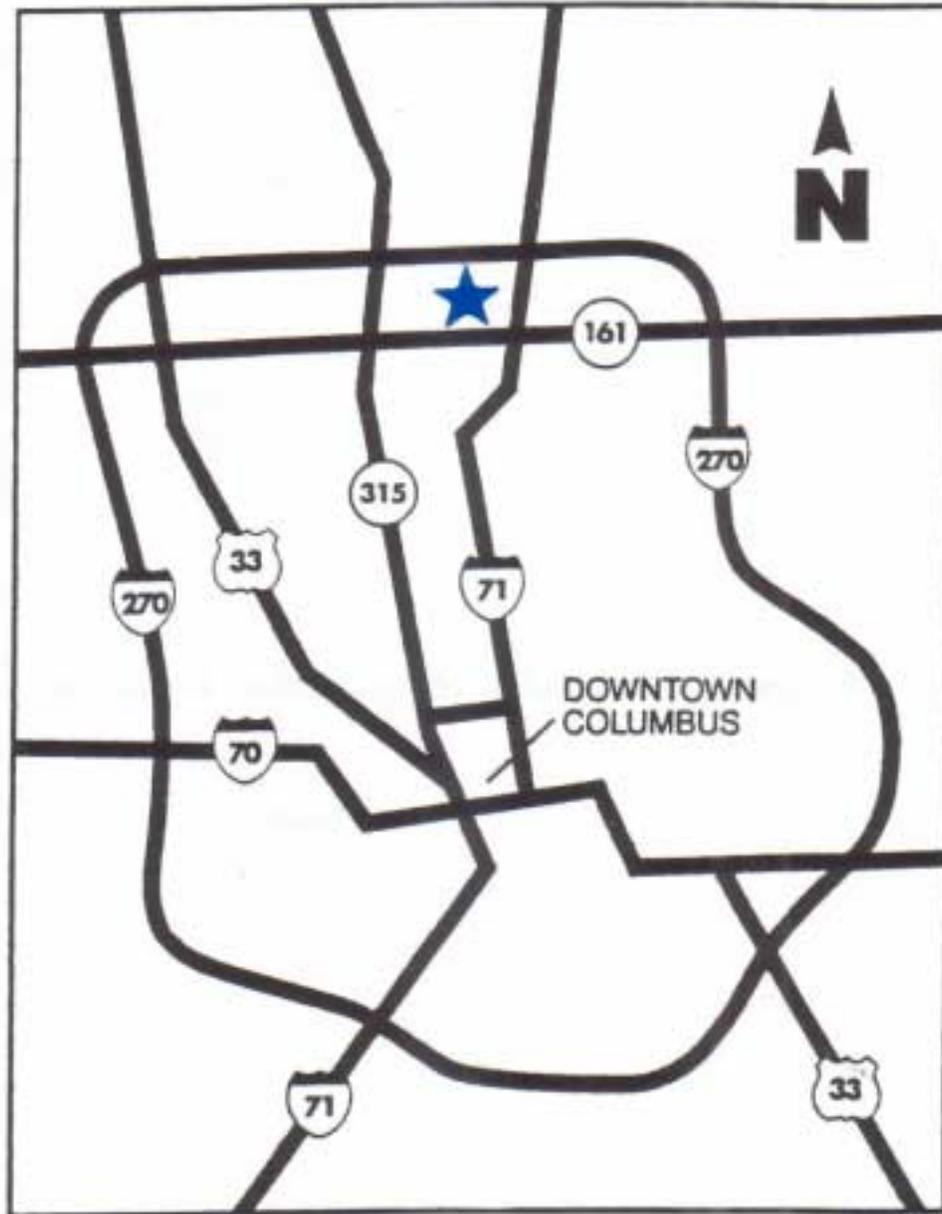
## Number of Benefit Recipients by Type

<u>Year</u>	<u>Service Retirement</u>	<u>Disability Retirement</u>	<u>Deferred Retirement</u>	<u>Survivor Benefits</u>	<u>Total</u>
1993	527	36	12	160	735
1994	568	35	12	161	776
1995	617	39	12	170	838
1996	664	44	8	203	919
1997	725	44	9	215	993
1998	793	45	6	219	1,063
1999	833	57	4	230	1,124
2000	858	65	3	249	1,175
2001	879	73	7	255	1,214
2002	891	74	6	262	1,233

## Benefit Expenses by Type

<u>Year</u>	<u>Health Care</u>	<u>Service ◇</u>	<u>Disability</u>	<u>Survivor</u>	<u>Total</u>
1993	\$1,880,622	\$8,741,102	\$405,983	\$1,114,086	\$12,141,793
1994	1,704,066	10,814,350	473,131	1,198,390	14,189,937
1995	1,959,225	11,771,088	533,619	1,301,310	15,565,242
1996	2,022,608	13,596,871	633,663	1,689,614	17,942,756
1997	2,499,178	15,830,921	785,875	2,065,619	21,181,593
1998	3,128,888	18,497,476	855,775	2,177,384	24,659,523
1999	5,498,404	22,094,306	1,139,917	1,089,813	29,822,440
2000	4,720,260	23,015,278	1,407,201	2,620,466	31,763,205
2001	6,179,096	24,891,330	1,605,426	2,961,525	35,637,377
2002	7,025,043	26,354,819	1,828,394	3,141,877	38,350,133

◇ Includes reduced, early retirement, & death benefits.



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Office Hours: 8:00 am to 4:30 pm

*One block west of Interstate 71 on State Route 161, drive north on Busch Boulevard. Turn left at the first traffic light, Shapter Avenue. Turn right into the entrance.*