

# Comprehensive Annual Financial Report

A Component Unit of the State of Ohio Year Ending December 31, 2011

Mark R. Atkeson Executive Director

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

# Highlights for 2011

- During 2011, 23 active members entered into retirement status, and 33 active members entered the DROP Program. During the year, 24 retirees and surviving spouses passed away.
- At the end of 2011 the assets of the System were valued at \$679,404,486 and the investment return for the year was -3.25% (net of fees). The value of the DROP Account was \$19,853,482.
- The Ohio Legislature took no action on the System changes requested by the Board in September of 2009. No other pension-related legislation was passed by either house during the year that affected the System. No legislation was enacted by the United States Congress that impacted the System.
- Mark Atkeson joined the System as the Executive Director. Colonel (ret.) Tom Rice
  was retained as a consultant to assist the Board in implementing the recommendations
  provided by the 2011 Fiduciary Audit and to lead an effort to develop a strategic plan
  for the System.

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# **Introductory Section**

#### **Awards**

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

# Highway Patrol Retirement System, Ohio

For its Comprehensive Annual Financial Report for the Fiscal Year Ended December 31, 2010

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.

President

Seffrey R. Engr

Executive Director

# **Board of Trustees and Senior Staff**



Col. John T. Born Statutory Trustee/Chair



Capt. Cory D. Davies Employee Trustee/ Vice-Chair



Capt. Carl Roark Employee Trustee



S/Lt. Anthony C. Bradshaw Employee Trustee



Lt. Heidi A. Marshall Employee Trustee



Lt. Andre T. Swinerton

Employee Trustee



Maj. (ret.) Darryl L. Anderson Retiree Trustee



Lt. (ret.) Larry A. Davis
Retiree Trustee



Joseph H. Thomas General Assembly's Investment Expert



Kenneth C. Boyer Treasurer of State's Investment Designee



Dennis P. Smith
Assistant Attorney General, Legal
Advisor



Keith O'Korn Assistant Attorney General, Legal Advisor

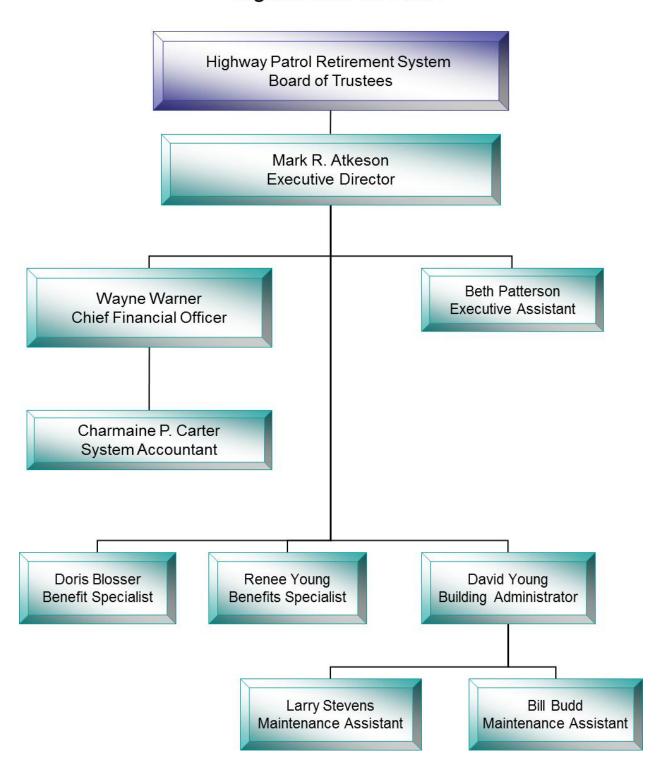


Maj. (ret.) Mark R. Atkeson Executive Director



Cpt. (ret.) Wayne A. Warner Chief Financial Officer

# **Organizational Chart**



See page 9 for a list of consultants and investment managers.

# **Consultants**

Medical Advisor Earl N. Metz, M.D. Columbus, Ohio Independent Auditor
Kennedy, Cottrell, Richards
Columbus, Ohio

Actuary Gabriel, Roeder, Smith & Company Southfield, Michigan Investment Consultant
Hartland & Co.
Cleveland, Ohio

# **Investment Managers**

Ancora Advisors Beachwood, Ohio Micro Cap Equity

Artio Global Investors New York, New York International Equity

Brandywine Global Investment Management Philadelphia, Pennsylvania Small/Mid Cap Value Equity

Credit Suisse Alternative Investments New York, New York Private Equity

> DePrince, Race & Zollo Winter Park, Florida Large Cap Value Equity

Dimensional Fund Advisors Austin, Texas Small Cap Blend Equity & International Equity

Driehaus Capital Management Providence, Rhode Island International Small Cap Growth Equity

> Evanston Capital Management Evanston, Illinois Fund of Hedge Funds

Feingold O'Keeffe Capital Boston, Massachusetts Distressed Debt

Fred Alger Management Jersey City, New Jersey Small Cap Growth Equity

GAM Fund Management Ltd. New York, New York Fund of Hedge Funds Henderson Global Investors Hartford, CT Real Estate

James Investment Research Alpha, Ohio Micro Cap Equity

Johnson Institutional Management Cincinnati, Ohio Core/Short-Term Fixed Income

J.P.Morgan Asset Management New York, New York Intermediate-Term Fixed Income

Kayne Anderson Capital Advisors Los Angeles, California Energy/Mezzanine Private Equity

> Legg Mason Baltimore, Maryland High Yield Fixed Income

Loomis, Sayles & Company Boston, Massachusetts Small/Mid Cap Core Equity

LSV Asset Management Chicago, Illinois Large Cap Value Equity

Manning & Napier Fund Dublin, Ohio International Equity

NB Alternative Investment Management New York, New York Fund of Hedge Funds

Oaktree Capital Management New York, New York Real Estate Private Equity

> OFI Trust Company New York, New York Emerging Markets

Pantheon Ventures San Francisco, California Private Equity

Protégé Partners New York, New York Fund of Hedge Funds

Pyramis Global Advisors Springfield, Rhode Island Real Estate

Sankaty Advisors Boston, Massachusetts Distressed Debt

Seix Investment Advisors Upper Saddle River, New Jersey Distressed Debt

State Street Global Advisors Boston, Massachusetts Large Cap Blend Indexed

T. Rowe Price Baltimore, Maryland Large Cap Blend Indexed

> Timbervest Atlanta, Georgia Real Estate

The Vanguard Group Wayne, Pennsylvania Money Market

Wellington Management
Boston, Massachusetts
Fixed Income & Large Cap Growth
Equity

Westfield Capital Management Boston, Massachusetts Small/Mid Cap Growth Equity

World Asset Management Birmingham, Michigan Small Cap Value Indexed, Mid Cap Blend Indexed, & International Equity

See the Investment Section, pages 52-53 for payments to investment managers and brokers.

# **Introductory Section**

# **Legislative Summary**

In the fall of 2009, the Ohio Legislature directed each of the five public pension systems to develop and submit a fiscal solvency plan that would bring each system into compliance with the 30 year amortization requirement, and provide long-term stability of their health care funds. All of the systems submitted their recommendations, and for nearly three years the legislature has taken no action. During that time, positive and negative events impacted each plan, necessitating that each system's board was required to modify those plans. The inaction of the legislature has required more expansive changes to each fund's plan that will result in more drastic impacts on members.

Late in 2011, the Ohio Retirement Study Council (ORSC), a committee comprised of senators and representatives of the Ohio Legislature and appointees of the governor, committed over \$250,000 of the pension funds' assets to conduct a comprehensive report and actuarial assessment of each fund. The goal is to validate the financial standing of each fund and to evaluate the actuarial assumptions the funds use to make fiscal decisions. The final report of the consultant hired by the ORSC is due in July 2012.

On May 23, 2012, the Ohio Senate unanimously passed SB 345, HPRS's pension reform legislation. Action is expected in the Ohio House of Representatives in the summer or fall session of 2012, after review of the comprehensive report sanctioned by the ORSC. The bill, as passed by the Senate, will ensure the solvency of our system, bring us into compliance with the 30 year amortization requirement, and provide long-term stability of our health care fund.

In 2011, the United States Congress took no meaningful action to improve the financial solvency of the Social Security System, Medicare and Medicaid resulting in these programs moving perilously closer to bankruptcy. The majority of HPRS retirees qualify for Social Security benefits due to employment other than with the Highway Patrol, and qualify for Medicare Part A or B, or both. If these federal retirement/health care programs collapse or suffer significant cutbacks, additional pressure will be placed on the HPRS benefits.



June 22, 2012

#### Letter of Transmittal

Members of the Board of Trustees:

We are pleased to present to you the *Comprehensive Annual Financial Report* for the Highway Patrol Retirement System (HPRS) for the period ending December 31, 2011. Working with each HPRS staff member and the various consultants employed by the HPRS, we take full responsibility for the accuracy and completeness of this report. The data presented in this report demonstrates the careful stewardship of the system's assets to enable the Board to provide excellent pension and health care benefits to our members.

The Highway Patrol Retirement System was created by the Ohio Legislature in 1941 to provide pension benefits to the sworn officers and communications personnel of the Ohio State Highway Patrol. Prior to this action of the Legislature, active duty members of the Patrol contributed to the Ohio Public Employees Retirement System. In 1974, the legislature authorized the HPRS to offer health care benefits to retired members, if excess funds are available. Currently, only sworn officers, cadets in training to become sworn officers, and communication personnel hired prior to November 2, 1989, are permitted to be contributing members of the HPRS.

In addition to pension benefits, the HPRS provides disability benefits to active duty members, disabled both on and off duty. Survivor and death benefits and health care coverage is provided for benefit recipients and eligible dependents. A full description of benefits provided by the HPRS can be found in the *Summary of Plan Provisions* portion of the Actuarial Section.

#### **Significant Plan Initiatives and Changes in 2011**

As reported in the *Legislative Summary* section, the HPRS submitted a comprehensive solvency plan to the Ohio Legislature to address the negative impacts of the recession of 2008 and the extraordinary increases in the cost of health care. After receiving input from active and retired members, surviving spouses and dependent children, and using data provided by various consultants, the HPRS Board developed a plan that balanced the cost of the changes needed among all participants. This plan sat in the hands of the Legislature, with no action for over two years. As stated in the Legislative Summary, on May 23, 2012, the Ohio Senate unanimously passed SB 345, HPRS's pension reform legislation. Action is expected in the Ohio House of Representatives in the summer or fall session of 2012, after review of the comprehensive report sanctioned by the Ohio Retirement Study Council (ORSC).

As a best practice and required by the ORSC, HPRS subjected itself to a comprehensive fiduciary audit. This audit evaluated, in detail, the policies and procedures of the retirement system. Listed below are the high level outcomes of the audit:

- *The practices and policies we reviewed are fundamentally sound.*
- HPRS follows many practices that are in line with common practices of other public retirement systems and institutional investors.
- We did not find any areas where we believed a breach of fiduciary responsibility had occurred or was imminent.
- We did, however, find room for enhancements as detailed in our recommendations.

(Source: Hewitt Ennis Knupp, 2011)

The auditor provided a number of recommendations to the HPRS Board to consider. In response, the Board hired Colonel (ret.) Thomas Rice to assist with evaluating the recommendations and developing and implementing strategies where necessary. Colonel Rice is also assisting the Board in developing a comprehensive strategic plan for the future of the HPRS.

In the last quarter of 2011, Executive Director Dan Weiss and Chief Financial Officer Charles Redifer resigned and were replaced by Major (ret.) Mark Atkeson, as Executive Director effective January 2, 2012, and Captain (ret.) Wayne Warner, as Chief Financial Officer effective January 29, 2012.

#### **Investments**

The design of defined benefit plans for public employees provides that in early years the few pensions are easily covered by the inflow of contributions from both the employer and the active duty members. As the plans mature, they reach a point where pension costs exceed contributions, and investment returns are needed to meet expenses. This is a natural and expected occurrence. The HPRS reached that mature status several years ago. It is very important that the Board develops and implements an investment strategy that provides the funds necessary to maintain the security and safety of the plan. With retirees living longer, health care costs inflating at a rate of many times the actual rate of inflation and financial downturns, such as the recession of 2008, the investment strategy must be monitored and adjusted constantly. Defined benefit plans, including the HPRS and Social Security, function optimally when the ratio is between two to three active workers for every retiree. With approximately 1600 active OSP members and about 1200 retirees, additional stress is placed on investment returns to make up the difference.

For a period of 35 years prior to 2008, the United States stock market returned an average of 12% - 14% and the bond market returned 6% - 8%. By allocating assets among these asset classes the Board has been able for many years to meet or exceed a required return of 8%. In 2008, the US stock market saw losses of approximately 37% but the bond market returned gains of approximately 5%. In the 3-year period since 2008, the US stock market has returned an average of 14%, while the bond market return was 7%.

The year 2011 was a mixed bag in terms of investment returns. The first quarter of 2011 produced a stock return of over 6%, but the remainder of the year was plagued by very volatile returns, ending with an annual loss of nearly 6%. The majority of the negative results were driven by international equity exposure. The bond market produced an annual return of 7%.

A more detailed report on investment operations and performance can be found in the *Management's Discussion and Analysis* section, beginning on page 18.

#### **Internal Controls**

It is extremely important that the Board and staff administer the HPRS in full compliance with the Ohio Revised Code, the Administrative Code of Ohio, and the HPRS Policies and Procedures. Prior to Senate Bill 133 (enacted in 2004), the HPRS Board monitored compliance through an appointed committee of the Board. A provision of SB 133 required that an Internal Auditor be tasked with monitoring this compliance and report findings to an Audit Committee of the Board. With the understanding of the Ohio Attorney General and the Ohio Retirement Study Council, the HPRS tasked the annual financial auditor appointed by the Auditor of State to complete these compliance monitoring tasks. The fiduciary audit of 2011 recommended to the HPRS that a separate auditor be retained to complete these compliance monitoring duties. In early 2012, an internal auditor was retained, and its report will be presented to the Board in June of 2012. Preliminary reports indicate that no substantial breaches in compliance or findings are forthcoming.

For the past many years the external auditors appointed by the Auditor of State have noted in their reports that the internal controls of the HPRS parallel best practices of public pension plans and are in full compliance with nationally accepted accounting standards. The external auditors have never found a substantial breach in compliance and no findings have ever been issued against the HPRS.

### **Funding**

The funding of pension and health care benefits of the HPRS comes from a combination of employer and employee contributions, and investment returns. Ohio Law requires public pension plans be able to amortize pension obligations within a 30 year period. A national standard of funding status is benchmarked at 80%. At the close of 2009, the HPRS was not able to amortize pension liabilities in 30 years or less. The funding status percentage dropped from 80.9% at the end of 2007 to 66.0% at the end of 2009. These declines were the prime movers for the Board to design the pension solvency plan submitted to the legislature in September 2009. The amortization period still exceeds the 30 year limit and the funding status was 62.0% for the period ending December 31, 2010. Increased employee contributions, a reduction in cost of living increases to retirees, and several other plan design changes were deemed necessary by the Board and included in its comprehensive solvency plan.

#### Awards

The Government Finance Officers Association of the United States 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 for the fiscal year ended December 31, 2010. In order to be awarded a Certificate of Achievement, a government must

publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

# **Professional Services**

To aid in efficient and effective management, 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 Hartland & Co. of Cleveland, Ohio. Under contract with the Auditor of the State of Ohio, Kennedy, Cottrell, Richards, Certified Public Accountants of Columbus, Ohio, audited the financial records of the system.

# **Acknowledgements**

In January 2011, Marty Hudson retired as Trading Analyst with over 17 years of service. In October 2011, Chuck Redifer resigned as CFO to pursue other professional opportunities. In December 2011, Daniel Weiss resigned after two years of service as executive director and nine years as CFO. For their commitment and diligence on behalf of active members, retirees, and other benefit recipients, we thank them for their dedicated service.

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.

Upon publication of this report at www.ohprs.org, HPRS will notify interested parties of its availability, including all State Highway Patrol facilities, professional consultants, investment managers, and the Ohio Retirement Study Council.

Submitted for your review,

Mark R. Atkeson Executive Director Wayne A. Warner Chief Financial Officer

Steepe a Steeren



# **Financial Section**



Phone: 614.358.4682 Fax: 614.269.8969 www.kcr-cpa.com

#### INDEPENDENT ACCOUNTANTS' REPORT

Ohio State Highway Patrol Retirement System 6161 Busch Boulevard, Suite 119 Columbus, Ohio 43229-2553

To the Board of Trustees:

We have audited the accompanying basic financial statements of the Ohio State Highway Patrol Retirement System (HPRS), a component unit of the State of Ohio, as of and for the year ended December 31, 2011, as listed in the table of contents. These financial statements are the responsibility of the 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 the Comptroller General of the United States' *Government Auditing Standards*. Those standards require that we plan and perform the audit to reasonably assure 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 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 Ohio State Highway Patrol Retirement System, as of December 31, 2011, 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 June 26, 2012, on our consideration of the HPRS' internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. While we did not opine on the internal control over financial reporting or on compliance, that report describes the scope of our testing of internal control over financial reporting and compliance and the results of that testing. That report is an integral part of an audit performed in accordance with *Government Auditing Standards*. You should read it in conjunction with this report in assessing the results of our audit.

Accounting principles generally accepted in the United States of America require this presentation to include the Management's discussion and analysis and Required Supplementary Schedules, as listed in the table of contents, to supplement the basic financial statements. Although this information is not part of the basic financial statements, the Governmental Accounting Standards Board considers it essential for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any other assurance.

Ohio State Highway Patrol Retirement System Independent Accountants' Report Page 2

We conducted our audit to opine on the financial statements that collectively comprise the HPRS' basic financial statements taken as a whole. The introductory section, supplementary information, investment section, and actuarial section, as listed in the table of contents, provide additional analysis and are not a required part of the basic financial statements. The supplementary information is management's responsibility, and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. These schedules were subject to the auditing procedures we applied to the basic financial statements. We also applied certain additional procedures, including comparing and reconciling this information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, in accordance with auditing standards generally accepted in the United States of America. In our opinion, this information is fairly stated in all material respects in relation to the basic financial statements taken as a whole. We did not subject the introductory section, investment section, and actuarial section to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion or any other assurance on them.

Kennedy Cottrell Richards LLC

Kennedy Cottnell Richards LLC

June 26, 2012

#### **Financial Highlights**

- At December 31, 2011, the assets of HPRS exceeded liabilities by \$679,404,486. All of the net assets are held in trust for pension and health care benefits and are available to meet HPRS's ongoing obligations to plan participants and their beneficiaries.
- During 2011, HPRS's total net assets decreased by \$54,878,221, or 7.5%, with 34.9% of this decrease attributable to investment losses.
- HPRS's funding objective is to meet long-term benefit obligations through contributions and investment income. At December 31, 2010, the date of the most recent actuarial valuation, HPRS assets equaled 62.0% of the present value of pension obligations.
- Revenues (additions to plan net assets) for the year were \$16,478,276, which includes member and employer contributions of \$32,937,804 and investment losses of \$19,137,754.
- Expenses (deductions from plan net assets) increased 8.1% over the prior year. Of this amount, pension benefits increased by 6.0%, health care expenses increased by 5.4% and administrative expenses increased by 48.9%. Most of this increase was due to required additional actuarial and legal services as well as a fiduciary audit mandated by the ORSC.

#### **Overview of the Financial Statements**

The financial statements consist of the following 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 yearend, indicating the assets available for future payments to benefit recipients, 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, 2010, the date of the latest actuarial valuation, the current funding ratio was 62.0%. This means that HPRS had approximately \$0.62 available for each \$1.00 of projected pension liabilities.

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. Each capital asset is depreciated over its expected useful life.

The difference between HPRS assets and liabilities is reported on these statements as Net Assets Held in Trust for Pension and Post-Employment 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 22-23 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 the *Notes to the Financial Statements* on pages 24-37 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 the *Required Supplementary Schedules* on pages 38-39 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 2011, total contributions and negative investment returns resulted in additions of \$16.5 million. Employer contributions increased by 0.6% and member contributions increased by 0.6%, primarily due to the discontinuation of cost saving days.

Revenues - Additions to Plan Net Assets (in thousands)				
(III thousands)		Restated		_
	2011	2010	\$ Change	% Change
Net appreciation in fair value of investments	(\$25,843)	\$86,194	(\$112,037)	(130.0)
Interest and dividend income	11,543	8,875	2,668	30.1
Real estate operating income, net	153	127	26	20.5
Investment expenses	(4,991)	(4,924)	(67)	1.4
Security lending activity, net	-	(377)	377	N/A
Employer contributions	24,589	24,440	149	0.6
Member contributions	8,349	8,296	53	0.6
Transfers from other Ohio systems	608	329	279	84.8
Health care premiums	1,274	911	363	39.9
Retiree Drug Subsidy	423	472	(49)	(10.4)
Prescription Drug Rebates	366	282	84	29.8
Medicare D Refunds	7	1	6	600.0
Total additions	\$16,478	\$124,626	(\$108,148)	(86.8%)

The *Investment Section* of this report summarizes the result of investment activity for the year ending December 31, 2011.

# **Expenses - Deductions from Plan Net Assets.**

HPRS was created to provide retirement, disability, and survivor benefits to qualified members and their beneficiaries. The costs of these programs include benefit payments by the plan, refunded contributions, and the administrative costs of the system. In 2011, total deductions from plan net assets increased 9.0%. This included a 5.4% increase in health care expenses, and administrative expenses increased by 48.8%. This increase is due primarily to expenses incurred for a fiduciary audit at the direction of the Ohio Retirement Study Council and additional actuarial valuations conducted to gauge the impact of proposed legislative changes. Refunds of member contributions decreased by 5.3% and transfers of contributions to other Ohio retirement systems increased by 217.3%.

Expenses – Deductions from Plan Net Assets (in thousands)				
	2011	Restated <b>2010</b>	\$ Change	% Change
Pension benefits	\$55,638	\$52,499	\$3,139	6.0%
Refunds of member contributions	452	477	(25)	(5.3)
Health care	12,361	11,730	631	5.4
Administrative expenses	1,108	744	364	48.9
Transfers to other Ohio systems	1,798	567	1,231	217.1
Total deductions	\$71,357	\$66,016	\$5,341	8.1%

# **Changes in Net Assets**

In 2011, Net Assets Held in Trust for Pension and Post-Employment Health Care Benefits decreased by \$54,878,221, or (7.5%). Investment income attributable to the decrease in fair values of investments equaled (\$25,842,617), or 47.1% of the decrease in net assets. All of the net assets are available to meet HPRS's ongoing obligations to plan participants and their beneficiaries.

Changes in Net Ass (in thousands)	sets	
	2011	2010
Beginning balance	\$734,283	\$675,673
Ending balance	679,404	734,283
Total change	(\$54,879)	\$58,610
% change	(7.5%)	8.7%

#### **Capital Assets**

As of December 31, 2011, HPRS's investment in capital assets totaled \$15,786 (net of accumulated depreciation), a decrease of \$4,748 or (23.1%) from December 31, 2010. This investment in capital assets includes office equipment, software, and furniture for administrative use. The decrease in HPRS's net investment in capital assets for the current year was wholly attributable to the depreciation of office equipment.

#### **Total Assets**

In 2011, total assets decreased by \$56,241,502, or (7.42%). The change in total assets was largely attributable to decreases in the fair value of investments and pension benefit payments exceeding contributions.

Assets (in thousands)				
	2011	2010	\$ Change	% Change
Cash and short term investments	\$10,641	\$15,744	(\$5,103)	(32.41%)
Receivables	2,076	2,792	(716)	(25.64)
Investments, at fair value	688,789	739,247	(50,458)	(6.83)
Prepaid assets	51	11	40	363.64
Other assets	16	21	(5)	(23.81)
Total assets	\$701,573	\$757,815	(\$56,242)	(7.42%)

#### **Total Liabilities**

Total liabilities decreased by \$1,363,281, or (5.8%).

Liabilities (in thousands)				
	2011	2010	\$ Change	% Change
Current liabilities	\$2,315	\$3,305	(\$990)	(29.9%)
Long-term liabilities	19,854	20,227	(373)	(1.8)
Total liabilities	\$22,169	\$23,532	(\$1,363)	(5.8%)

#### **Summary**

The investment losses experienced by the HPRS during 2011 were the result of a weak performance of domestic and international equities and poor performance by several of the investment managers. In 2012, performance evaluations of investment managers will determine whether some managers should be terminated and/or assets reallocated to different asset classes. HPRS management and HPRS's actuary agree that, in absence of future actuarial gains, HPRS will require an increase in contributions and/or benefit changes to the pension program to meet its obligations to plan participants and beneficiaries.

#### **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 can be requested from:

Wayne A. Warner, Chief Financial Officer, State Highway Patrol Retirement System, 6161 Busch Boulevard, Suite 119, Columbus, OH 43229-2553. 614-430-3558. wwarner@ohprs.org

Combining Statement of Plan Net Assets December 31, 2011			
		Post-Employment	
	Pension	Health Care	Total
Assets			
Cash and short-term investments	\$ 9,110,776	\$ 1,530,168	\$ 10,640,944
D : 11			
Receivables	000 127	(2.465	0.61.500
Employer contributions receivable	898,127	63,465	961,592
Member contributions receivable	668,458	- (4.100	668,458
Accrued investment income	382,244	64,198	446,442
Health care receivable	-	-	-
Miscellaneous receivable		-	-
Total receivables	1,948,829	127,663	2,076,492
Investments, at fair value			
Domestic equity	206,200,366	32,896,093	239,096,459
International equity	100,467,572	16,030,076	116,497,648
Fixed income	148,716,026	23,728,345	172,444,371
Real estate	27,870,989	4,446,948	32,317,937
Private equity	63,314,998	10,102,207	73,417,205
Hedge funds	47,445,422	7,570,141	55,015,563
Total investments	594,015,373	94,773,810	688,789,183
Prepaid expenses	43,513	7,308	50,821
Property and equipment, net	13,516	2,270	15,786
Total other assets	57,029	9,578	66,607
Total assets	605,132,007	96,441,219	701,573,226
Liabilities			
Accounts payable	505,113	84,834	589,947
l		,	
Accrued payroll liabilities	172,120 20,839,279	28,908	201,028 20,839,279
Accrued pension liabilities	20,039,279	494 400	
Accrued health care liabilities Other liabilities	16 200	484,400	484,400
	46,308	7,778	54,086
Total liabilities	21,562,820	605,920	22,168,740
Net assets held in trust for pension and			
post-employment health care benefits	\$ 583,569,187	\$ 95,835,299	\$ 679,404,486

See the accompanying Notes to the Financial Statements, pages 24-37.

# Combining Statement of Changes in Plan Net Assets Year ending December 31, 2011

	Pension	Post-Employment Health Care	Total
Additions			
Contributions			
Employer	\$ 22,966,338	\$ 1,622,889	\$ 24,589,227
Member	8,348,577	-	8,348,577
Transfers from other systems	608,366	-	608,366
Other income			
Health care premiums	-	1,274,337	1,274,337
Retiree drug subsidy	-	422,640	422,640
Prescription drug rebates	-	366,316	366,316
Medicare D refunds		6,567	6,567
Total contributions	31,923,281	3,692,749	35,616,030
Investment activity			
Net appreciation in fair value			
of investments	(22,126,448)	(3,716,169)	(25,842,617)
Interest and dividend income	9,883,242	1,659,904	11,543,146
Real estate operating income, net	131,010	22,004	153,014
	(12,112,196)	(2,034,261)	(14,146,457)
Less: investment expenses	(4,273,549)	(717,748)	(4,991,297)
Net income from investment activity	(16,385,745)	(2,752,009)	(19,137,754)
Total additions	15,537,536	940,740	16,478,276
Deductions			
Pension benefits	55,638,322	_	55,638,322
Refunds of member contributions	451,682	_	451,682
Health care expenses	-	12,360,917	12,360,917
Administrative expenses	948,319	159,271	1,107,590
Transfers to other systems	1,797,986	-	1,797,986
Total deductions	58,836,309	12,520,188	71,356,497
Change in plan net assets	(43,298,773)	(11,579,448)	(54,878,221)
Net assets held in trust for pension and			
post-employment health care benefits			
Balance, December 31, 2010	626,867,960	107,414,747	734,282,707
Balance, December 31, 2011	\$583,569,187	\$95,835,299	\$ 679,404,486

See the accompanying Notes to the Financial Statements, pages 24-37.

# Note 1 Summary of Significant Accounting Policies

#### **Basis of Accounting**

HPRS financial statements are prepared using the accrual basis of accounting, under which expenses are recorded when incurred and revenues are recorded when earned and 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 recorded at the trade date. Administrative expenses are financed by investment income.

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 assets and liabilities, disclosure of contingent assets and liabilities, and the reported revenues and expenses during the accounting period. Actual results could differ from these estimates.

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 post-employment health care plans.

#### **Investment Accounting**

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

All investments are reported at fair value. Fair value is the amount that the plan could reasonably expect to receive in a current sale between a willing buyer and a willing seller, other than in a forced or liquidation sale.

Securities traded on a national exchange are valued at the last reported sales price at the current exchange rate. Fair values of real estate and private equity investments are based on information provided by the fund's managers or by independent appraisals.

Net appreciation (or depreciation) in fair value of investments is determined by calculating the change in the fair value between the beginning of the year and the end of the year, less purchases at cost, plus sales at fair value. Investment expenses consist of expenses directly related to HPRS investment operations, as well as an allocation of certain administrative expenses.

#### **Use of Estimates**

In preparing financial statements in conformity with governmental accounting principles generally accepted in the United States of America, the management of HPRS makes estimates and assumptions that affect (1) the reported amounts of assets and liabilities, (2) disclosures of contingent assets and liabilities, and (3) the amount of revenues and expenses during the reporting period. Actual results could differ from those estimates and assumptions. Certain investment assets, including private equity and real estate, use estimates in reporting fair value in the financial statements. These estimates are subject to uncertainty in the near term, which could result in changes in the values reported for those assets in the Combining Statement of Plan Net Assets.

#### **Capital Assets**

When acquired, an item of property or equipment in excess of \$5,000 is capitalized at cost. An improvement in excess of \$5,000 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 useful life of each asset (typically, between three and ten years).

#### **Accrued Health Care Liabilities**

Accrued health care liabilities are based upon estimates furnished by the claims administrators. These estimates have been developed from prior claims experience.

In general, costs of member health care benefits are recognized as claims are incurred and premiums are paid. Health care benefit expenses of \$12,360,917 for 2011 are shown on the accompanying Combining Statement of Changes in Plan Net Assets.

#### **Contributions and Benefits**

Based on statutory or contractual requirements, employer and employee contributions are recognized when due. In accordance with the terms of the plan, benefits and refunds are recognized when due and payable.

#### **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.

#### **Note 2** Plan Description

#### **Organization**

The State Highway Patrol Retirement System (HPRS) is a single-employer retirement system for employees of the Ohio State Highway Patrol, including officers with arrest authority, cadets in training at the Highway Patrol Training Academy, and members of the radio division who were hired prior to November 2, 1989. HPRS was created by Ohio Revised Code Chapter 5505 and is administered by a Board of Trustees consisting of five active members, two retired members, three appointed members, and one ex-officio member. The Board appoints an executive director, actuary, investment consultant, medical advisor, and independent auditor.

HPRS administers both a defined benefit pension plan and a post-employment health care plan, which is considered to be an "other post-employment benefit," or OPEB. Financial information for pensions and OPEB are presented separately in the combining financial statements. HPRS, a separate financial reporting entity in accordance with criteria established by GASB Statement No. 39 (an amendment to No. 14), is a component unit of the State of Ohio. HPRS does not have financial accountability over any entities.

# Membership

HPRS membership consisted of the following at December 31, 2010 (the latest available actuarial data):

Membership Data December 31, 2010	
Pension & OPEB Benefits	
rension & OPED benefits	
Retirees & other benefit recipients	1,424
Terminated members not yet receiving benefits	4
Active members	
Vested	677
Nonvested	860

#### **Benefits**

Members are eligible for pension and health care benefits upon reaching both an age and a service requirement with the Ohio State Highway Patrol. The pension benefit is a percentage of the member's final average salary, which is defined as the average of the member's three highest salaried years. For a minimum of 15 years of service, but less than 20, the percentage is determined by multiplying 1.5% times the number of years of service credit, with benefits commencing at age 55. For 20 or more years of service, 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 pension and health care benefits, HPRS also provides for disability and survivor benefits.

In 2006, HPRS implemented a Deferred Retirement Option Plan ("DROP"). In general, a member who is eligible to retire with an unreduced pension benefit may enter the DROP. The member will continue to work in the existing assignment as determined by the employer and receive the appropriate compensation for that rank. A DROP member does not accumulate additional pension service credit; however, instead of receiving a monthly pension benefit, the member accrues that benefit in a tax-deferred account until employment with the Ohio State Highway Patrol is terminated. At December 31, 2011, HPRS had a DROP liability of \$19,853,482 to 122 DROP participants.

#### **Contributions**

The Ohio Revised Code requires contributions by both active members and the Ohio State Highway Patrol. Both the member and employer contribution rates are established by the Ohio General Assembly, and any change in the rates requires legislative action. The employer contribution rate may not be lower than nine percent of the total salaries paid to contributing members and may not exceed three times the member contribution rate.

In 2011, the member contribution rate was 10.0% of payroll and the employer contribution rate was 26.5%.

Based on the December 31, 2009, actuarial valuation, the Board allocated the employer contribution rate to pension benefits effective January 1, 2010, and OPEB as follows:

Pension	OPEB	Total
23.00%	3.50%	26.50%

Based on the December 31, 2010, actuarial valuation, the Board allocated the employer contribution rate to pension benefits effective January 1, 2011, and OPEB as follows:

Pension	OPEB	Total
24.75%	1.75%	26.50%

Because losses that occurred in 2008 are not yet fully recognized, the HPRS actuary was unable to amortize unfunded actuarially accrued pension liabilities over a finite period. Without plan design changes, the system is unlikely to be able to pay off future liabilities.

Upon request of a member who terminates employment with the Ohio State Highway Patrol, member contributions are refunded. If a member dies while active in the service of the Ohio State Highway Patrol, member contributions are refunded to the member's beneficiary, provided that no survivor benefits are payable.

A member with credited service in Ohio Public Employees Retirement System (OPERS), School Employees Retirement System (SERS), State Teachers Retirement System (STRS), Ohio Police & Fire Pension Fund (OP&F), or Cincinnati Retirement System (CRS) may transfer that service credit to HPRS. Similarly, a member with credited service in HPRS may transfer that service to OPERS, SERS, STRS, OP&F, or CRS.

# **Funded Status and Funding Progress**

#### **Pension**

The funded status of the pension plan at the most recent actuarial valuation, December 31, 2010, is as follows:

Pension Funded Status December 31, 2010	
Actuarially Accrued Liability Valuation Assets Unfunded Actuarially Accrued Liability Assets as a % of AAL Active Member Payroll UAAL as a % of Active Member Payroll	\$1,017,770,449 630,971,500 \$386,798,949 62.0% \$94,767,852 408.2%

The Schedule of Funding Progress - Pension includes six years of data and is presented as required supplementary information following the Notes to the Financial Statements.

# **OPEB** (other post employment benefit)

The funded status of the OPEB plan at the most recent actuarial valuation, December 31, 2010, is as follows:

OPEB Funded Status December 31, 2010	
Actuarially Accrued Liability Valuation Assets	\$406,864,423 104,738,337
Unfunded Actuarially Accrued Liability	\$302,126,086
Assets as a % of AAL Active Member Payroll UAAL as a % of Active Member Payroll	25.7% \$94,767,852 318.8%

The Schedule of Funding Progress - OPEB includes four years of data and is presented as required supplementary information following the Notes to the Financial Statements.

#### **Actuarial Assumptions and Methods**

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

The health care coverage provided by HPRS is considered to be another postemployment benefit (OPEB) as described in GASB Statement 45. Health care benefits are not guaranteed and are subject to change at any time. The OPEB valuation is based on the substantive plan as it is currently presented to plan members, including the historical pattern of cost-sharing between the plan and benefit recipients. The actuarial methods and assumptions do not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing in the future. The actuarially determined amounts for the OPEB plan are subject to continual revision as results are compared to past expectations and new estimates are made about the future. The actuarial calculations of the OPEB plan reflect a long-term perspective.

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

Other actuarial assumptions and methods are as follows:

- projected investment return of 8.0% for pension assets and 5.0% for OPEB assets, compounded annually, net of administration expenses,
- projected salary increases of 4.0%, compounded annually, attributable to inflation,
- additional projected salary increases attributable to seniority and merit, ranging from 0.3% to 10.0% per year, depending on service,
- post-employment mortality life expectancies of members based on RP-2000 Combined Healthy Male and Female Tables projected to 2020 using Projection Scale AA,
- probabilities of early withdrawal from active service based on actual plan experience,
- for disability retirement, impaired longevity is based on the RP-2000 Combined Healthy Male and Female Tables, set forward 5 years,
- 50% of disability retirements is assumed to be duty-related and 50% is assumed to be non-duty-related,
- health care inflation of 4.0%, compounded annually, plus an additional declining percentage ranging from 5.0% 0.5% through 2019,
- OPEB recipients are eligible for Medicare at age 65 or at the time of a disability,
- employer contributions are assumed to be received in equal installments throughout the year, and
- maximum contribution rates have not been considered in the projection of actuarially accrued liabilities for pension or OPEB benefits.

#### Note 3 Net Assets

Chapter 5505 of the Revised Code requires that various funds be established to account for contributions, reserves, income, and expenses.

The Employees' Savings Fund was created to accumulate the contributions deducted from the salaries of members, less any refunds of member contributions. Upon retirement, a member's contributions are transferred to the Pension Reserve Fund. The Employer's Accumulation Fund is the fund in which the state's contributions to HPRS are accumulated. Included in this fund are the reserves allocated to the payment of other post-employment benefits (OPEB).

The Pension Reserve Fund is the fund from which all pensions are paid to members who retire on or after January 1, 1966.

The Survivors' Benefit Fund is the fund from which survivor benefits are paid to qualifying beneficiaries.

The Income Fund is used to accumulate all interest, dividends, distributions, and other income from deposits and investments. Gifts, bequests to the system, transfers, and any other income are also credited to the Income Fund.

The Expense Fund provides for the payment of administrative expenses with the necessary money allocated to it from the Income Fund.

At December 31, 2011, plan net assets were allocated to the various funds as follows:

Net Assets December 31, 2011	
Employees' Savings Fund	\$107,709,777
Employer's Accumulation Fund	86,021,077
Pension Reserve fund	558,062,778
Survivors' Benefit Fund	31,294,317
Income Fund	(103,683,463)
Expense Fund	-
Total	\$679,404,486

# **Note 4** Property and Equipment

The following is a summary of equipment, at cost, less accumulated depreciation, at December 31, 2011:

Fixed Assets December 31, 2011	
Cost, 12/31/2010 (+) Additions (-) Retirements	\$134,809 - -
Cost, 12/31/2011	\$134,809
Accumulated depreciation, 12/31/2010 (+) Additions (-) Retirements	\$114,275 4,748
Accumulated depreciation, 12/31/2011	\$119,023
Book value, 12/31/2011	\$15,786

### Note 5 Deposits and Investment Risk

#### **Investments**

Ohio Revised Code Section 5505.06 grants "full power" to the Retirement Board to invest the system's assets pursuant to a prudent person standard. This standard provides that "the board and other fiduciaries shall discharge their duties with respect to the funds solely in the interest of the participants and beneficiaries; for the exclusive purpose of providing benefits to participants and their beneficiaries and defraying reasonable expenses of administering the system; with care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims; and by diversifying the investments of the system so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so."

Total Investments at Fair Value December 31, 2011	16
Domestic equity	\$239,096,459
International equity	116,497,648
Fixed income	172,444,371
Real estate	32,317,937
Private equity	73,417,205
Hedge funds	55,015,563
Total investments	\$688,789,183

All investments, both domestic and international, are registered in the name of HPRS.

#### **Deposits**

HPRS cash balances consist of an operating cash account held at PNC Bank, cash on deposit with the State Highway Patrol Federal Credit Union, and excess investment cash held by the custodian, PNC Bank. Cash balances are either interest-bearing or invested in highly-liquid debt instruments with an original maturity of three months or less. At December 31, 2011, the carrying value of all deposits was \$10,640,944 (including money market funds of \$6,946,180), as compared to bank balances of \$4,031,549. The difference in the carrying amount and the bank balances is caused by outstanding warrants and deposits in transit.

#### **Concentration of Credit Risk**

Concentration of credit risk is the risk of inability to recover the value of deposits, investments, or collateral securities in the possession of an outside party.

Investment managers are expected to maintain diversified portfolios by sector and issuer. Pursuant to its investment policy, and excluding U.S. government securities, HPRS has no more than ten percent of the fixed income portfolio invested in the securities of any one issuer, and no more than five percent in any one issue.

#### Credit Risk

Credit risk is the risk that an issuer or counterparty to an investment will be unable to fulfill its obligations. HPRS does not have a policy to limit credit risk.

HPRS exposure to credit risk on fixed income securities, based on S&P Quality Ratings, is as follows:

S&P Quality Ratings December 31, 2011	
	ФЭ C 7 C C C
AAA	\$36,765,655
AA	55,778,578
A	31,382,803
BBB	16,301,446
ВВ	2,921,367
В	6,117,693
CCC	3,137,482
CC	-
Unrated	20,039,347
Total Investments	\$172,444,371

# **Foreign Currency Risk**

Foreign currency risk is the risk that changes in exchange rates between the U.S. dollar and foreign currencies could adversely affect an investment's fair value. HPRS does not have a policy to limit foreign currency risk. HPRS exposure to currency exchange risk in its commingled international equity investments, stated in U.S. dollars, is as follows:

International Equity Secur December 31, 2011	ities	
December 31, 2011		
Currency	Allocation	Fair Value
Argentine Peso	0.03%	\$34,710
Australian Dollar	2.95	3,434,159
Bahamas Dollar	0.09	107,601
Bermuda Dollar	0.07	79,833
Brazilian Real	4.01	4,669,842
British Pound	14.01	16,324,859
British Virgin Island	0.00	3,471
Canadian Dollar	6.14	7,148,439
Cayman Island	0.03	41,652
Chilean Peso	0.31	356,293
Chinese Renminbi	0.18	204,790
Columbian Peso	0.43	497,827
Czech Koruna	0.06	68,896
Danish Krone	1.05	1,222,980
Egyptian Pound	0.08	99,660
Euro Currency	19.75	23,005,824
Hong Kong Dollar	6.14	7,150,319
Hungarian Forint	0.03	31,239
Indian Rupee	1.95	2,273,854
Indonesian Rupiah	0.39	456,891
Israeli New Shekel	0.42	491,764
Japanese Yen	8.64	10,065,476
Kenya Shilling	0.01	6,868
Malaysian Ringgit	0.19	220,245
Mexican Peso	1.06	1,231,846
New Zealand Dollar	0.04	51,150
Nigerian Naira	0.06	66,963
Norwegian Krone	1.22	1,422,692
Panamanian Balboa	0.01	6,942
Peruvian New Sol	0.05	62,478
Philippine Peso	0.67	776,599
Polish Zloty	0.01	13,884
Russian Ruble	0.60	704,615
Singapore Dollar	0.65	761,267
South African Rand	1.37	1,591,574
South Korean Won	1.74	2,030,703
Swedish Krona	1.15	1,337,157
Swiss Franc	5.30	6,177,333
Taiwan New Dollar	0.96	1,122,706

Thailand Bhat	0.34	400,131
Turkish new Lira	0.47	541,818
Total held in foreign currencies	82.66	96,297,350
Held in U.S. Dollars	15.49	20,200,298
Total	100.00%	\$116,497,648

#### **Interest Rate Risk**

Interest rate risk is the risk that an interest rate change could adversely affect an investment's fair value. HPRS does not have a policy to limit interest rate risk.

The reporting of effective duration in the table below quantifies, to the fullest extent possible, the interest rate risk of the system's fixed income assets.

Investment Maturities December 31, 2011	
Less than 1 year	\$13,572,913
1 - 5 years	81,109,414
Greater than 5, up to 10 years	42,808,111
Greater than 10 years	34,953,933
Total	\$172,444,371

#### **Custodial Credit Risk**

Custodial credit risk is the risk that, in the event of a failure of a depository institution or counterparty to a transaction, HPRS will be unable to recover the value of deposits, investments, or collateral securities in the possession of an outside party.

All investments and deposits are held in the name of HPRS or its nominee by the Treasurer of State of Ohio as custodian. Bank balances are insured up to \$250,000 by the Federal Deposit Insurance Corporation. Credit union balances are insured up to \$250,000 by the National Credit Union Administration. The remaining deposits are covered by collateral held in the name of HPRS's pledging financial institution, as required by state statute.

#### **Note 6 Derivatives**

During the year ending December 31, 2010, HPRS adopted GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*. GASB 53 was issued to address the recognition, measurement, and disclosure of information regarding derivative instruments entered into by state and local governments.

A derivative is an investment vehicle that derives its value from another instrument or index. Derivatives are primarily used to maximize yields and offset volatility caused by interest rate and currency fluctuations. These instruments leave investors exposed to various credit, market, and legal risks.

At December 31, 2011, HPRS did not have any direct investments in derivatives; however, it held shares in commingled funds that had incidental exposure to derivatives.

## Note 7 Pension and OPEB Benefits for Employees

#### **Pension**

The employees of HPRS are members of the Ohio Public Employee Retirement System (OPERS), which administers three separate pension plans as described below:

- 1. The Traditional Pension Plan a cost sharing, multiple-employer defined benefit pension plan.
- 2. The Member-Directed Plan a defined contribution plan in which the member invests both member and employer contributions (employer contributions vest over five years at 20% per year). Under the Member-Directed Plan, members accumulate retirement assets equal to the value of member and (vested) employer contributions, plus any investment earnings.
- 3. The Combined Plan a cost sharing, multiple-employer defined benefit pension plan. Under the Combined Plan, employer contributions are invested by OPERS to provide a formula retirement benefit similar in nature to the Traditional Pension Plan benefit. Member contributions, the investment of which are self-directed by the members, accumulate retirement assets in a manner similar to the Member-Directed Plan.

OPERS provides retirement, disability, survivor and death benefits and annual costof-living adjustments to members of the Traditional Pension and Combined Plans. Members of the Member-Directed Plan do not qualify for ancillary benefits.

Authority to establish and amend benefits is provided in Chapter 145 of the Ohio Revised Code.

The Ohio Revised Code provides statutory authority for member and employer contributions. For 2011, member and employer contribution rates were consistent across all three plans. The 2011 member contribution rate was 10.0% of covered payroll. The 2011 employer contribution rate was 14.0% of covered payroll. HPRS employer contributions to OPERS for the years ending December 31, 2011, 2010, and 2009, were \$75,680, \$83,141, and \$99,963, respectively, which were equal to the required contributions for each year.

#### **OPEB**

As described above, OPERS administers three separate pension plans — the Traditional Pension Plan, the Member-Directed Plan, and the Combined Plan.

OPERS maintains a cost-sharing multiple employer defined benefit post-employment health care plan, which includes a medical plan, prescription drug program, and Medicare Part B premium reimbursement to qualifying members of both the Traditional Pension and the Combined Plans. Members of the Member-Directed Plan do not qualify for ancillary benefits, including post-employment health care coverage.

In order to qualify for post-employment health care coverage, age and service retirees under the Traditional Pension and Combined Plans must have ten or more years of qualifying Ohio service credit. Health care coverage for disability benefit recipients and qualified survivor benefit recipients is available. The health care coverage provided by OPERS meets the definition of an "other post-employment benefit" as described in GASB Statement 45.

The Ohio Revised Code permits, but does not mandate, OPERS to provide OPEB benefits to its eligible members and beneficiaries. Authority to establish and amend benefits is provided in Chapter 145 of the Ohio Revised Code.

OPERS issues a stand-alone financial report. Interested parties may obtain a copy by writing OPERS, 277 East Town Street, Columbus OH 43215-4642, or by calling 614-222-5601 or 800-222-7377.

#### **Funding Policy**

The Ohio Revised Code provides the statutory authority for public employers to fund post-employment health care through contributions to OPERS. A portion of each employer's contribution to OPERS is set aside for the funding of post-employment health care benefits.

Employer contribution rates are expressed as a percentage of the covered payroll of active members. In 2011, state and local employers contributed at a rate of 14.0% of covered payroll. The Ohio Revised Code currently limits the employer contribution to a rate not to exceed 14.0% of covered payroll for state employer units. Active members do not make contributions to the OPEB Plan.

OPERS's post-employment health care plan was established under, and is administrated in accordance with, Internal Revenue Code 401(h). Each year, the OPERS Board of Trustees determines the portion of the employer contribution rate that will be set aside for funding of post-employment health care benefits. The portion of employer contributions allocated to health care was 4.0% for 2011. The OPERS Board of Trustees is also authorized to establish rules for the payment of a portion of health care coverage by retirees and surviving beneficiaries. Payment amounts vary depending on the number of covered dependents and the coverage selected.

#### **Annual OPEB Cost**

The rates stated above are the contractually required contribution rates for OPERS. HPRS employer contributions to OPERS for OPEB benefits for the year ending December 31, 2011, was \$21,623, which was equal to the required contributions for the year.

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

### **Health Care Preservation Plan**

The Health Care Preservation Plan ("HCPP"), adopted by the OPERS Board of Trustees on September 9, 2004, was effective January 1, 2007. Member and employer contribution rates for state and local employers increased on January 1 of each year from 2006 to 2008. These rate increases allowed additional funds to be allocated to the health care plan.

### Note 8 Risk Management

HPRS purchases insurance coverage for general liability, property damage, employee, and public official liability with varying policy limits. In the past three years, no settlements have exceeded insurance coverage, and coverage has not been significantly reduced.

## **Note 9** Contingent Liabilities

HPRS is a party to various litigation actions. While the final outcome of any action can not be determined, management does not expect that the liability, if any, for these legal actions will have a material adverse effect on the financial position of HPRS.

# **Required Supplementary Schedules**

Schedule of Employer Contributions - Pension Years ending December 31, 2006 - 2011						
Year	Actuarial Annual Required Contributions	Contributions	% Contributed			
2006	\$19,567,233	\$19,263,941	98.45%			
2007	21,666,160	19,956,700	92.11			
2008	21,221,089	20,302,216	95.67			
2009	19,978,427	20,453,914	102.38			
2010	22,872,487	21,211,944	92.74			
2011	26,956,449	22,966,338	85.20			

Schedule of Employer Contributions and Other Contributing Entities - OPEB Years ending December 31, 2008 - 2011							
Year	Actuarial Annual Required Contributions	% Contributed by Employer	Federal Subsidy	Total % Contributed			
2008	\$19,272,604	22.57%	\$317,381	24.22%			
2009	19,378,984	22.09	513,668	24.74			
2010	16,365,476	19.72	471,909	22.61			
2011	18,600,414	8.73	422,640	11.00			

	Schedule of Funding Progress - Pension Years ending December 31, 2005-2010						
				Unfunded			UAAL as
		Actuarially		Actuarially			a % of
		Accrued		Accrued	Assets	Active	Active
Valuation		Liability	Valuation	Liability	as a %	Member	Member
Year	_	("AAL")	Assets	("UAAL")	of AAL	Payroll	Payroll
2005	▶	773,856,164	591,922,200	181,933,964	76.5	83,408,155	218.4
2006		807,760,712	653,493,046	154,267,666	80.9	85,878,329	179.6
2007		866,255,394	700,860,707	165,394,687	80.9	93,752,908	176.4
2008		904,522,377	603,265,803	301,256,574	66.7	94,301,538	319.5
2009		940,084,346	620,356,505	319,727,841	66.0	94,824,789	337.2
2010		1,017,770,449	630,971,500	386,798,949	62.0	94,767,852	408.2

Schedule of Funding Progress - OPEB Years ending December 31, 2007-2010						
	,		Unfunded			UAAL as
	Actuarially		Actuarially			a % of
	Accrued		Accrued	Assets	Active	Active
Valuation	Liability	Valuation	Liability	as a %	Member	Member
Year	("AAL")	Assets	("UAAL")	of AAL	Payroll	Payroll
2007	335,231,779	111,180,356	224,051,423	33.2	93,752,908	239.0
2008	324,170,387	95,785,363	228,385,024	29.5	94,301,538	242.2
2009	287,581,772	100,747,785	186,833,987	35.0	94,824,789	197.0
2010	406,864,423	104,738,337	302,126,086	25.7	94,767,852	318.8

<sup>▲</sup> Plan amendment► Assumption or method change

### **Required Supplementary Schedules**

### 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, 2010

Actuarial Cost Method Entry Age

Amortization Method Level Percent Open

Remaining Amortization Period 30 years for retiree health benefits and pension benefits in determining the

**Annual Required Contribution** 

Asset Valuation Method 4 year smoothed market, 20% corridor

**Actuarial Assumptions** 

Investment Rate of Return 8.0% for pension, 5.0% for OPEB

Projected Salary Increases 4.3 – 14.0%, including wage inflation of 4.0% Cost-of-living Adjustments 3.0% annual increases beginning at age 53

Health Trend Intermediate

### **Notes to Required Supplementary Schedules**

### **Description of Schedule of Funding Progress**

An unfunded actuarially accrued liability exists when (1) actual financial experiences are less favorable than assumed financial experiences and (2) additional benefit obligations are applied to past service. Section 5505.121 of the Ohio Revised Code requires that an unfunded liability be systematically financed over a period of no more than thirty years.

In an inflationary economy, the value of a dollar decreases over time. While member payroll and unfunded actuarially accrued liabilities may be increasing in dollar amounts, the relative percentages of these factors may be declining. To account for this inconsistency, it is useful to measure the quotient of unfunded actuarially accrued liabilities divided by active member payroll. A smaller ratio indicates greater system strength. A declining ratio over time indicates an improving financial position.

# **Supplementary Information**

Schedule of Administrative Expenses Year ending December 31, 2011	
Tear ending December 31, 2011	
Personnel	\$407,897
Professional and technical services	
Computer services	65,678
Actuary	105,925
Education	11,296
Medical consulting	3,125
Audit	17,337
Legal	75,798
Miscellaneous services	30,777
Medical services	4,850
Total professional and technical services	314,786
Communications	
Printing	2,901
Postage	6,053
Telephone	8,286
Total communications	17,240
Other expenses	
Office rent	65,923
Depreciation	4,748
Insurance	19,326
Supplies	5,044
Miscellaneous	5,660
Ohio Retirement Study Council*	254,149
Travel	6,021
Memberships and subscriptions	3,740
New equipment	3,057
Total other expenses	367,668
Total administrative expenses	\$1,107,591

Above amounts do not include investment-related administrative expenses.

<sup>\*</sup>Includes \$251,563.49 paid to Hewitt Ennis Knupp to conduct an independent review and evaluation of HPRS and its investment program as mandated by the Ohio Retirement Study Council (ORSC).

# **Supplementary Information**

Schedule of Investment Expenses Year ending December 31, 2011	
Personnel	\$190,701
Professional and technical services	
Investment services	4,622,137
Monitoring services	168,548
Total professional services	4,790,685
Other expenses	
Due diligence	1,306
Computer services	7,298
Memberships and subscriptions	985
Printing and supplies	322
Total other expenses	9,911
Total investment expenses	\$4,991,297

Payments to Consultants Year ending December 31, 2011		
Consultant	Fee	Service
Hartland & Co.	\$215,966	Investment
Gabriel, Roeder, Smith & Company	105,925	Actuarial
Schottenstein, Zox & Dunn	8,255	Legal
Global Trading Analytics, LLC	5,000	Investment
Kennedy Cottrell Richards LLC	16,755	Auditing
Earl N. Metz, M.D.	3,125	Medical
Tucker Ellis & West LLP	32,184	Legal
Total	\$387,210	

See the Investment Section, pages 52-53, for payments to investment managers and brokers.



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# INDEPENDENT ACCOUNTANTS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS REQUIRED BY GOVERNMENT AUDITING STANDARDS

Ohio State Highway Patrol Retirement System 6161 Busch Boulevard, Suite 119 Columbus, Ohio 43229-2553

To the Board of Trustees:

We have audited the basic financial statements of the Ohio State Highway Patrol Retirement System (HPRS) as of and for the year ended December 31, 2011, and have issued our report thereon dated June 26, 2012. 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 the Comptroller General of the United States' *Government Auditing Standards*.

### **Internal Control Over Financial Reporting**

In planning and performing our audit, we considered the HPRS' internal control over financial reporting as a basis for designing our audit procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of opining on the effectiveness of the HPRS' internal control over financial reporting. Accordingly, we have not opined on the effectiveness of the HPRS' internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses. Therefore, we cannot assure that we have identified all deficiencies, significant deficiencies or material weaknesses. However, as described in the accompanying schedule of findings we identified a certain deficiency in internal control over financial reporting, that we consider a material weakness.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, when performing their assigned functions, to prevent, or detect and timely correct misstatements. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and timely corrected. We consider finding 2011-01 described in the accompanying schedule of findings to be a material weakness.

### **Compliance and Other Matters**

As part of reasonably assuring whether the HPRS' financial statements are free of material misstatement, we tested its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could directly and materially affect 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 an opinion. The results of our tests disclosed no instances of noncompliance or other matters we must report under *Government Auditing Standards*.

HPRS' response to the finding identified in our audit is described in the accompanying schedule of findings. We did not audit HPRS' response and, accordingly, we express no opinion on it.

We intend this report solely for the information and use of management, the audit committee, the Board of Trustees, others within the HPRS, and the Auditor of State of Ohio. We intend it for no one other than these specified parties.

Kennedy Cottrell Richards LLC

June 26, 2012

# OHIO STATE HIGHWAY PATROL RETIREMENT SYSTEM FRANKLIN COUNTY, OHIO

### **SCHEDULE OF FINDINGS**

**DECEMBER 31, 2011** 

### 2011-01 MATERIAL WEAKNESS: FINANCIAL STATEMENT PREPARATION

The compilation and presentation of materially correct financial statements and the related footnotes is the responsibility of management. It is important that management develop control procedures related to drafting financial statements and footnotes that enable management to prevent and detect potential misstatements in the financial statements and footnotes prior to audit. It is also important to note that independent auditors are not part of an entity's internal control structure and should not be relied upon by management to detect misstatements.

We noted certain misstatements that we determined to be material to the Combining Statement of Changes in Plan Net Assets and the Notes to the Financial Statements. According to management at HPRS, the misstatements were a result of the departure of the Chief Financial Officer (CFO) and Executive Director, both of whom have been responsible for the Comprehensive Annual Financial Report (CAFR) preparation internal control process in prior years. These departures resulted in the CAFR being prepared by less experienced personnel.

We provided adjusting entries to HPRS who subsequently corrected the misstatements. The misstatements are a strong indicator that the HPRS did not have sufficient internal control procedures in place related to financial reporting.

We recommend the HPRS implement control procedures related to financial reporting that enable management to identify, prevent, detect, and correct potential misstatements in the financial statements and footnotes prior to the start of the audit. Control procedures could include a separate review and analysis of the financial statements and related journal entries by someone knowledgeable of generally accepted accounting principles and providing appropriate levels of training to those responsible for financial reporting.

### Officials Response:

We recognize there were control weaknesses in 2011 primarily due to the departures of the previous executive director and CFO. The weaknesses identified have been corrected, and the necessary journal entries have been made. Internal controls have been implemented to address these issues.

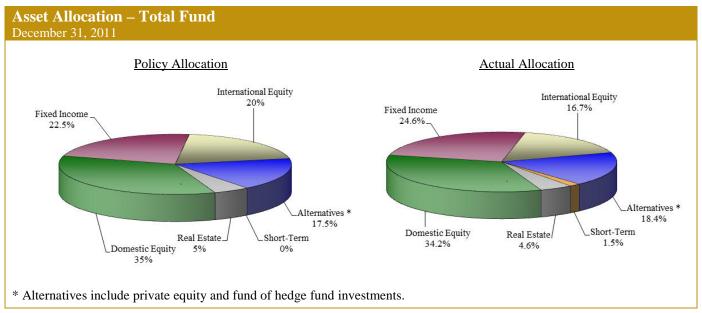
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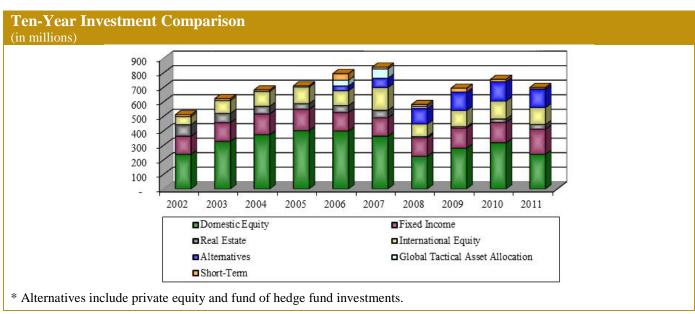


# **Investment Section**

Investment Summary December 31, 2011				
	Fair Value	Actual	Target	Range
Domestic equity	\$239,096,459	34.2%	35.0%	30-40%
Fixed income	172,444,371	24.6	22.5	17.5-27.5
Alternatives *	128,432,768	18.4	17.5	12.5-22.5
International equity	116,497,648	16.7	20.0	15-25
Short-term	10,640,944	1.5	0.0	0 - 5
Real estate	32,317,937	4.6	5.0	0 - 10
Net portfolio value	\$699,430,127	100.0%	100.0%	

<sup>\*</sup> Alternatives include private equity and fund of hedge fund investments.





## **Report on Investment Activity**

### **Economic and Market Review - 2011**

The global economy endured an almost unimaginable series of challenges in 2011. These included a tsunami and nuclear plant accident in Japan, regime changes in the Arab world, political gridlock in Washington and a sovereign debt crisis in the euro zone. Considering the potential outcomes that any of these events could have produced, the global economy displayed an impressive level of resiliency.

Aside from the tsunami, the biggest surprise may have been the improvement in the US economy, which grew a respectable 3.0%. Early in the year, economists were concerned about the high level of unemployment and a housing market that was continuing to deteriorate. By spring, fears of the economy sinking back into a recession were widespread. However, as the year progressed, employment and housing showed some tentative signs of improvement and the export sector remained strong.

Late spring saw the blooming of the sovereign debt crisis in the euro zone. A bailout deal for Portugal was quickly negotiated; but Greece's debt problem proved more complex and would not be resolved until early 2012. Much of the credit for this resolution goes to the European Central Bank, which provided liquidity to European banks and encouraged policymakers and creditors to work together. Nonetheless, it was clear that the euro zone was headed back in to a recession by the end of the year.

Slower global growth in the developed economies meant that the export-dependent economies of the developing countries (e.g., China, Brazil and India) encountered

headwinds. Fortunately, domestic demand from these countries' burgeoning middle classes enabled these economies to continue to experience positive growth rates.

The performance of the financial markets mirrored the turmoil in the global economy. 2011 was characterized by high levels of market volatility and great uncertainty among investors. This uncertainty manifested itself in record demand for classic, safe-haven investments. Gold reached a high of nearly \$1900 per ounce and interest rates on US government debt reached a six-decade low.

Predictably, returns of the broad market stock indices were generally in negative territory. A notable exception was the S&P 500 Index – a proxy for the US market – which rose 2.1% for the year. The international-developed markets – as measured by the MSCI Europe, Australasia, and Far East Index – declined 11.7%. The emerging markets were the hardest hit, declining 18.2%. This level of decline reflected investors' belief that the emerging markets are especially risky during times of market stress.

As mentioned above, the global bond market was the beneficiary of investors search for safety. The BarCap Global Aggregate Index – a measure of global bond returns – rose 5.6%. Reflecting the safe-haven status of the United States, the BarCap Long-Term Government Index rose an amazing 29.14% for the year.

Market data courtesy of Zephyr

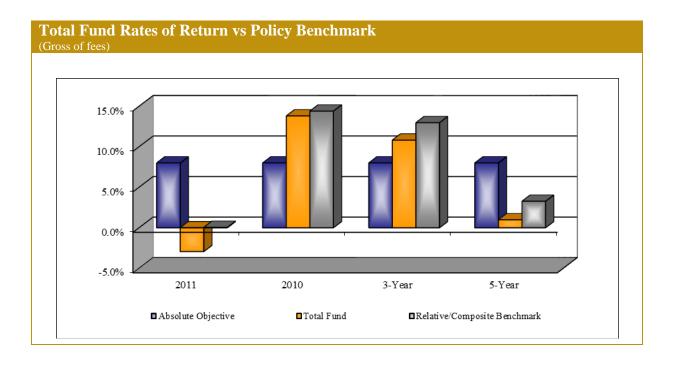
Source: Hartland & Co.

Schedule of Investment Results Year ending December 31, 2011				
	2011	2010	3-Year	5-Year
Domestic Equity	(1.0)%	20.9%	16.8%	0.6%
S&P 500	2.1	15.1	14.1	(0.3)
Russell 3000	1.0	16.9	14.9	0.0
International Equity	(14.5)	11.2	7.8	(3.0)
MSCI ACWI ex US	(13.3)	11.6	11.2	(2.5)
Fixed Income	7.5	7.7	9.5	6.6
Barclays Capital Aggregate	7.9	6.6	6.8	6.5
Real Estate	(3.6)	0.5	(3.9)	(6.3)
NCREIF	14.3	13.1	2.4	3.1
Alternatives <b>A</b>	(7.3)	7.7	4.0	0.6
HFRI Fund of Funds Composite	(5.7)	5.7	3.6	(0.8)
Wilshire 5000 + 3%	8.1	14.9	4.8	2.5
Total Fund	(2.9)	13.8	10.8	1.0
Absolute Objective	8.0	8.0	8.0	8.0
Relative/Composite Benchmark	0.1	14.4	13.0	3.3

- ▲ Includes private equity and hedge funds
- ▶ Relative Composite Benchmark: 65% Russell 3000, 15% MSCI ACWI ex US, 20% Barclays Capital Aggregate

All returns are calculated gross-of-fees on market value using time-weighted rates of return.

Source: Hartland & Co.



Domestic Equity Holdings December 31, 2011			
Security	Shares	Market Price	Fair Value
Exxon Mobil Corp	27,100	\$84.76	\$2,296,996
Chevron Corporation	17,800	106.40	1,893,920
AT&T Inc	59,000	30.24	1,784,160
JPMorgan Chase & Co	51,200	33.25	1,702,400
General Electric Co	89,700	17.91	1,606,527
Pfizer Inc	71,200	21.64	1,540,768
Procter & Gamble Co	22,000	66.71	1,467,620
Apple Inc	3,500	405.00	1,417,500
Johnson & Johnson	21,600	65.58	1,416,528
Microsoft Corp	52,400	25.96	1,360,304
Other	6,205,509		125,040,737
Total domestic equity securities	6,621,009		\$141,527,460
<b>Domestic Equity Commingled Funds</b>			
DFA Small Cap Subtrust			\$14,259,839
SSGA S&P 500 Flagship Fund			43,276,298
Wellington Mgmt Diversified Growth			40,032,862
Total domestic equity commingled funds			\$97,568,999
Total domestic equity			\$239,096,459

International Equity Holdings			
December 31, 2011			
Security	Shares	Market Price	Fair Value
Schlumberger Ltd	6,402	\$68.31	\$437,321
Everest Re Group Ltd	5,031	84.09	423,057
Elan	27,240	13.74	374,278
Statoil ASA	13,500	25.61	345,735
Koninklijke Phillips Electronics	15,700	20.95	328,915
Signet Jewelers	6,406	43.96	281,607
Teva Pharmaceutical	5,700	40.36	230,052
Penn West Pete Ltd	11,020	19.80	218,196
Ingersoll-Rand	7,153	30.47	217,952
Total SA	4,200	51.11	214,662
Other	296,564		4,946,189
Total international equity securities	398,916		\$8,017,964
International Equity Commingled Funds			
World Asset Management Foreign Equity Fund			\$34,710,087
Artio International Equity II Group Trust			21,357,507
Manning & Napier Overseas Series			21,491,828
DFA International Small Cap Value			9,064,091
Driehaus International Small Cap Growth			4,686,123
OFI Emerging Markets			17,170,048
Total international equity commingled funds			\$108,479,684
Total international equity			\$116,497,648

All values are stated in U.S. dollars.

A complete list of holdings is available upon request.

Fixed Income Holdings		
December 31, 2011		
Security	Par Value	Fair Value
Federal Home Loan Mtg Corp Series 2705 Class Ld, 4.500%, Due 03/15/2032	\$2,500,000	\$2,634,400
Federal Natl Mtg Assn Struct Nts Call 9/28/12, 1.000%, Due 09/28/2015	2,500,000	2,512,750
Federal Natl Mtg Assn Pool #AA4392, 4.000%, Due 04/01/2039	2,403,882	2,528,115
Federal Home Loan Mtg Corp Gold Pool #J12635, 4.000%, Due 07/01/2025	2,358,218	2,478,629
Tennessee Valley Authority Cons Bds, 7.125%, Due 05/01/2030	1,750,000	2,663,168
USA Treasury Note, 3.500%, Due 02/15/2039	1,700,000	1,908,777
General Elec Cap Corp Sr Unsec Ser Mtn, 5.400%, Due 02/15/2017	1,500,000	1,673,760
Kentucky Asset/ Liabiltiy Com Taxable, 4.104%, Due 04/01/2019	1,500,000	1,634,730
Federal Natl Mtg Assn Pool #972077, 4.500%, Due 02/01/2023	1,475,511	1,577,129
Federal Natl Mtg Assn Pool #Ae0212, 5.500%, Due 12/01/2027	1,420,819	1,553,665
Other	46,271,973	49,893,408
Total fixed income securities	\$65,380,403	\$71,058,531
Fixed Income Commingled Funds		
JP Morgan Investment Management		\$55,677,313
Legg Mason – High Yield Portfolio		13,706,429
Wellington Global Fixed Income		32,002,098
Total fixed income commingled funds		\$101,385,840
Total fixed income		\$172,444,371

Real Estate Holdings			
December 31, 2011			
Asset	Shares	Market Price	Fair Value
6161 Busch Blvd., Columbus, OH 43229			\$1,415,000
6500 Busch Blvd., Columbus, OH 43229			910,000
Corrections Corp Amer New Com New REIT	7,252	20.37	147,723
Hospitality Pptys Tr Sh Ben Int REIT	4,774	22.98	109,707
Public Storage REITS	800	134.46	107,568
Brandywine Rlty Tr sh Ben Int REIT	8,611	9.50	81,805
HCP Inc REIT	1,867	41.43	77,350
Equity Residential Sh Ben Int REIT	1,354	57.03	77,219
Jones Lang LaSalle Inc REIT	1,201	61.26	73,573
Boston Pptys Inc REIT	669	99.60	66,632
Other	33,064		651,548
Total real estate assets	59,592		\$3,718,125
Real Estate Commingled Funds			
Henderson Global Investors			\$4,449,817
Oaktree Real Estate Opportunities Fund IV			11,399,084
Oaktree Real Estatae Opportunities Fund V			8,505,256
Pyramis Global Advisors (FREG II)			1,058,759
Pyramis Global Advisors (FREG III)			3,186,896
Total real estate commingled funds			\$28,599,812
Total real estate			\$32,317,937

All values are stated in U.S. dollars.
A complete list of holdings is available upon request.

Private Equity Holdings December 31, 2011	
Asset	Fair Value
CSFB Private Equity Opportunities Fund LP	\$11,675,656
Issuer Entity	993,731
Kayne Anderson Energy Fund IV	2,216,929
Kayne Anderson Energy Fund V	3,137,593
Kayne Anderson Mezzanine Partners	2,458,572
Kayne Anderson MLP Fund	8,486,017
Oaktree PPIP Private Fund LP	3,166,070
Pantheon USA Fund VII, LP	13,384,695
Timbervest	27,897,942
Total private equity	\$73,417,205

Fund of Hedge Funds Holdings December 31, 2011	
Asset	Fair Value
Evanston Capital Weatherlow Offshore Fund II	\$17,911,496
Feingold O'Keefe Distressed Loan Fund	5,181,100
GAM Fund Management Ltd.	14,642,250
Protégé Partners, LP	7,644,559
Protégé Opportunistic Fund	1,149,800
Sankaty / Prospect Harbor Credit Partners	2,785,695
Seix Credit Opportunities Fund, LLC	5,700,666
Total private equity	\$55,015,563

All values are stated in U.S. dollars.

A complete list of holdings is available upon request.

Summary Schedule of Investment Year ending December 31, 2011	Manager Fees		
	Stuctory	Aggeta Managad	Food
Manager Cash and Short-term Investments	Strategy	Assets Managed	Fees
The Vanguard Group	Money Market	\$ -	\$7,408
Domestic equity	Wioney Warket	ψ -	Ψ7,400
Ancora Investment Advisors	Micro Cap	5,039,589	54,065
Brandywine Global Investment Mgmt LLC	Small/Mid Cap Value	5,930,651	55,833
DePrince, Race & Zollo, Inc.	Large Cap Value	19,283,544	111,602
Dimensional Fund Advisors	Small Cap Blend	14,259,839	52,897
Fred Alger Management, Inc.	Small Cap Growth	8,885,286	141,057
James Investment Research	Micro Cap	5,629,636	55,052
Loomis Sayles	Small/Mid Cap Core	5,025,030	52,938
LSV Asset Management	Large Cap Value	27,112,868	86,490
State Street Global Advisors	Large Cap Blend	43,276,298	16,039
T. Rowe Price	Large Cap Blend	41,298,469	175,659
Wellington Mgmt Co., LLP	Large Cap Growth	40,032,862	236,074
Westfield Capital Management	Small/Mid Cap Growth	13,921,513	209,961
World Asset Management	Mid-Cap and Russell 2000	23,836,995	41,462
International Equity		,	,
Artio Global Management LLC	Core	21,357,506	203,655
Dimensional Fund Advisors	Small Cap Value	9,064,091	74,049
Driehaus Capital Management	Small Cap Growth	4,686,123	98,701
Manning & Napier Advisors, Inc.	Large Cap Growth	21,491,828	168,667
OFI Trust Company	Emerging Markets	17,170,048	33,554
World Asset Management	ADR's	34,710,087	31,290
Fixed Income		- ,,	- ,
Johnson Institutional Counsel	Core/Short-term	71,058,530	131,878
JP Morgan Fleming Asset Management	Intermediate-term	55,677,313	168,539
Legg Mason	High Yield	13,706,429	90,588
Wellington Global Fixed Income	Global Bond	32,002,098	_
Real Estate			
HPRS Internal Staff	Office Buildings	2,325,000	-
Pyramis Global Advisors	Specialty Real Estate	4,245,655	65,511
Henderson Global Investors	Specialty Real Estate	4,449,817	18,999
Oaktree Capital Management LP	Specialty Real Estate	19,904,340	284,892
Private Equity			
Credit Suisse Securities LLC	Fund of funds	11,675,656	80,909
Kayne Anderson Capital Advisors, LP	Energy, MLP, and Mezzanine	16,299,111	377,935
Oaktree Capital Management LP	PPIP	3,166,070	9,704
Issuer Entity	Mortgages	993,731	-
Pantheon USA Fund VII,L.P.	Fund of funds	13,384,695	112,500
TimberVest	Real Estate	27,897,942	268,837
Hedge Funds			
Evanston Capital Management LLC	Fund of Funds	17,911,496	172,119
Feingold O'Keeffe Capital	Distressed Securities	5,181,100	111,889
GAM Fund Mgmt Ltd	Fund of Funds	14,642,250	169,248
NB Alternative Investment Management	Fund of Funds	· -	-
Protégé Partners, LLC	Fund of Funds	8,794,359	104,024
Sankaty Advisors, LLC	Distressed Securities	2,785,695	124,670
Seix Investment Advisors, LLC	Distressed Securities	5,700,663	209,281
Total		\$688,789,183	\$4,407,976

Summary Schedule of Broker Year ending December 31, 2011	Fees		
Broker	Fees	Shares	Average Cost
KeyBanc Capital	\$123.00	12,269,500	\$0.000
Merrill Lynch	10,022.58	5,227,694	0.002
BNY Capital Markets	-	4,712,000	0.000
Morgan Keegan & Co	46.00	4,501,500	0.000
Raymond James & Associates	562.00	4,191,928	0.000
Stephens Inc.	40.00	3,593,823	0.000
Wells Fargo	268.32	3,025,551	0.000
Duncan Williams	-	2,925,000	0.000
Robert Baird	29,766.21	2,876079	0.010
Cabrera Capital	27,140.81	2,714,081	0.010
Clarke G.X. & Co	-	2,500,000	0.000
RBC Capital Markets	2,663.65	2,351,070	0.001
JP Morgan Securities	1,994.15	2,206,493	0.001
First Tennessee	-	2,000,000	0.000 0.000
Cortview Capital Citigroup Global	1,165.80	1,800,000 1,745,450	0.000
National Financial Services Corp	18.00	1,600,600	0.001
Morgan Stanley	1,282.12	1,567,944	0.000
Oppenheimer & Co	46.13	1,501,371	0.000
Jeffries & Co	8,078.10	1,268,840	0.006
Ross Sinclair & Associates	-	1,200,000	0.000
JPM Chase IPA	-	1,000,000	0.000
Morgan Stanley DW Inc	-	1,000,000	0.000
Deutsche Morg Grenfell	2,370.32	750,234	0.003
Cap Institutional Services Inc	10,110.61	674,036	0.015
JPMorgan Chase Bank	-	600,000	0.000
Knight Equity Markets	7,658.91	564,337	0.014
UBS Financial Services	631.72	551,200	0.001
JP Morgan Clearing Corp	-	500,000	0.000
Mutual Fund Agent	-	458,716	0.000
Ivy Securities	3,342.02	334,202	0.010
Cantor Fitzgerald & Co	2,642.53	259,431	0.010
Credit Suisse	2,491.81	201,847	0.012
Barclays Capital	1,846.60	144,795	0.013
Nomura Securities	1,278.17	118,860	0.011
UBS Securities LLC	1,317.18	99,295	0.013
Weeden & Co	986.74	61,480	0.016
Investment Technology Group Inc	772.20	56,940	0.014
Assent LLC	319.90	45,700	0.007
Other	8,074.34	342,930.00	2.025
Total	\$127,059	73,542,927	\$2.196

### Introduction

The State Highway Patrol Retirement System was established by section 5505.02 of the Ohio Revised Code (ORC) for State Highway Patrol employees, as defined in division (A) of ORC section 5505.01.

Pursuant to ORC section 5505.04, the administration and management of the Highway Patrol Retirement System are vested in the State Highway Patrol Retirement Board. Members of the State Highway Patrol Retirement Board are the trustees of the funds created by ORC section 5505.03. The board has full power to create and adopt, in regular meetings, an investment committee, policies, objectives, or criteria for the operation of the investment program that include asset allocation targets and ranges, risk factors, asset class benchmarks, time horizons, total return objectives, and performance evaluation guidelines. The funds created by ORC section 5505.03 and managed by the Retirement Board are the employees' savings fund, the employer's accumulation fund, the pension reserve fund, the survivors' benefit fund, the income fund, and the expense fund. These funds are for the exclusive purpose of operating the Retirement System and providing benefits to any qualified employee in the uniform division of the State Highway Patrol, any qualified employee in the radio division hired prior to November 2, 1989, and any State Highway Patrol cadet attending training school pursuant to ORC section 5503.05, whose attendance at the school began on or after June 30, 1991. "Employee" includes the superintendent of the State Highway Patrol.

### **Purpose and Duties**

The primary objective of the State Highway Patrol Retirement System is to provide eligible members and beneficiaries with scheduled pension benefits. Although the State Highway Patrol Retirement System 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 the fund. In particular, the *prudent person* guidelines are to be followed with regard to the investment management of the fund. These guidelines require the Board and other system fiduciaries to exercise 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. A secondary objective of the fund is to maintain a sufficient degree of liquidity in order to meet unanticipated demands and changing environments. Members of the Retirement Board and other fiduciaries of the Retirement System fully accept the duty to incur only reasonable expenses in the operation of the State Highway Patrol Retirement System.

### **Investment Goals**

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. 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.

#### **Policies**

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.

Asset classes and ranges considered appropriate for investment of fund assets are to be determined by the Board in accordance with these investment guidelines. Asset class constraints only apply to separate account mandates.

Assignment of responsibilities for each asset category, including 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).

The Board will, at least annually, establish a policy with the goal to increase utilization of Ohio-qualified investment managers, when an Ohio-qualified investment manager offers quality, services, and safety comparable to other investment managers otherwise available.

The Board will, at least annually, establish a policy with the goal to increase utilization of Ohio-qualified agents for the execution of domestic equity and fixed income trades on behalf of the retirement system, when an Ohio-qualified agent offers quality, services, and safety comparable to other agents otherwise available.

In order to achieve the return objectives, the fund will employ the following strategies for specific asset classes:

- 1. U.S. equities will represent from 30 to 40 percent of the market value of total fund assets with a targeted average of 35 percent. The term "equities" includes common stock, convertible bonds, and convertible stock.
- 2. Non-U.S. equities will represent from 15 to 25 percent of the market value of total fund assets with a targeted average of 20 percent.
- 3. U.S. fixed income obligations, including cash, will represent from 17.5 to 27.5 percent of the market value of total fund assets with a targeted average of 22.5 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.
- 4. Investments in real estate and alternatives will represent from 17.5 to 27.5 percent of the market value of total fund assets with a targeted average of 22.5 percent. The term "alternatives" includes hedge funds, private equity, and Global Tactical Asset Allocation.

### Short-Term

The purpose of the short-term cash component is to provide liquidity for short-term obligations.

Cash equivalent investments may include the following:
☐ Short-Term Maturity Securities
☐ U.S. Treasury Bills
☐ U.S. Government Repurchase Agreements
☐ Commercial Paper
☐ Commingled Investment Funds

### Fixed Income

The purpose of the fixed income component is to provide a deflation hedge, to reduce the overall volatility of the pension assets in relation to the liability, and to produce current income.

A core bond allocation will be diversified as to type of security, issuer, coupon, and maturity, qualifying bonds, at the time of purchase, will be rated as investment-grade by at least two nationally-recognized bond rating services. Generally, the average maturity of a fixed income allocation will be ten years or less, although individual securities may be longer.

An alternative bond allocation may invest in (1) high-yield or other non-investment-grade bonds, (2) non-United States bonds, and (3) bonds issued by emerging countries.

No more than ten percent of a fixed income allocation will be invested in the securities of any one issue, 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 a combination of U.S. government bonds, U.S. agency bonds, and domestic corporate bonds.

Managers are prohibited from using derivative instruments.

### **Equities**

The purpose of the equity component is to provide for growth in principal, while at the same time preserve the purchasing power of the portfolio's assets. It is recognized that the equity in the portfolio will represent a greater assumption of market volatility and risk as well as high total return over the long-term.

Qualifying equities will be listed on an established stock market and be readily marketable. They may be held in separate or commingled accounts.

At least 67% of the value of a large cap domestic mandate will be invested in securities with a market capitalization of more than \$5 billion.

At least 67% of the value of a small/mid cap domestic mandate will be invested in securities with a market capitalization of more than \$500 million.

At least 50% of the value of an international mandate (excluding small cap) will be invested in securities with a market capitalization of more than \$1 billion. Each equity manager will diversify the portfolio in an attempt to minimize the impact of substantial losses in any specific industry or issuer.

An equity manager may not
<ul> <li>□ hold more than 15% of the account value in a single issuer</li> <li>□ where a sector is greater than 10% of the benchmark, allow that sector to exceed the lesser of 40% or 1.5 times the sector weighting of the relative benchmark</li> <li>□ where a sector is 10% or less of the benchmark, allow that sector to exceed the greater of 20% or 2.5 times the sector weighting of the relative benchmark</li> <li>□ invest in international-domiciled securities exceeding 20% of portfolio value in a domestic mandate</li> <li>□ allow one country to be more than 15% above the country weighting of the relative benchmark in an international mandate</li> <li>□ invest in emerging markets exceeding 35% of portfolio value in an international</li> </ul>
mandate.  Equity managers are prohibited from investing in the following:  Private placements  Unragistered or restricted stock
<ul> <li>☐ Unregistered or restricted stock</li> <li>☐ Derivatives</li> <li>☐ Margin Trading/Short Sales</li> <li>☐ Commodities</li> <li>☐ Real Estate Property (excluding REITs)</li> </ul>
<ul> <li>☐ Guaranteed Insurance Contracts</li> <li>☐ Securities issued by Highway Patrol Retirement System or its affiliates.</li> </ul>
Real Estate
The purpose of the real estate component is to provide for growth of principal while at the same time preserve the purchasing power of the portfolio's assets. In addition, the real estate component seeks to enhance the overall portfolio by providing income, a hedge on inflation, and modest diversification.
The fund may invest in 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,
<ul> <li>provide diversity among geographical locations, property types, and property sizes,</li> <li>provide relatively stable returns consistent with the overall U.S. commercial real estate market,</li> </ul>
provide a strong current income stream with the potential for long-term principal

growth,

Investment Ob	jectives,	Policies, and	Guidelines
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primarily contain	fully developed,	fully leased	properties, a	nd
minimize the use	of debt financing	<b>5</b> .		

### Alternatives

The purpose of the alternatives component is to provide diversification, risk reduction and to enhance the overall performance characteristics of the portfolio.

The fund may invest in alternatives with individual fund managers or with fund of funds managers.

### **Performance**

Comparative performance measurement of the total fund and its components will be conducted at least quarterly.

Each large cap equity manager is expected to exceed benchmark performance by 100 bps annually over rolling three and five year periods, net-of-fees, and rank in the upper 40 percentile relative to peers.

Each small/mid cap equity and international manager is expected to exceed benchmark performance by 150 bps annually over rolling three and five year periods, net-of-fees, and rank in the upper 40 percentile relative to peers.

All other managers are expected to exceed benchmark performance over rolling three and five year periods, net-of-fees, and rank in the upper 40 percentile relative to peers. The broad benchmarks for each type of manager, subject to revision, are as follows:

Large cap equity – S&P500 Small/mid cap equity – Russell 2500 International equity – MSCI ACWI ex-US Fixed income – Barclays Capital Aggregate Real estate – NCREIF Hedge funds – HFRI Fund of Funds Private equity/GTAA – Wilshire 5000 + 3%, lagged one quarter

Over a market cycle,	the total fund return is expe	cted to exceed the following	ng benchmarks:
□ <b>∧</b>	40 of aial		the foundly seturated

Ш	A minimum return target of eight percent, representing the fund's actuarian
	assumption, and also representing the long-term inflation rate of three percent plus a
	risk premium of five percent.
	A composite reference benchmark composed of 35 percent Russell 3000 Index, 20
	percent MSCI ACWI ex-US Index, 5 percent NCREIF, 12.5% HFRI Fund of Funds,
	5 percent Wilshire 5000 + 3% (lagged one quarter), and 22.5% Barclays Capital
	Aggregate Index.

# **Directed Brokerage**

In separately-managed equity accounts, HPRS investment managers are expected to use brokers that are under contract with HPRS to provide execution-only brokerage. Every five years, these brokers will be selected through a Request for Proposal process. An investment manager may be excused from the directed brokerage requirement if it can document favorable execution.

## **Manager Selection**

Each investment manager will be selected through a Request for Proposal process, as follows:  The Investment Committee will authorize the issuance of an RFP that is posted on the HPRS website and disseminated as a press release to at least three nationally recognized investment trade publications.  Responses that meet the RFP requirements will be subjected to a due diligence analysis by the HPRS investment consultant.  One or more finalists will be selected to be interviewed by the Investment Committee.  The Investment Committee will recommend the hiring of an investment manager to the Retirement Board.  The Investment Committee may recommend the hiring of a separate investment manager to the Retirement Board, contingent upon unsatisfactory contract negotiations with the primary selection.  The Chief Investment Officer will negotiate contract terms with the selected investment manager.  The Chief Investment Officer may conduct an onsite due diligence visit to the selected investment manager's premises.
Roles and Responsibilities  Board
The role of the Board is supervisory, and discretion is delegated to investment managers who must adhere to the general guidelines established by the Board. The primary role of the Board is to
<ul> <li>establish performance goals,</li> <li>identify and review appropriate investment policy and guidelines,</li> <li>retain outside investment and actuarial counsel, and</li> <li>review the results of the fund on a regular basis and implement necessary changes in the investment policies, objectives, asset allocation, and investment managers as needed.</li> </ul>
Investment Committee The Investment Committee will, at least quarterly, review the performance of the overall portfolio and selected components against their investment goals and policies. The Investment Committee will require investment managers to provide a comprehensive written quarterly report that the following:
a review of the HPRS investment,

a report on the investment manager's current investment	outlook or	forecast,	and
a strategy for the future.			

The Investment Committee will, at least biannually, consider whether the manager continues to operate in the manner represented when retained and outlined in the agreement between the Investment Committee and the investment manager. The Investment Committee will require their manager to report key personnel staffing changes to the Investment Committee on or before the effective date of such changes. While the actual frequency and the nature of reviews will vary according to asset class, the liquidity of markets, and perhaps logistics, the regulations above should be seen as the minimum standards for effective monitoring of managers. The elected Chair, or Vice-Chair, will report to the Board at regularly scheduled meetings.

### Staff

The Chief Investment Officer (CIO), who is responsible for the day-to-day management of the investment program, is employed by, and is directly responsible to, the Retirement Board. A complete job description is available from HPRS upon request.

### **Investment Consultant**

An Investment Consultant is employed by, and is directly responsible to, the Retirement Board. The consultant is a fiduciary to the system, attends Investment Committee and Board meetings, provides quarterly investment monitoring reports, and works with the CIO to implement the Investment Policy of the Retirement Board.

### Custodian

As provided in ORC section 5505.11, the Treasurer of State is the custodian of HPRS funds. The Treasurer appoints a banking institution as a subcustodian, which acts as the custodian of HPRS funds. All disbursements are processed under the direction of the Treasurer after authorization by the Board.

### **Investment Managers**

Managers a	re expected to
	acknowledge the acceptance of this document
	act as a fiduciary to the system
	meet with the Board, or Investment Committee when requested, to review investment
;	activity and results
	hold and maintain errors and omissions insurance and provide proof of this insurance
	provide performance measurement data, explanation, and other communication as
1	required by the investment consultant
	provide frequent communication with HPRS and the investment consultant on all
	significant matters pertaining to the investment of assets
	promptly notify HPRS and the investment consultant of any significant changes in the
	manager's investment strategy, organizational structure, financial condition, or
	personnel assigned to manage HPRS assets

vote the	proxies	of the	fund's	assets,	consistent	with	the	manager's	internal	voting
process										

### **Asset Allocation**

The definition of asset allocation targets and ranges is the single most important investment decision that the Board faces. An optimal mix of investments will produce returns that consistently meet the long-term assumed rate of return at a prudent level of risk.

### **Periodic Reviews**

Asset allocation should be reviewed at least annually to ensure that the plan is on track to achieve the investment goals and that all the major assumptions used to establish the plan remain reasonable. A comprehensive review of asset allocation in the form of asset-liability modeling should be conducted every three years, or whenever a major structural change occurs in liabilities or investment assets.

### **Rebalancing Policy**

In order to maintain the desired asset allocation mix, the portfolio will be reviewed quarterly to determine compliance with asset allocation targets and ranges. Strategic decisions will be based on trading costs, liquidity needs, and the relative weighting of each manager.

To the extent that an asset class is outside of the allowable range, the Chief Investment Officer and the investment consultant will develop a plan for compliance. Without formal Board approval, the Chief Investment Officer may authorize one or more rebalancing transactions to implement the plan.

To the extent that an asset class varies from the target, the Chief Investment Officer and the investment consultant may develop a plan for tighter compliance. Provided that rebalancing may be achieved at minimal cost (e.g., through commingled funds with no direct trading expense), without formal Board approval, the Chief Investment Officer may authorize one or more rebalancing transactions to implement the plan.

### **Securities Lending**

The Board may authorize an external service provider to conduct securities lending activities.

### **Shareholder Activities**

Each investment manager is responsibile for voting the proxies of the fund's assets, consistent with the manager's internal voting process. Unless the Board takes specific action to do so, HPRS does not take positions on shareholder proposals.

### **Monitoring and Reporting**

Periodically, to accomplish the goal of earning the highest rate of return, HPRS may elect to have existing managers present to the Investment Committee, a subset of the Investment Committee or to Hartland & Co. This comprehensive performance review should go well beyond

simply reviewing the manager's performance relative to the benchmark. It should encompass: ensuring compliance with the investment guidelines, ensuring compliance with reporting requirements, ensuring continuity of the investment process and philosophy, and ensuring consistency of strategy (no "style drift"). In short, the review is intended to assure that the reasons for originally selecting the manager are still intact.

The manager's presentation should begin with an organizational overview, including discussion of the firm's mission, history, ownership, assets, clients, etc. Any pertinent organizational or staff changes (resignations, hires, etc.) should be highlighted, and biographies of key personnel should always be included. Any pending legal or regulatory issues should be disclosed. A thorough review should restate the portfolio objectives and account guidelines.

The investment universe should be reviewed, highlighting allowed or prohibited types of securities and what, if any, derivative use is allowed. Perhaps most importantly, Investment Committee members should inquire about and be comfortable with the manager's risk management procedures. The manager should offer a market overview, reviewing and analyzing trends and conditions in the relevant market. He should compare the portfolio structure to the benchmark, highlighting significant over-weightings or under-weightings in sectors. Similar comparisons should be shown for major portfolio characteristics (for stocks, cap size, P/E valuation, etc.; for bonds, maturity, coupon, etc.). Major holdings should be listed; if possible, all holdings should be listed.

Analysis of performance should begin with confirmation that the manager is using Analysis of performance should begin with confirmation that the manager is using the benchmark(s) agreed to in the account guidelines. Appropriate time periods for performance appraisal should be both short-term (quarter, year-to-date, past 12 months) and long-term (i.e., three years, five years, since inception). Performance should ideally be presented in both gross and net terms, but it should at least be clear which returns are being presented.

Just as important as the appropriate presentation of relevant performance figures is the discussion of performance attribution. The manager should explicitly present the factors (sectors, securities, duration, etc.) that enhanced performance and that had a negative impact.

As part of the presentation, the manager should present the firm's and/or department's outlook for the economy, the market, and the portfolio. For managers of nontraditional asset classes like real estate and alternative investments, the monitoring process will be different, tempered by such facts as the absence of public markets for the underlying investments, the lack of obvious benchmarks, and the much longer investment time horizons.

### **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.

### **Investment Section**

# **Investment Objectives, Policies, and Guidelines**

Revised, October 27, 2011

Revised, August 26, 2010

Revised, April 22, 2010

Revised, February 25, 2010

Revised, April 23, 2009

Revised, October 25, 2007

Revised, June 16, 2005

Revised, June 26, 2003

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

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# **Actuarial Section**



June 1, 2012

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, 2010.

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 or assisted in preparing 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

The Retirement Board June 1, 2012 Page 2

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, subject to an 80% to 120% corridor on market value. The actuarial value of assets is 98% of the market value of assets as of December 31, 2010.

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 Statements No. 25 and No. 43 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, 2010 valuation were based upon a study of experience during the years 2005 through 2009.

Investment return on a market value basis during 2010 was greater than assumed, which helped to partially offset the continuing effect of the losses experienced during calendar year 2008. The pension unfunded actuarial accrued liability exceeds the covered payroll by a factor of four. The present contribution rate structure is not sufficient to amortize this unfunded actuarial accrued liability, even if all future contributions were allocated to the pension program. In addition, the retiree health plan continues to be cause for great concern. Based upon the present contribution rate allocation, the retiree health plan is expected to remain solvent until 2022. Available resources need to be brought in line with projected benefit payouts in the near future if the retiree health plan is to continue to provide benefits similar to those currently provided.

Based upon the results of the December 31, 2010 valuations, we recommend that the Board continue to investigate ways of restoring financial balance to the pension program. Continued cost containment efforts can have a positive effect on the retiree health plan, but additional contribution income is needed.

The signing actuaries are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

Brian B. Murphy, FSA, MAAA

Mita D. Drazilov, ASA, MAAA

BBM:MDD:mdd

### **Statement of Actuarial Assumptions and Methods**

After consulting with the actuary, these assumptions have been adopted by the Highway Patrol Retirement System Board of Trustees, effective January 1, 2003.

### **Funding Method**

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

### **Asset Valuation Method**

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

### **Interest Rate**

The investment return rates used in making valuations are 8.0% for pension assets and 5.0% for OPEB assets, compounded annually (net of administrative expenses).

### **Payroll Growth**

Base pay increases are assumed to be 4.0% annually, attributable to broad economic effects such as inflation and real wage growth. Additional merit and seniority increases are assumed as follows:

Payroll Growth			
Service Years	Merit & Seniority	Base (Economic)	Total
1 - 2	10.0%	4.0%	14.0%
3 - 5	3.0	4.0	7.0
6 - 10	1.0	4.0	5.0
11 +	0.3	4.0	4.3

### **Other Assumptions**

Each retiree is assumed to have a surviving spouse.

Health care costs are assumed to increase annually by 4.0%, plus an additional declining percentage ranging from 5.0% - 0.5% through 2019.

Each benefit recipient is assumed to be eligible for Medicare at age 65.

Post-employment mortality is based on the RP-2000 Combined Healthy Male and Female Tables projected to 2020 using Projection Scale AA.

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

# **Statement of Actuarial Assumptions and Methods**

# Probabilities of Separation from Active Employment before Age & Service Retirement

Percentage of Active Members Separating Within Next Year

Sample Age	Disability	Death (Men)	Death (Women)	Other
20	0.08%	0.02%	0.01%	2.57%
25	0.08	0.02	0.01	2.24
30	0.23	0.02	0.01	1.91
35	0.42	0.04	0.02	1.56
40	0.70	0.05	0.04	0.84
45	0.85	0.08	0.06	0.41
50	1.13	0.11	0.08	0.15
55	1.32	0.18	0.14	0.00

Probabilities of Age & Service Retirement  Percentage of Eligible Members Retiring Within Next Year				
<b>Retirement Ages</b>	Unreduced Benefit	Reduced Benefit		
48	35%	3.5%		
49	15	3.5		
50	10	3.5		
51	10	3.5		
52	15			
53	10			
54	10			
55	20			
56	30			
57	25			
58	20			
59	20			
60+	100			

### **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, which is 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 current assets (cash and investments) are compared with (1) active member contributions on deposit, (2) the liability for future benefits to current retired lives, and (3) the liability for service already rendered by active members. In a system that has been following the discipline of level percent financing, the liability for active member contributions on deposit (column 1 below) and the liability for future benefits to current retired lives (column 2 below) will be fully covered by current assets, except in rare circumstances. In addition, the liability for service already rendered by active members (column 3 below) will be partially covered by the remainder of current assets. Generally, if the system has been using level cost financing, the funded portion of column 3 will increase over time.

	(1) Active Member	(2) Retirees, Beneficiaries, &	(3) Active Members (Employer		Liabil	ntage of Ac ities Cover ported Ass	ed by
	Contributions	Vested Deferreds	Financed Portion)	Valuation			
Year	(\$)	(\$)	(\$)	Assets (\$)	(1)	(2)	(3
2005▶	77,779,569	463,476,318	232,600,277	591,922,200	100	100	22
2006 ▲	82,720,940	482,998,754	242,041,018	653,493,046	100	100	36
2007	89,279,853	509,179,659	267,795,882	700,860,707	100	100	38
2008	94,749,356	511,626,943	298,146,078	603,265,803	100	99	-
2009	101,131,517	528,087,050	310,865,779	620,356,505	100	98	-
2010▶	104,503,065	583,714,389	329,552,995	630,971,500	100	90	_

	e <b>mber Valuati</b> g December 31	on Data		
Year	Active Members	Annual Payroll (\$)	Average Annual Salary (\$)	% Increase in Average Pay
2005	1,573	83,408,155	53,025	1.3
2006	1,592	85,878,329	53,944	1.7
2007	1,597	93,752,908	58,706	8.8
2008	1,544	94,301,538	61,076	4.0
2009	1,547	94,824,789	61,296	0.4
2010	1,537	94,767,852	61,658	0.6

## Retirees and Beneficiaries Added to and Removed from Rolls Years Ending December 31

	Adde	d to Rolls	Remove	d from Rolls	Rolls at	End of Year	% Increase	Average
		Annual	-	Annual		Annual		Annual
		Allowances		Allowances		Allowances	in Annual	Allowances
Year	Number	(\$)	Number	(\$)	Number	(\$)	Allowances	(\$)
2005	45	2,335,992	26	483,312	1,301	38,132,772	5.1	29,316
2006	70	2,589,840	34	620,952	1,337	40,101,660	5.2	29,988
2007	53	2,215,728	31	673,440	1,359	41,643,948	3.8	30,648
2008	45	2,532,732	33	639,576	1,371	43,537,104	4.5	31,752
2009	45	2,491,176	31	511,632	1,385	45,516,648	4.5	32,868
2010	64	3,119,568	25	497,568	1,424	48,138,648	5.8	33,804

# **Analysis of Financial Experience**

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

	Gain (or Lo	oss) for Year
Type of Activity	2010	2009
Age & Service Retirements  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.	(\$147,669)	\$272,398
<b>Disability Retirements</b> If disability claims are less than assumed, there is a gain - if more claims, a loss.	810,248	822,758
<b>Death-in-Service Benefits</b> If survivor claims are less than assumed, there is a gain - if more claims, a loss.	(326,458)	(106,084)
Withdrawal from Employment  If more liabilities are released by withdrawals than assumed, there is a gain if smaller releases, a loss.	222,407	(641,440)
Pay Increases  If there are smaller pay increases than assumed, there is a gain - if greater increases, a loss.	8,089,777	11,001,072
<b>Investment Income</b> If there is greater investment income than assumed, there is a gain - if less income, a loss.	(18,851,548)	(13,984,563)
Other Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, and other events.	(4,235,950)	(746,402)
Gain (or Loss) During Year From Financial Experience	(\$14,439,193)	(\$3,382,261)
Non-Recurring Items Adjustments for benefit and assumption changes.	(36,418,935)	
Composite Gain (or Loss) During Year	(\$50,858,128)	(\$3,382,261)

### **Purpose**

In 1941, the Highway Patrol Retirement System (HPRS) was created by the Ohio General Assembly to provide for retirement and survivor benefits for members and dependents.

### Administration

The general administration and management of HPRS are vested in the Highway Patrol Retirement System Board of Trustees under Ohio Revised Code Chapter 5505. The eleven-member Board consists of the Superintendent of the State Highway Patrol, three appointed members, five elected active members, and two elected retired members.

The appointed members are investment experts designated by the Governor, the Treasurer of State, and the General Assembly. The active members are elected to four-year terms by members of the plan. Any contributing member is eligible to become an active member candidate, and each contributing member is eligible to vote in the active member election process. Any retiree who is an Ohio resident and who has not served as a statutory or active member of the Board during the past three years is eligible to become a retired member candidate. Each retiree is eligible to vote in the retired member election.

The Superintendent of the State Highway Patrol serves by virtue of the office held. The Attorney General of the State of Ohio is the legal advisor to the Board.

A chairperson and vice-chairperson are elected by the Board annually. All regular Board meetings are considered to be public meetings. While the Board members serve without compensation, they are not expected to suffer any loss because of absence from regular employment while engaged in official Board duties.

In addition, the members of the Board are reimbursed for actual and necessary expenses.

### **Employer Contributions**

Ohio law requires that the Board certify the employer contribution rate to the Office of Budget and Management in even-numbered years. The employer rate may not be lower than the member rate, nor may it exceed three times the member rate.

### **Member Contributions**

Each member of HPRS, through payroll deduction, must contribute the legally-established contribution rate as a percentage of salary. Individual member accounts are maintained by HPRS and, upon termination of employment, the amount contributed is refundable in lieu of the payment of a pension benefit.

### **Service Credit**

Prior to retirement, the following types of additional service credit may be purchased: (1) military service pursuant to the Ohio Revised Code, (2) prior refunded full-time service as a contributing member of the State Highway Patrol Retirement System, the Ohio Police & Fire Pension Fund, the State Teachers Retirement System of Ohio, the School Employees Retirement System of Ohio, the Ohio Public Employees Retirement System, and the Cincinnati Retirement System. Military service and prior refunded full-time service in HPRS and the Ohio Police & Fire Pension Fund may be used to meet the minimum service requirement in order to qualify for unreduced pension

benefits. In the case of prior service credit that was not refunded, service credit may be transferred directly from another Ohio retirement system to HPRS.

### Retirement

### **Age and Service Retirement**

Upon retirement from active service, a member is eligible to receive a pension by achieving a minimum age and service requirement, as follows:

Age	Service Credit
55	15 years
52	20 years
48	25 years

For a fifteen-year pension, benefits are calculated as 1.5 percent of final average salary times the number of years of service. For a twenty-year pension, benefits are calculated as 2.5 percent of final average salary times the number of years of service. For a pension based on greater than twenty but less than twenty-five years, benefits are calculated as 2.5 percent of final average salary times the first twenty years of service, plus 2.25 percent of final average salary times the number of years of service in excess of twenty. For a pension based on twenty-five years, benefits are calculated as 2.5 percent of final average salary times the first twenty years of service, 2.25 percent of final average salary times the next five years of service, and 2.0 percent of final average salary in excess of twenty-five years. The maximum allowed pension factor of 79.25 percent of final average salary is earned with thirty-four years of service credit.

The final average salary, which includes base pay, longevity pay, hazard duty pay, shift differential, and professional achievement pay, is the average of a member's three highest years of salary.

Benefit payments become effective the day following the last day of employment and are payable monthly throughout the retiree's lifetime.

### **Deferred Retirement**

A member who has met a service requirement, but not the requisite age, may retire and defer the receipt of benefits until the age requirement is met.

### **Reduced Retirement**

A member who has accumulated at least twenty but less than twenty-five years of service credit may retire and receive a reduced lifetime pension based on the following schedule:

Age	Reduced Pension
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 retiree has received a benefit payment.

### **Resignation or Discharge**

With less than twenty years of service credit, a member may not collect a pension if "dishonesty, cowardice, intemperate habits, or conviction of a felony" was the basis for discharge or resignation from the Ohio State Highway Patrol.

### **Disability Retirement**

A member who retires as the result of a disability that was incurred in the line of duty receives a pension of 61.25 percent of 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 50 percent of final average salary.

### **Deferred Retirement Option Plan (DROP)**

A member who is eligible to retire with an unreduced pension benefit may enter the DROP. The member will continue to work in the existing assignment as determined by the employer and receive the appropriate compensation for that rank. A DROP member is considered retired; however, instead of receiving a monthly pension benefit, the member begins to accumulate funds in a tax-deferred account. The DROP account is funded by both the monthly pension benefit and the member's continuing active contributions, as well as interest that accrues on these amounts.

A member may participate in DROP until age 60, but for no more than eight years. The minimum participation period is two years for members who enter the DROP at age 52 or more and three years for members who enter the DROP before age 52. A member who terminates employment earlier than the minimum participation period will forfeit any accrued interest.

When a DROP member terminates employment with the Ohio State Highway Patrol, the member will begin to receive the monthly pension benefit that had previously been funding the DROP account. In addition, after the minimum participation period, the proceeds of the DROP account will be rolled over into a qualified plan or paid to the member in a lump sum, an annuity, or a combination of these distribution types.

### **Payment Plans**

Each retirement applicant must select a benefit payment plan. Regardless of the plan selected, a survivor benefit is paid to an eligible survivor of a deceased active member or retiree. The plan options are as follows:

### Plan 1 - Single Life Annuity

This plan pays the highest monthly benefit, calculated as a percentage of final average salary, and is limited to the lifetime of the retiree. A member who receives a disability retirement may only receive a single life annuity.

### Plan 2 - Joint and Survivor Annuity

This plan pays a reduced monthly benefit for a member's lifetime and provides for a monthly benefit to a surviving beneficiary.

### Plan 3 - Life Annuity Certain and Continuous

This plan is an annuity, payable for a guaranteed minimum period. If a retiree dies before the end of the period, the pension benefit is paid to the designated beneficiary for the remainder of the period.

## Partial Lump Sum (PLUS) Distribution

In addition to selecting one of the three retirement payment plans, a retiree may elect to receive a lump sum cash payment, either as a taxable distribution, or as a rollover to a tax-qualified plan. Following this payment, a retiree will receive a reduced monthly benefit for life. To be eligible for a PLUS distribution, a retiree must have attained age 51 with at least 25 years of total service, or age 52 with at least 20 years of total service. The lump sum amount may not be less than six times the monthly single life pension and not more than sixty times the monthly single life pension.

### **Survivor Benefits**

A surviving spouse of a deceased retiree, or of an active member who was eligible to receive a retirement pension at the time of death, receives a monthly benefit equal to one-half the deceased member's monthly pension benefit (minimum, \$900). A surviving spouse of an active member who was not eligible for a retirement benefit at the time of death receives a monthly survivor benefit of \$900.

Each surviving dependent child receives \$150 monthly until age 18. If the child is a full-time student, this benefit continues until age 23.

### **Health Care**

A comprehensive Preferred Provider medical health care plan is currently offered to all benefit recipients and dependents. Benefit recipients may elect to cover spouses and dependent children by authorizing the appropriate premium deduction.

Dental and vision coverage is also available to benefit recipients and dependents. The Board, which has the authority to implement changes, annually evaluates the premiums and plan design.

### Medicare

Benefit recipients who submit proof of Medicare Part B coverage are reimbursed for the basic Part B premium, up to a maximum of \$96.40 monthly.

### **Cost of Living**

At age 53 and thereafter, each retiree receives an annual cost of living adjustment (COLA) equal to 3.0%. Each survivor benefit recipient is eligible for a COLA increase after receiving benefits for twelve months. Each disability benefit recipient is 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 retiree, a lump sum payment of \$5,000 is paid to the surviving spouse, or to the retiree's estate if there is no surviving spouse.

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# **Statistical Section**

### Introduction

The objectives of the statistical section are to provide financial statement users with additional historical perspective, context, and relevant details that will assist in using information in the financial statements, notes to the financial statements, and required supplementary information in order to better understand and assess HPRS's overall financial condition.

The schedules, beginning on page 79, show financial trend information that will assist users in understanding and assessing how HPRS's financial condition has changed over the past ten years. The financial trend schedules presented are --

- Changes in Net Assets
- Benefit Deductions from Net Assets by Type

The schedules, beginning on page 80, show demographic and economic information. This information is designed to assist in understanding the environment in which HPRS operates. The demographic and economic information and the operating information presented include --

- Principal Participating Employer
- Retired Members by Type of Benefit
- Average Benefit Payments

Changes in Net Assets Years Ending December 31										
Tears Ending December 31										
Additions	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>2005</u>	2004	<u>2003</u>	<u>2002</u>
Employer contributions	\$22,966,338	\$21,211,944	\$20,453,914	\$20,302,216	\$19,956,700	\$19,263,941	\$18,467,789	\$17,205,609	\$16,361,339	\$14,923,893
Member contributions	8,348,577	8,295,882	8,624,025	8,870,985	8,901,454	8,610,088	8,582,130	8,192,944	8,136,974	7,563,173
Transfers from other systems	608,366	329,335	1,009,422	632,894	717,017	648,282	1,180,951	856,496	763,419	999,176
Investment income, net	(16,385,745)	72,161,170	109,493,243	(207,583,959)	50,333,115	85,692,657	37,890,851	62,907,281	105,112,725	(42,921,956)
Total additions	\$15,537,536	\$101,998,331	\$139,580,604	(\$177,777,864)	\$79,908,286	\$114,214,968	\$66,121,721	\$89,162,330	\$130,374,457	(\$19,435,714)
Deductions										
Benefits paid to participants	55,638,322	52,498,558	49,884,126	47,939,139	44,676,510	40,343,244	37,716,268	35,187,531	33,074,853	31,325,089
Member contribution refunds	451,682	476,936	1,076,685	570,827	98,628	299,128	495,640	155,989	386,931	266,137
Administrative expenses	948,319	637,943	758,818	613,447	605,165	572,616	561,817	518,834	559,052	462,200
Transfers to other systems	1,797,986	566,615	406,147	282,987	330,539	914,950	403,975	602,345	789,387	1,054,264
Total deductions	\$58,836,309	\$54,180,052	\$52,125,776	\$49,406,400	\$45,710,842	\$42,129,938	\$39,177,700	\$36,464,699	\$34,810,223	\$33,107,690
Change in pension net assets	(\$43,298,773)	\$47,818,279	\$87,454,828	(\$227,184,264)	\$34,197,444	\$72,085,030	\$26,944,021	\$52,697,631	\$95,564,234	(\$52,543,404)

Changes in Net Asset	s – OPEB									
Years Ending December 3	1									
Additions	2011	<u>2010</u>	2009	2008	<u>2007</u>	<u>2006</u>	<u> 2005</u>	2004	<u>2003</u>	<u>2002</u>
Employer contributions	\$1,622,889	\$3,227,905	\$4,281,052	\$4,350,474	\$4,276,436	\$3,064,718	\$3,006,385	\$2,867,602	\$3,395,749	\$3,780,715
Investment income, net	(2,752,009)	17,734,416	21,030,418	(30,809,552)	11,254,046	15,632,184	8,998,070	12,051,961	18,885,722	(6,673,383)
Health care premiums	1,274,337	911,076	902,310	784,499	577,511	553,916	552,570	489,889	459,601	370,431
Retiree Drug Subsidy	422,640	471,909	513,668	317,381	329,158	336,794	-	-	-	- '
Prescription Drug Rebates	366,316	-	-	-	-	-	-	-	-	-
Medicare D Refunds	6,567	-	-	-	-	-	-	-	-	-
Total additions	\$940,740	\$22,345,306	\$26,727,448	(\$25,357,198)	\$16,437,151	\$19,587,612	\$12,557,025	\$15,409,452	\$22,741,072	(\$2,522,237)
Deductions										
Health care expenses	12,360,917	11,447,630	9,801,853	9,648,543	11,260,675	8,871,533	9,484,829	7,438,539	7,640,730	7,395,474
Administrative expenses	159,271	106,450	123,210	98,082	97,101	92,761	92,344	86,031	93,769	78,635
Total deductions	\$12,520,188	\$11,554,080	\$9,925,063	\$9,746,625	\$11,357,776	\$8,964,294	\$9,577,173	\$7,524,570	\$7,734,499	\$7,474,109
Change in OPEB net assets	(\$11,579,448)	\$10,791,226	\$16,802,385	(\$35,103,823)	\$5,079,375	\$10,623,318	\$2,979,852	\$7,884,882	\$15,006,573	(\$9,996,346)

Benefit Deductions for Years Ending December 3		by Type - P	ension							
Type of Benefit	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
Age & Service	\$19,905,957	\$18,292,909	\$17,853,793	\$19,683,104	\$16,838,694	\$15,064,493	\$17,904,543	\$14,041,248	\$13,526,379	\$12,874,767
Early	26,634,505	25,132,620	23,585,973	25,159,586	19,997,110	17,533,382	15,729,197	14,183,148	12,901,479	11,972,979
Reduced	1,829,190	1,865,761	1,828,296	1,833,554	1,693,050	1,659,235	86,287	1,573,077	1,504,785	1,422,072
Disability	3,537,849	3,305,364	3,044,325	2,927,862	2,761,851	2,534,672	2,305,544	2,051,805	1,875,919	1,828,394
Survivor	3,670,821	3,846,904	3,496,739	3,575,139	3,320,805	3,486,462	1,615,697	3,258,253	3,186,291	3,141,877
Death Benefits	60,000	55,000	75,000	80,000	65,000	65,000	75,000	80,000	80,000	85,000
Total Pension Benefits	\$55,638,322	\$52,498,558	\$49,884,126	\$53,259,245	\$44,676,510	\$40,343,244	\$37,716,268	\$35,187,531	\$33,074,853	\$31,325,089

Benefit Deductions from Years Ending December 31	n Net Assets	by Type - O	PEB							
Type of Benefit	<u>2011</u>	<u>2010</u>	<u>2009</u>	2008	<u>2007</u>	<u>2006</u>	2005	<u>2004</u>	2003	2002
Medical	\$6,755,757	\$6,380,295	\$4,983,739	\$5,087,073	\$6,512,976	\$4,971,003	\$5,593,232	\$4,065,457	\$4,377,284	\$4,427,603
Wellness	95,210	57,747	86,007	79,679	67,479	28,820	-	-	-	-
Prescription drugs	4,053,343	3,709,855	3,430,089	3,274,896	3,513,662	2,832,743	2,980,755	2,710,367	2,681,414	2,431,297
Medicare-B reimbursement	770,183	713,317	673,450	632,293	572,127	503,034	422,045	347,585	290,506	260,772
Dental	528,824	453,276	495,272	453,003	464,402	408,667	364,139	230,994	209,429	194,893
Vision	157,600	133,140	133,296	121,599	130,029	127,266	124,658	84,136	82,097	80,909
Total	\$12,360,917	\$11,447,630	9,801,853	\$9,648,543	\$11,260,675	\$8,871,533	\$9,484,829	\$7,438,539	\$7,640,730	\$7,395,474
Member premiums/adjustments ▲	(2,069,859)	(1,382,985)	(1,415,978)	(1,101,880)	(906,669)	(890,710)	(552,570)	(489,889)	(459,601)	(370,431)
Net paid by HPRS	\$10,291,058	\$10,064,645	\$8,385,875	\$8,546,663	\$10,354,006	\$7,980,823	\$8,932,259	\$6,948,650	\$7,181,129	\$7,025,043

<sup>▲</sup> Includes Medicare-D reimbursement. Prior to 2002, Dental & Vision were combined with Medical.

Principal 2011 and 20	Participating Employer 002		
Year	Participating Government	Covered Employees	Percentage of Total System
2011	Ohio State Highway Patrol	1,520	100%
2002	Ohio State Highway Patrol	1,548	100%

	Number of		7	Гуре of R	etiremen	t				Reti	rement O	ption			
Monthly Benefit	Retired Members	1	2	3	4	5	6	Unmodified	1	2	3	4	5	6	7
Deferred	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
\$1 - 250	27	-	-	-	-	26	1	27	-	-	-	-	-	-	-
251-500	1	-	-	-	-	-	1	1	-	-	-	-	-	-	-
501 - 750	4	-	-	-	-	-	4	4	-	-	-	-	-	-	-
751 - 1000	24	-	-	-	-	17	7	24	-	-	-	-	-	-	-
1001 - 1250	84	2	-	-	1	79	2	84	-	-	-	-	-	-	-
1251 - 1500	118	-	-	27	1	84	6	117	1	-	-	-	-	-	-
1501 - 1750	85	19	6	12	12	31	5	85	-	-	-	-	-	-	-
1751 - 2000	73	41	3	16	3	9	1	72	1	-	-	-	-	-	-
2001 - 2250	46	19	1	12	9	5	-	46	-	-	-	-	-	-	-
2251 - 2500	46	14	6	8	15	3	-	45	1	-	-	-	-	-	-
2501 - 2750	85	28	28	4	24	1	-	82	-	3	-	-	-	-	-
2751 - 3000	152	28	107	-	17	-	-	141	1	8	1	-	-	-	1
3001 - 3250	159	49	96	3	11	-	-	155	_	1	1	-	-	-	2

144

521

1,548

1

25

### Type of Retirement

3251 - 3500

Over 3,500

Total

- 1 Age & Service
- 2 Early
- 3 Reduced
- 4 Disability
- 5 Survivor
- 6 Alternate Payee (Division of Property Order)

### **Retirement Option**

Under the unmodified plan, a surviving spouse receives a 50% continuance (minimum, \$900 monthly)

55

228

483

86

298

631

1

84

Under the following options, a surviving spouse qualifies for the above-noted 50% continuance; however, the member's lifetime benefit is reduced:

10

112

255

27

Option 1 – Beneficiary receives 0 to <25% of member's reduced monthly benefit

152

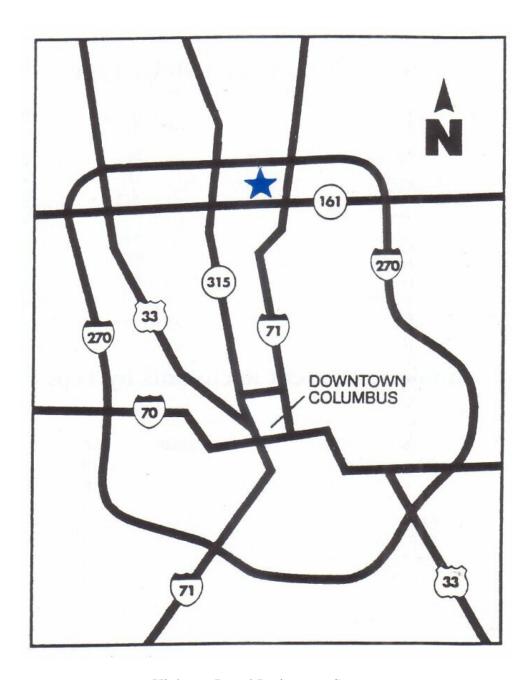
536

1,601

- Option 2 Beneficiary receives 25 to <50% of member's reduced monthly benefit
- Option 3 Beneficiary receives 50% or more of member's reduced monthly benefit
- Option 4 Beneficiary receives 100% of member's remaining reduced monthly benefit for 5 years after benefit begins
- Option 5 Beneficiary receives 100% of member's remaining reduced monthly benefit for >5 to 10 years after benefit begins
- Option 6 Beneficiary receives 100% of member's remaining reduced monthly benefit for >10 to 15 years after benefit begins
- Option 7 Beneficiary receives 100% of member's remaining reduced monthly benefit for >15 years after benefit begins

3

<b>verage Be</b> 002-2011	nefit Payments				
Retirement			Years of Credi		
During		20 to <25	25 to <30	30+	Overa
2011	Average Monthly Benefit	\$2,781	\$3,757	\$4,738	\$3,6
	Average Final Average Salary	\$5,734	\$5,779	\$6,155	\$5,6
	Number of Retirees	8	42	4	
2010	Average Monthly Benefit	\$2,923	\$3,571	\$5,375	\$3,6
	Average Final Average Salary	\$5,185	\$5,501	\$7,123	\$5,6
	Number of Retirees	7	33	5	
2009	Average Monthly Benefit	\$2,861	\$4,114	\$5,424	\$3,8
	Average Final Average Salary	\$4,975	\$6,016	\$7,334	\$5,
	Number of Retirees	9	19	2	
2008	Average Monthly Benefit	\$2,621	\$3,879	\$4,822	\$3,7
	Average Final Average Salary	\$5,182	\$6,009	\$6,491	\$5,9
	Number of Retirees	6	24	3	,
2007	Average Monthly Benefit	\$2,089	\$3,245	\$5,619	\$3,2
	Average Final Average Salary	\$4,359	\$5,138	\$7,523	\$5,
	Number of Retirees	5	17	2	
2006	Average Monthly Benefit	\$2,681	\$3,571	\$6,850	\$3,3
	Average Final Average Salary	\$4,838	\$5,575	\$8,852	\$5,4
	Number of Retirees	13	24	1	
2005	Average Monthly Benefit	\$2,601	\$3,238	\$5,064	\$3,3
	Average Final Average Salary	\$4,807	\$4,995	\$6,721	\$5,
	Number of Retirees	4	26	4	
2004	Average Monthly Benefit	\$2,267	\$3,327	\$5,386	\$3,4
	Average Final Average Salary	\$4,781	\$5,113	\$7,109	\$5,3
	Number of Retirees	3	36	5	
2003	Average Monthly Benefit	\$2,116	\$3,322	\$3,685	\$3,1
	Average Final Average Salary	\$4,313	\$5,206	\$5,015	\$5,0
	Number of Retirees	6	28	5	
2002	Average Monthly Benefit	\$2,151	\$2,937	\$3,223	\$2,9
	Average Final Average Salary	\$4,348	\$4,726	\$4,651	\$4,0
	Number of Retirees	5	21	12	. ,



Highway Patrol Retirement System 6161 Busch Boulevard, Suite 119 Columbus, Ohio 43229-2553 Telephone (614) 431-0781 Fax (614) 431-9204 e-mail system@ohprs.org www.ohprs.org

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.