

Highway Patrol Retirement System



Comprehensive Annual Financial Report

A Component Unit of the State of Ohio

Year ending December 31, 2013



Mark R. Atkeson, Executive Director
6161 Busch Boulevard, Suite 119
Columbus, Ohio 43229-2553



Dave Yost • Auditor of State

Board of Trustees
Ohio State Highway Patrol Retirement System
6161 Busch Boulevard
Columbus, Ohio 43229-2553

We have reviewed the *Independent Auditor's Report* of the Ohio State Highway Patrol Retirement System, Franklin County, prepared by Kennedy Cottrell Richards LLC, for the audit period January 1, 2013 through December 31, 2013. Based upon this review, we have accepted these reports in lieu of the audit required by Section 117.11, Revised Code. The Auditor of State did not audit the accompanying financial statements and, accordingly, we are unable to express, and do not express an opinion on them.

Our review was made in reference to the applicable sections of legislative criteria, as reflected by the Ohio State Constitution, and the Revised Code, policies, procedures and guidelines of the Auditor of State, regulations and grant requirements. The Ohio State Highway Patrol Retirement System is responsible for compliance with these laws and regulations.

A handwritten signature in black ink that reads "Dave Yost".

Dave Yost
Auditor of State

July 8, 2014

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Highlights for 2013

- During 2013, 18 active members entered into retirement status including 7 disabilities, 27 members terminated DROP, and 32 active members entered DROP. During the year, 33 retirees and surviving spouses passed away. At the end of 2013, there were a total of 1,611 active members (including 134 members in DROP) and 1,220 retired members (including 124 on disability.)
- At the end of 2013, the assets of the system were valued at \$813,952,605 and the investment return for the year was 19.6% (gross of fees except for Alternatives which was net of fees.) The value of the DROP account was \$21,914,030.
- The Ohio Legislature passed Substitute Senate Bill 345 in late 2012 with effective dates of most components of the law occurring in 2013:
 - The percentage of active member contribution, which ranges between 10% - 14%, will be determined by the Board as deemed necessary to comply with the actuarial valuation requirements of ORC 5505.121. (Effective date June 24, 2013)
 - The annual cost of living adjustment (COLA) applied to eligible retirees, which ranges between 0% - 3%, will be determined by the Board as deemed necessary to comply with the actuarial valuation requirements of ORC 5505.121. (Effective date January 7, 2013)
 - Increase COLA eligibility age from 53 to 60. (Effective date January 7, 2013)
 - Increase Final Average Salary (FAS) calculation period from 3 to 5 years for members retiring after 2014. (Effective date January 1, 2015)

No legislation was enacted by the United States Congress that impacted the System; however, fees associated with the Patient Protection and Affordable Care Act (PPACA) commence in 2014 which will negatively affect HPRS's health care fund. In addition, new GASB (Governmental Accounting Standards Board) statements 67 and 68 were established and will take effect in 2014. These new statements will change the way some liabilities will be presented in future HPRS financial statements.

- With the new authority granted by the Legislature, the Board voted to set the employee contribution rate at 11.5% of payroll and set COLA for retirees at 1.5% beginning in 2014. This action reduced the system's actuarial accrued unfunded liability by approximately \$116 million. While bringing HPRS into compliance with the 30-year amortization requirement, it also allowed for an additional 1.9% of employer contribution to go into the health care fund.
- The system underwent a complete database overhaul ensuring that all membership records were complete, accurate, and up-to-date.

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Introductory Section



Government Finance Officers Association

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, 2012

Executive Director/CEO

Introductory Section

Board of Trustees and Senior Staff



Capt. Cory D. Davies
Employee Trustee/Chair



Maj. (ret.) Darryl L. Anderson
*Retiree Trustee/
Vice-Chair*



S/Lt. Heidi A. Marshall
Employee Trustee



Sgt. Jeremy B. Mendenhall
Employee Trustee



Capt. Carl Roark
Employee Trustee



Lt. Andre T. Swinerton
Employee Trustee



Col. Paul A. Pride
Statutory Member



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



Joseph H. Thomas
*General Assembly's Investment
Expert*



Kenneth C. Boyer
*Treasurer of State's Investment
Designee*



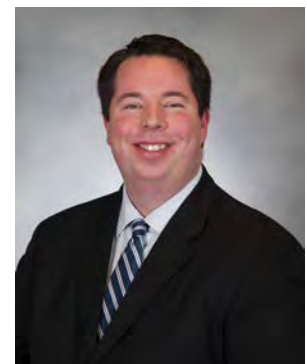
Maj. (ret.) JP Allen
*Governor's Investment Expert
Appointee*



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

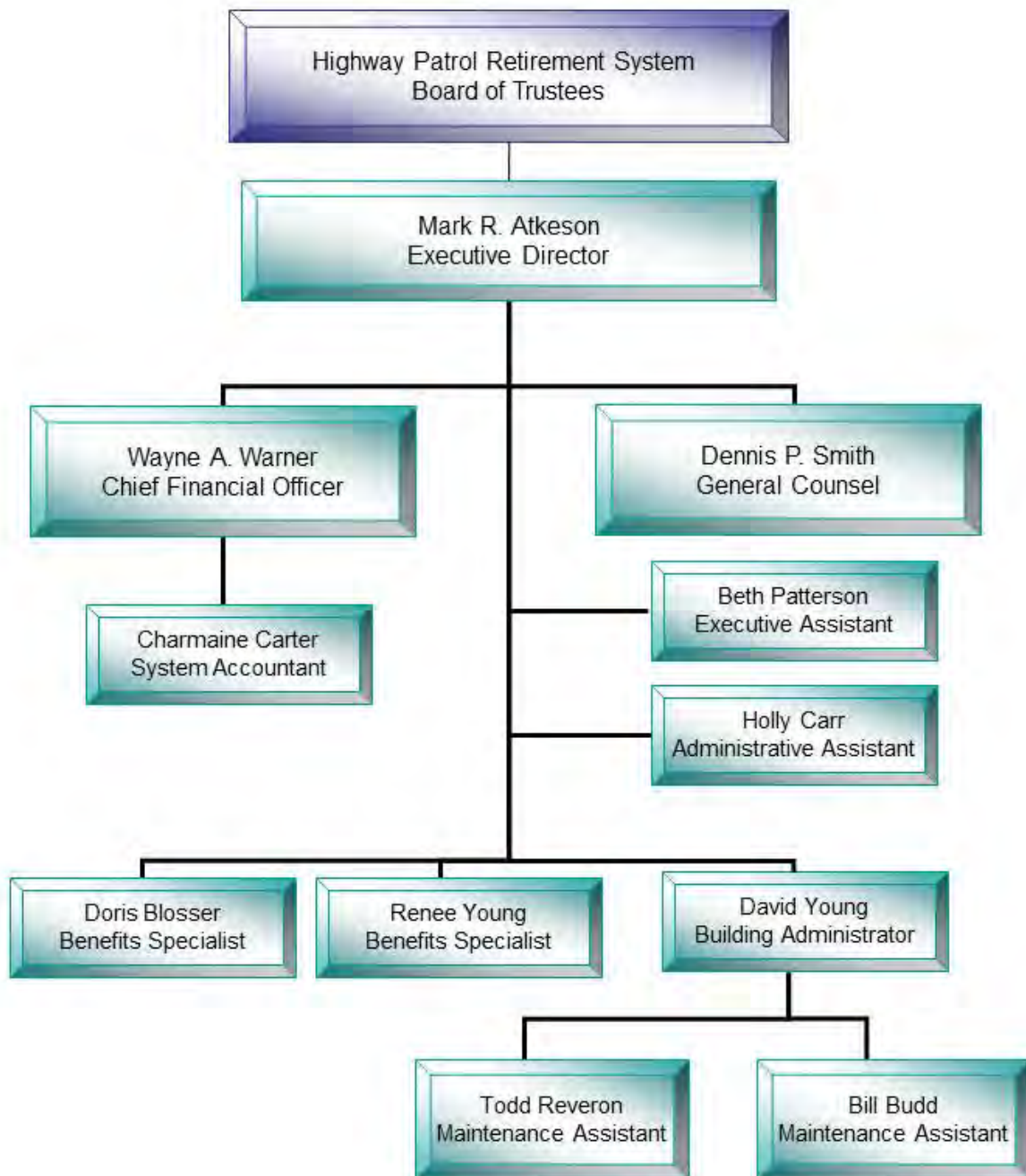


Capt. (ret.) Wayne A. Warner
CFO / CIO



Dennis P. Smith
General Counsel

Highway Patrol Retirement System Organizational Chart



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

Introductory Section

Consultants and Investment Managers

Consultants

Medical Advisor
Earl N. Metz, M.D.
Columbus, Ohio

Actuary
Gabriel, Roeder, Smith, & Co.
Southfield, Michigan

Investment Consultant
Hartland & Co.
Cleveland, Ohio

Investment Managers

Ancora Advisors
Beachwood, Ohio
Micro Cap Equity

Blue Point Capital Partners
Cleveland, Ohio
Private Equity

Credit Investments Group
New York, New York
High Yield Fixed Income

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

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

Driehaus Capital Management
Chicago, Illinois
International Small Cap Growth Equity

Evanston Capital Management
Evanston, Illinois
Fund of Hedge Funds

Feingold O’Keeffe Capital
Boston, Massachusetts
Distressed Debt

Forest Investment Associates
Atlanta, Georgia
Timber

Grosvenor Capital Management
New York, New York
Private Equity

Henderson Global Investors
London, United Kingdom
Real Estate

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

Long Wharf Real Estate Partners
Boston, Massachusetts
High Yield Fixed Income

LSV Asset Management
Chicago, Illinois
Large Cap Value Equity

Manning & Napier Fund
Dublin, Ohio
International Equity

Oaktree Capital Management
New York, New York
Real Estate

OFI Trust Company
New York, New York
Emerging Markets

Pantheon Ventures
San Francisco, California
Private Equity

Pinnacle Asset Management
New York, New York
Fund of Hedge Funds

Pyramis Global Advisors
Springfield, Rhode Island
Real Estate

Seix Investment Advisors
Upper Saddle River, New Jersey
Distressed Debt

T. Rowe Price
Baltimore, Maryland
Large Cap Blend Indexed

The Vanguard Group
Wayne, Pennsylvania
*Money Market, Domestic Large Cap
Blend, Mid Cap & International Equity*

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

Westfield Capital Management
Boston, Massachusetts
Small Cap Growth Equity

William Blair & Company
Chicago, Illinois
International Equity

See the Investment Section, pages 53-54 for payments to investment managers and brokers.

Introductory Section

Legislative Summary

The Ohio Legislature passed Substitute Senate Bill 345 in late 2012 with effective dates of most components of the law occurring in 2013:

- The percentage of active member contribution, which ranges between 10% - 14%, will be determined by the Board as deemed necessary to comply with the actuarial valuation requirements of ORC 5505.121. (Effective date June 24, 2013)
- The annual cost of living adjustment (COLA) applied to eligible retirees, which ranges between 0% - 3%, will be determined by the Board as deemed necessary to comply with the actuarial valuation requirements of ORC 5505.121. (Effective date January 7, 2013)
- Increase COLA eligibility age from 53 to 60. (Effective date January 7, 2013)
- Increase Final Average Salary (FAS) calculation period from 3 to 5 years for members retiring after 2014. (Effective date January 1, 2015)

In August 2013, the Board voted to set the employee contribution rate at 11.5% of payroll and set COLA (Cost of Living Adjustment) for retirees at 1.5% beginning in 2014. This action reduced the system's actuarial accrued unfunded liability by approximately \$116 million. It also brought the HPRS pension fund into compliance with the 30-year amortization requirement for the first time since the Great Recession of 2008. In addition, the Board was able to improve the solvency of the health care fund by increasing the amount of employer contributions dedicated to health care from 1.75% to 3.65% of payroll effective January 2013.

In 2013, the United States Congress took no meaningful action to improve the financial solvency of the Social Security System, Medicare, and Medicaid. 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. Cutbacks to Medicare will place additional pressure on HPRS health care benefits.

The Patient Protection and Affordable Care Act (PPACA) will have an impact on HPRS health care funding. The extent of the impact is not completely known at this time, but fees associated with the PPACA commencing in 2014 will negatively affect HPRS's health care funding.

Although not Congressional action, new GASB (Governmental Accounting Standards Board) statements 67 and 68 were established and will take effect in 2014. These new statements will change the way some liabilities will be presented in future HPRS financial statements. The overall effect should be minimal.



June 19, 2014

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, 2013. This report is intended to provide financial, investment, actuarial, and statistical information in a single publication. Working with each HPRS staff member and the various consultants employed by the HPRS, HPRS management takes 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 HPRS 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 (OSHP). Prior to this action of the Legislature, active duty members of the Patrol contributed to the Ohio Public Employees Retirement System. Currently, only sworn officers, cadets in training to become sworn officers, and communications personnel hired prior to November 2, 1989, are permitted to be contributing members of the HPRS. In 1974, the legislature authorized the HPRS to offer health care benefits to retired members, if excess funds are available.

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 *Plan Summary* portion of the Actuarial Section.

Major Plan Initiatives and Changes in 2013

The most significant changes in 2013 centered on Board actions based on pension reform legislation enacted in 2012. For the first time in nearly five years, HPRS became compliant with the 30-year amortization requirement of the Ohio Revised Code, and the system's actuarial accrued unfunded liability was reduced by approximately \$116 million. In addition, the long-term stability of our health care fund was improved. This was accomplished by the Board taking the following actions:

- Increasing the employee contribution rate from 10% to 11.5% beginning in 2014;
- Setting the COLA rate for eligible retiree at 1.5% beginning in 2014; and
- Increasing the employer contribution allocation to health care from 1.75% to 3.65% retroactive to January 2013.

During the year, staff undertook a complete overhaul of the system's databases. All retired members, spouses, surviving spouses, and dependents were contacted, all records were reviewed, and all files were updated with the most up-to-date and accurate information. This endeavor required hundreds of man-hours over several months to complete.

In 2013, the Summit County Internal Audit Department was retained again to perform internal auditing services. This year it focused primarily on an assessment of the Administration functions including benefits and investments. Although several recommendations for improvement were given, no material weaknesses were identified. The recommendations were discussed and changes or improvements were made, many being put into place prior to the completion of the audit.

The challenges encountered in 2012 by the transition to new leadership and the loss of much institutional knowledge were largely overcome in 2013 due to the professionalism, commitment, and hard work of the staff coupled with the support of the Board.

Investments

The primary objective of the State Highway Patrol Retirement System is to provide eligible members and beneficiaries with scheduled pension benefits. It is very important the Board develops and implements an investment strategy that provides the funds necessary to maintain the security and safety of the plan. With benefit recipients living longer, health care costs rising 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.

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 HPRS'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. Diversification of assets will ensure that adverse or unexpected results from a security class will not have a detrimental impact on the entire portfolio.

In November 2013, a 5-year asset liability study was completed by Hartland & Company. The study concluded the following:

- HPRS's funded status is expected to increase over time;
- HPRS is invested in an efficient portfolio that is projected to meet expected return assumptions;
- HPRS's asset allocation is generally in line with other Ohio systems and InvestorForce peers; and
- HPRS should maintain its current asset allocation targets and ranges.

The U.S. economy continued to grow in 2013, but real GDP growth declined to 1.9% for the year, down from 2.8% in 2012. The deceleration in real GDP growth was mainly attributable to reduced government spending and decelerations in personal consumption expenditures and non-residential fixed investment. HPRS's assets increased 19.6% (gross of fees except for Alternatives which was net of fees) finishing the year with a net position of \$813,952,605.

A more detailed report on investment operations and performance can be found in the *Management's Discussion and Analysis* section, beginning on page 18, and the Investment Section, beginning on page 46.

Internal Controls

The management of HPRS has implemented and is responsible for a system of internal accounting controls, designed to provide reasonable assurance of the safeguarding of assets and the reliability of financial records. Once again in 2013, the Summit County Internal Audit Department was retained to perform internal auditing services, specifically the assessment of the Administration function, benefits, and investments. Although several recommendations for improvement were given, no material weaknesses were identified. Additional functional areas will be audited in 2014.

The internal accounting controls in place are adequate to meet the purpose for which they were intended and are reviewed annually by an external auditor. The financial statements, supporting schedules, and statistical tables are presented fairly in all material respects. 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.

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 59.5% at the end of 2011. Due to changes previously described and enacted by the Board in 2013, the amortization period no longer exceeds the 30-year limit. The funding status for the period ending December 31, 2012 was 68.1%. With very favorable investment returns in 2013, we expect our funding status to see further improvement.

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, 2012. 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 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 HPRS 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. The Summit County Internal Audit Department of Akron, Ohio, was retained to perform internal auditing services.

Acknowledgements

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, ranking members of the appropriate Ohio House and Senate committees, and the Ohio Retirement Study Council.

Submitted for your review,



Mark R. Atkeson
Executive Director



Wayne A. Warner
Chief Financial Officer



Financial Section

INDEPENDENT AUDITOR'S REPORT

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

To the Board of Trustees:

Report on the Financial Statements

We have audited the accompanying basic financial statements of Ohio State Highway Patrol Retirement System (the HPRS), a component unit of the State of Ohio, as of and for the year ended December 31, 2013, and the related notes to the financial statements, which collectively comprise the HPRS' basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for preparing and fairly presenting these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes designing, implementing, and maintaining internal control relevant to preparing and fairly presenting financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to opine on these financial statements based on our audit. We audited in accordance with auditing standards generally accepted in the United States of America and the financial audit standards in the Comptroller General of the United States' *Government Auditing Standards*. Those standards require us to plan and perform the audit to reasonably assure the financial statements are free from material misstatement.

An audit requires obtaining evidence about financial statement amounts and disclosures. The procedures selected depend on our judgment, including assessing the risks of material financial statement misstatement, whether due to fraud or error. In assessing those risks, we consider internal control relevant to the HPRS' preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not to the extent needed to opine on the effectiveness of the HPRS' internal control. Accordingly, we express no opinion. An audit also includes evaluating the appropriateness of management's accounting policies and the reasonableness of their significant accounting estimates, as well as our evaluation of the overall financial statement presentation.

We believe the audit evidence we obtained is sufficient and appropriate to support our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net position of the Ohio State Highway Patrol Retirement System, as of December 31, 2013, and the respective changes in plan net position for the year then ended in accordance with the accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require this presentation to include *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 applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, consisting of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, to the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not opine or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to opine or provide any other assurance.

Supplementary and Other Information

Our audit was conducted to opine on the HPRS' basic financial statements taken as a whole. The introductory section, supplementary information, investment section, actuarial section, and statistical section, as listed in the table of contents, present 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. We subjected these schedules 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, and other additional procedures 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, actuarial section, and statistical section information 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.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 13, 2014, 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. That report describes the scope of our internal control testing over financial reporting and compliance, and the results of that testing, and does not opine on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the HPRS' internal control over financial reporting and compliance.



Kennedy Cottrell Richards LLC
June 13, 2014

Financial Highlights

- At December 31, 2013, the assets of HPRS exceeded liabilities by \$813,952,605. All of the 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 2013, HPRS's total net position increased by \$96,084,927 or 13.4%.
- HPRS's funding objective is to meet long-term benefit obligations through contributions and investment income. At December 31, 2012, the date of the most recent actuarial valuation, HPRS assets equaled 68.1% of the present value of pension obligations.
- Additions to plan net position for the year were \$173,205,948, which includes member and employer contributions of \$35,649,228 and investment gains of \$133,572,046.
- Deductions from plan net position increased 6.9% over the prior year. Of this amount, pension benefits increased by 4.6%, health care expenses increased by 11.4% and administrative expenses increased by 5.3%.

Overview of the Financial Statements

The financial statements consist of the following components:

1. Combining Statement of Plan Net Position
2. Combining Statement of Changes in Plan Net Position
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 Position provides a snapshot of account balances at year-end, 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 Position provides a summary of current year additions and deductions to the plan. At December 31, 2012, the date of the latest actuarial valuation, the current funding ratio was 68.1%. This means that HPRS had approximately \$0.68 available for each \$1.00 of projected pension liabilities.

The Combining Statement of Plan Net Position and the Combining Statement of Changes in Plan Net Position 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 the Net Position – Restricted for Pension and Post-Employment Health Care Benefits. Over time, increases and decreases in HPRS's net position are one indicator of whether the fund's financial

Financial Section

Management's Discussion and Analysis

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

Additions to Plan Net Position

Employer and member contributions, as well as income from investments, provide reserves needed to finance retirement benefits and health care. In 2013, total contributions and positive investment returns resulted in additions of \$173.2 million. Employer contributions increased by 4.4% and member contributions increased by 3.7%.

Additions to Plan Net Position

(in thousands)

	<u>2013</u>	<u>2012</u>	<u>\$ Change</u>	<u>% Change</u>
Net appreciation in fair value of investments	\$118,632	\$63,662	\$54,970	86.3
Interest and dividend income	20,503	14,363	6,140	42.7
Real estate operating income, net	118	81	37	45.7
Investment expenses	(5,682)	(4,404)	(1,278)	29.0
Employer contributions	26,566	25,446	1,120	4.4
Member contributions	9,083	8,756	327	3.7
Transfers from other Ohio systems	1,354	557	797	143.1
Health care premiums	1,571	1,284	287	22.3
Retiree Drug Subsidy	447	500	(53)	(10.6)
Prescription Drug Rebates	612	356	256	71.9
Medicare D Refunds	2	17	(15)	(88.2)
Total additions	<u>\$173,206</u>	<u>\$110,618</u>	<u>\$62,588</u>	56.6

The *Investment Section* of this report summarizes the result of investment activity for the year ending December 31, 2013.

Financial Section

Management's Discussion and Analysis

Deductions from Plan Net Position

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 2013, total deductions from the plan net position increased 6.9%, health care expenses increased by 11.4%, and administrative expenses increased by 5.4%. Refunds of member contributions increased by 423.9% and transfers of contributions to other Ohio retirement systems increased by 23.5%.

Deductions from Plan Net Position

(in thousands)

	2013	2012	\$ Change	% Change
Pension benefits	\$60,956	\$58,297	\$2,659	4.6
Refunds of member contributions	943	180	763	423.9
Health care	13,704	12,303	1,401	11.4
Administrative expenses	1,051	997	54	5.4
Transfers to other Ohio systems	467	378	89	23.5
Total deductions	<u>\$77,121</u>	<u>\$72,155</u>	<u>\$4,966</u>	6.9

Changes in Net Position

In 2013, the Net Position – Restricted for Pension and Post-Employment Health Care Benefits increased by \$96,084,927, or 13.4%. Investment income attributable to the increase in fair values of investments equaled \$118,632,230. All of the assets are available to meet HPRS's ongoing obligations to plan participants and their beneficiaries.

Changes in Net Position

(in thousands)

	2013	2012
Beginning balance	\$717,868	\$679,404
Ending balance	813,953	717,868
Total change	<u>\$96,085</u>	<u>\$38,464</u>
% change	<u>13.4%</u>	<u>5.7%</u>

Capital Assets

As of December 31, 2013, HPRS's investment in capital assets totaled \$22,426 (net of accumulated depreciation), an increase of \$4,922 or 28.1% from December 31, 2012. This investment in capital assets includes office equipment, software, and furniture for administrative use. The increase in HPRS's net investment in capital assets for the current year was wholly attributable to the acquisition of office equipment.

Financial Section

Management's Discussion and Analysis

Total Assets

In 2013, total assets increased by \$97,853,783, or 13.2%. The change in total assets was largely attributable to increases in the fair value of investments.

Assets (in thousands)				
	<u>2013</u>	<u>2012</u>	<u>\$ Change</u>	<u>% Change</u>
Cash and short term investments	\$12,036	\$12,423	(\$387)	(3.1)
Receivables	2,954	2,936	18	0.6
Investments, at fair value	824,879	726,662	98,217	13.5
Prepaid assets	53	52	1	1.9
Other assets	22	17	5	29.4
Total assets	<u>\$839,944</u>	<u>\$742,090</u>	<u>\$97,854</u>	13.2

Total Liabilities

Total liabilities increased by \$1,768,856, or 7.3%.

Liabilities (in thousands)				
	<u>2013</u>	<u>2012</u>	<u>\$ Change</u>	<u>% Change</u>
Current liabilities	\$3,221	\$2,022	\$1,199	59.3
Long-term liabilities	22,771	22,201	570	2.6
Total liabilities	<u>\$25,992</u>	<u>\$24,223</u>	<u>\$1,769</u>	7.3

Summary

The investment gains achieved by the HPRS during 2013 were the result of a strong and successful investment program, risk management, and strategic planning. In Substitute Senate Bill 345 signed by Governor Kasich on September 26, 2012, the HPRS Board was granted authority to adjust employee contributions and COLA in order to meet funding requirements set forth in the Ohio Revised Code. The Board exercised this authority by setting employee contributions at 11.5% of payroll and COLA at 1.5% beginning in 2014, and 12.5% and 1.25% respectively in 2015. This action, coupled with favorable investment returns in 2012, reduced the system's actuarial accrued unfunded liability by approximately \$116 million, while bringing HPRS into compliance with the 30-year amortization requirement. It also allowed for an additional 1.9% of employer contribution to go into the health care fund.

Requests for Information

This financial report is designed to provide retirees, members, trustees, investment managers, and the public 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:

Michael Press, Finance Director, State Highway Patrol Retirement System, 6161 Busch Boulevard, Suite 119, Columbus, OH 43229-2553. P: 614-430-3558; E: mpress@ohprs.org

Combining Statement of Plan Net Position

December 31, 2013

	Pension	Post-Employment Health Care	Total
Assets			
Cash and short-term investments	\$ 10,424,675	\$ 1,611,666	\$ 12,036,341
Receivables			
Employer contributions receivable	1,055,959	168,625	1,224,584
Member contributions receivable	842,614	-	842,614
Accrued investment income	768,271	118,775	887,046
Total receivables	2,666,844	287,400	2,954,244
Investments, at fair value			
Domestic equity	258,997,983	38,206,009	297,203,992
International equity	144,331,818	21,566,823	165,898,641
Fixed income	155,397,032	23,220,246	178,617,278
Real estate	31,384,726	4,689,672	36,074,398
Private equity	70,399,239	10,519,427	80,918,666
Hedge funds	57,564,037	8,601,523	66,165,560
Total investments	718,074,835	106,803,700	824,878,535
Prepaid expenses	45,663	7,060	52,723
Property and equipment, net	19,423	3,003	22,426
Total other assets	65,086	10,063	75,149
Total assets	731,231,440	108,712,829	839,944,269
Liabilities			
Accounts payable	714,693	110,492	825,185
Accrued payroll liabilities	134,420	20,782	155,202
Accrued pension liabilities	24,120,959	-	24,120,959
Accrued health care liabilities	-	817,154	817,154
Other liabilities	63,367	9,797	73,164
Total liabilities	25,033,439	958,225	25,991,664
Net position – restricted for pension and post-employment health care benefits	\$ 706,198,001	\$ 107,754,604	\$ 813,952,605

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

Combining Statement of Changes in Plan Net Position			
Year ending December 31, 2013			
	Pension	Post-Employment Health Care	Total
Additions			
Contributions			
Employer	\$ 22,908,182	\$ 3,658,189	\$ 26,566,371
Member	9,082,857	-	9,082,857
Transfers from other systems	1,353,520	-	1,353,520
Other income			
Health care premiums	-	1,570,692	1,570,692
Retiree drug subsidy	-	446,616	446,616
Prescription drug rebates	-	612,325	612,325
Medicare D refunds	-	1,521	1,521
Total contributions	33,344,559	6,289,343	39,633,902
Investment activity			
Net appreciation in fair value			
of investments	102,747,377	15,884,853	118,632,230
Interest and dividend income	17,757,791	2,745,374	20,503,165
Real estate operating income, net	102,394	15,830	118,224
	120,607,562	18,646,057	139,253,619
Less: investment expenses	(4,920,810)	(760,763)	(5,681,573)
Net income from investment activity	115,686,752	17,885,294	133,572,046
Total additions	149,031,311	24,174,637	173,205,948
Deductions			
Pension benefits	60,955,916	-	60,955,916
Refunds of member contributions	943,433	-	943,433
Health care expenses	-	13,703,605	13,703,605
Administrative expenses	909,929	140,676	1,050,605
Transfers to other systems	467,462	-	467,462
Total deductions	63,276,740	13,844,281	77,121,021
Change in plan net position	85,754,571	10,330,356	96,084,927
Net position – restricted for pension and post-employment health care benefits			
Balance, December 31, 2012	620,443,430	97,424,248	717,867,678
Balance, December 31, 2013	\$706,198,001	\$107,754,604	\$ 813,952,605

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 generally accepted accounting principles 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 (Governmental Accounting Standards Board) requires 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 GAAP, the management of HPRS makes estimates and assumptions that affect (1) the reported amounts of assets

Notes to the Financial Statements

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 Position.

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 \$13,703,605 for 2013 are shown on the accompanying Combining Statement of Changes in Plan Net Position.

Contributions and Benefits

Based on statutory 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.

Changes in Accounting Principles

GASB issued Statement No. 66, *Technical Corrections – 2012 – an amendment of GASB Statements No. 10 and No. 62*. This statement is effective for reporting periods beginning after December 15, 2012. Statement No. 66 resolves conflicting accounting and financial reporting guidance that could diminish the consistency of final reporting. Management has determined this statement does not impact HPRS.

GASB issued Statement No. 67, *Financial Reporting for Pension Plans – an amendment of GASB Statement No. 25*. This statement is effective for reporting periods beginning after June 15, 2013, and establishes standards for measuring and recognizing liabilities, deferred outflows and inflows of resources, and expenses/expenditures. For defined benefit pensions, Statement No. 67 identifies the methods and assumptions that should be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. This statement enhances note disclosures and

required supplementary information for both defined benefit and defined contribution plans. Management is currently evaluating this statement and its impact to HPRS financial statements.

GASB issued Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*. This statement is effective for reporting periods beginning after June 15, 2014. This statement significantly changes accounting and financial reporting for government employers (and non-employer contributing entities) that provide pension benefits through a qualifying trust – requiring a “net pension liability” on the statement of net position. Under Statement No. 68, the pension liability is determined considering various factors including cost-of-living increases, future salary increases, and future service credits. The impact on the net pension liability of differences between expected and actual investment returns will be recognized in pension expense over a closed, five-year period. This statement also enhances note disclosures and required supplementary information. Management is currently evaluating this statement and its impact to HPRS financial statements.

GASB issued Statement No. 69, *Government Combinations and Disposals of Government Operations*. This statement is effective for reporting periods beginning after December 15, 2013. This statement requires disclosures to be made about government combinations and disposals of government operations to enable financial statement users to evaluate the nature and financial effects of these transactions. Management has determined this statement does not impact HPRS.

GASB issued Statement No. 70, *Accounting and Financial Reporting for Nonexchange Financial Guarantees*, which specifies the information required to be disclosed by governments that extend nonexchange financial guarantees. This statement is effective for reporting periods beginning after June 15, 2013. Management has determined this statement does not impact HPRS.

GASB issued Statement No. 71, *Pension Transition for Contributions Made Subsequent to Measurement Date – an amendment of GASB Statement No. 68*. This statement should be applied simultaneously with the provisions of Statement No. 68. This statement amends paragraph 137 of Statement No. 68 to require that, at transition, a government recognize a beginning deferred outflow of resources for its pension contributions, if any, made subsequent to the measurement date at the beginning net pension liability. Management is currently evaluating this statement and its impact to HPRS financial statements.

Note 2 Plan Description

Organization

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

Notes to the Financial Statements

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, chief investment officer, actuary, investment consultant, medical advisor, and internal 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 other entities.

Membership

HPRS membership consisted of the following at the end of 2012 and 2013:

Membership Data		
Year ending December 31		
	<u>2013</u>	<u>2012</u>
Pension & OPEB Benefits		
Retirees & other benefit recipients	1,523	1,497
Terminated members not yet receiving benefits	14	14
Active members		
15 or more years of service	727	679
Less than 15 years of service	886	966

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. Retirement with reduced benefits is available upon reaching age 48 with 20 years of service credit. Retirement with full benefits is available upon reaching age 48 with 25 years of service credit, or age 52 with 20 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, 2013, HPRS had a DROP liability of \$22,770,174 to 134 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 were established by the Ohio General Assembly, and any change in the rates required legislative action. Legislative action occurred in 2012 and became effective in 2013. The HPRS Board was granted the authority to adjust employee contributions between a range of 10.0-14.0% of payroll.

In 2013, the member contribution rate was 10.0% of payroll and the employer contribution rate was 26.5%.

Based on the December 31, 2011, actuarial valuation, the Board allocated the employer contribution rate to pension benefits effective January 1, 2012, and OPEB as follows:

Pension	OPEB	Total
24.75%	1.75%	26.50%

Based on the December 31, 2012, actuarial valuation, the Board allocated the employer contribution rate to pension benefits effective January 1, 2013, and OPEB as follows:

Pension	OPEB	Total
22.85%	3.65%	26.50%

In August 2013, the Board exercised the new authority granted by Legislature and voted to set the employee contribution rate at 11.5% and the COLA for retirees at 1.5% beginning in 2014, and 12.5% and 1.25% respectively for 2015. These changes brought HPRS into compliance with the 30-year amortization requirement.

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

Notes to the Financial Statements

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, 2012, is as follows:

Pension Funded Status	
December 31, 2012	
Actuarially Accrued Liability	\$966,310,485
Valuation Assets	658,428,914
Unfunded Actuarially Accrued Liability	<u>\$307,881,571</u>
Assets as a % of AAL	68.1%
Active Member Payroll	\$98,117,403
UAAL as a % of Active Member Payroll	313.8%

The Schedules of Funding Progress: Pension funded status presents multi-year trend information about whether the actuarial values of plan assets are increasing or decreasing relative to the actuarial accrued liability for benefits over time. These schedules are presented in the *Required Supplementary Schedules* section.

OPEB (other post employment benefit)

The funded status of the OPEB plan at the most recent actuarial valuation, December 31, 2012, is as follows:

OPEB Funded Status	
December 31, 2012	
Actuarially Accrued Liability	\$411,467,825
Valuation Assets	99,817,173
Unfunded Actuarially Accrued Liability	<u>\$311,650,652</u>
Assets as a % of AAL	24.3%
Active Member Payroll	\$98,117,403
UAAL as a % of Active Member Payroll	317.6%

OPEB Funding Status presents multi-year trend information about whether the actuarial values of plan assets are increasing or decreasing relative to the actuarial accrued liability for benefits over time. These schedules are presented in the *Required Supplementary Schedules* section.

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 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,
- projected price inflation of 3.0%, compounded annually,
- 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 2021,
- OPEB recipients are eligible for Medicare at age 65 or at the time of a social security 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 Position

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, 2013, the plan net position was allocated to the various funds as follows:

Net Position	
December 31, 2013	
Employees’ Savings Fund	\$116,645,418
Employer’s Accumulation Fund	108,451,417
Pension Reserve fund	557,450,018
Survivors’ Benefit Fund	31,405,752
Income Fund	-
Expense Fund	-
Total	\$813,952,605

Note 4 Property and Equipment

The following is a summary of equipment, at cost, less accumulated depreciation, at December 31, 2013:

Capital Assets	
December 31, 2013	
Cost, 12/31/2012	\$136,224
(+) Additions	10,963
(-) Retirements	15,830
Cost, 12/31/2013	<u>\$131,357</u>
Accumulated depreciation, 12/31/2012	\$118,720
(+) Additions	6,041
(-) Retirements	15,830
Accumulated depreciation, 12/31/2013	<u>\$108,931</u>
Book value, 12/31/2013	<u><u>\$22,426</u></u>

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, 2013	
Domestic equity	\$297,203,992
International equity	165,898,641
Fixed income	178,617,278
Real estate	36,074,398
Private equity	80,918,666
Hedge funds	66,165,560
Total investments	<u><u>\$824,878,535</u></u>

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, 2013, the carrying value of all deposits was \$12,036,341 (including money market funds of \$7,404,738), as compared to bank balances of \$4,751,005. 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, 2013	
AAA	\$71,020,980
AA	15,977,081
A	18,374,975
BBB	21,822,324
BB	9,901,432
B	20,497,480
CCC	6,504,902
Unrated	14,518,104
Total Investments	<u>\$178,617,278</u>

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’s exposure to foreign currency risk derives from its positions in foreign currency-denominated investments. These are stated in U.S. dollars, below:

Exposure to Foreign Currency Risk in U.S. Dollars December 31, 2013	
Currency	Real Estate
Euro Currency	\$2,995,966
Total held in foreign currencies	\$2,995,966

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, 2013	
Less than 1 year	\$38,817,502
1 - 5 years	64,481,589
Greater than 5, up to 10 years	56,034,000
Greater than 10 years	19,284,187
Total	\$178,617,278

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

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, 2013, 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, OPERS invests employer contributions to provide a formula retirement benefit similar in nature to, but less than, 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 cost-of-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 2013, member and employer contribution rates were consistent across all three plans. While members in the state and local divisions may participate in all three plans, law enforcement and public safety divisions exist only within the Traditional Pension Plan. The 2013 member contribution rates were 10.00% of covered payroll for members in state and local classifications. Public safety and law enforcement members contributed 12.00% and 12.60%, respectively. Effective January 1, 2014, the member contribution rates for public safety and law enforcement members increased to 12.00% and 13.00% respectively. The 2013 employer

contribution rate was 14.00% of covered payroll. The law enforcement and public safety division employer contribution rate was 18.10% of covered payroll.

HPRS employer contributions to OPERS for the years ending December 31, 2013, 2012, and 2011, were \$98,036, \$83,482, and \$75,680, respectively, which were equal to the required contributions for each year.

In June 2012, the Governmental Accounting Standards Board (GASB) issued GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*. This accounting standard replaces GASB Statement 27, and it is effective for employer fiscal years beginning after June 15, 2014.

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 the OPEB Plan to its eligible members and beneficiaries. Authority to establish and amend the OPEB Plan is provided in Chapter 145 of the Ohio Revised Code.

OPERS issues a stand-alone financial report. Interested parties may obtain a copy by visiting <https://www.opers.org/investments/cafr.shtml>, by writing to 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 requiring public employers to fund post-retirement health care coverage through their contributions to OPERS. A portion of each employer’s contribution to OPERS is set aside for the funding of post-retirement health care coverage.

Employer contribution rates are expressed as a percentage of the covered payroll of active members. In 2013, state and local employers contributed at a rate of 14.00% of covered payroll and public safety and law enforcement employers contributed at

18.10%. These are the maximum employer contribution rates permitted by the Ohio Revised Code. Active members do not make contributions to the OPEB Plan.

OPERS' 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 for members in the Traditional Plan was 1.00% during calendar year 2013. The portion of employer contributions allocated to health care for members in the Combined Plan was 1.00% during calendar year 2013. Effective January 1, 2014, the portion of employer contributions allocated to health care was raised to 2 percent for both plans, as recommended by the OPERS Actuary. The OPERS Board of Trustees is also authorized to establish rules for the retiree or their surviving beneficiaries to pay a portion of the health care benefits provided. 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, 2013, were \$7,003, which were equal to the required contributions for the year, and included in the employer contribution amount listed earlier in this Note.

Health Care Plan

Changes to the health care plan were adopted by the OPERS Board of Trustees on September 19, 2012, with a transition plan commencing January 1, 2014. With the recent passage of pension legislation under SB 343 and the approved health care changes, OPERS expects to be able to consistently allocate 4 percent of the employer contributions toward the health care fund after the end of the transition period.

Note 8 Risk Management

HPRS purchases insurance coverage for general liability, property damage, and 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

At any given time, 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.

Financial Section

Required Supplementary Schedules

Schedule of Employer Contributions - Pension

Years ending December 31, 2008 - 2013

Year	Actuarial Annual Required Contributions	Contributions	% Contributed
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
2012	30,488,160	23,766,361	77.95
2013	35,429,985	22,908,182	64.66

Schedule of Employer Contributions and Other Contributing Entities - OPEB

Years ending December 31, 2010 - 2013

Year	Actuarial Annual Required Contributions	% Contributed by Employer	Federal Subsidy	Total % Contributed
2010	16,365,476	19.72	471,909	22.61
2011	18,600,414	8.73	422,640	11.00
2012	23,992,021	7.00	500,134	9.08
2013	24,296,709	15.06	446,616	16.89

Schedule of Funding Progress - Pension

Years ending December 31, 2007-2012

Valuation Year	Actuarially Accrued Liability ("AAL")	Valuation Assets	Unfunded Actuarially Accrued Liability ("UAAL")	Assets as a % of AAL	Active Member Payroll	UAAL as a % of Active Member Payroll
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
2011	1,047,699,686	623,360,121	424,339,565	59.5	93,126,449	455.7
2012	966,310,485	658,428,914	307,881,571	68.1	98,117,403	313.8

Schedule of Funding Progress - OPEB

Years ending December 31, 2009-2012

Valuation Year	Actuarially Accrued Liability ("AAL")	Valuation Assets	Unfunded Actuarially Accrued Liability ("UAAL")	Assets as a % of AAL	Active Member Payroll	UAAL as a % of Active Member Payroll
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
2011	424,143,941	99,001,756	325,142,185	23.3	93,126,449	349.1
2012	411,467,825	99,817,173	311,650,652	24.3	98,117,403	317.6

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, 2012
Actuarial Cost Method	Entry Age
Amortization Method	Level Percent Closed
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 60 (age 53 for members who entered DROP as of 12/29/2012 or retired before January 7, 2013)
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.

Schedule of Administrative Expenses	
Year ending December 31, 2013	
Personnel	\$ 580,097
Professional and technical services	
Computer services	71,560
Actuary	89,595
Education	5,983
Medical consulting	7,438
Audit	44,826
Legal	69,442
Miscellaneous services	2,988
Medical services	5,561
Total professional and technical services	297,393
Communications	
Printing	2,038
Postage	12,183
Telephone	4,183
Total communications	18,404
Other expenses	
Office rent	65,923
Depreciation	6,041
Insurance	29,310
Supplies	13,081
Miscellaneous	12,558
Ohio Retirement Study Council	2,744
Travel	15,224
Memberships and subscriptions	4,429
New equipment	5,401
Total other expenses	154,711
Total administrative expenses	\$ 1,050,605

Above amounts do not include investment-related administrative expenses.

Schedule of Investment Expenses	
Year ending December 31, 2013	
Personnel	\$ 217,617
Professional and technical services	
Investment services	5,181,260
Monitoring services	273,411
Total professional services	5,454,671
Other expenses	
Due diligence	-
Computer services	7,951
Memberships and subscriptions	1,107
Printing and supplies	227
Total other expenses	9,285
Total investment expenses	\$ 5,681,573

Payments to Consultants		
Year ending December 31, 2013		
Consultant	Fee	Service
Attorney General's Office	\$19,907	Legal
Bricker & Eckler	2,995	Legal
Calfee, Halter & Griswold	3,150	Legal
County Of Summit Ohio	26,798	Auditing
Earl N. Metz, M.D.	4,750	Medical
Gabriel, Roeder, Smith & Company	89,595	Actuarial
Groom Law Group	9,640	Legal
Hartland & Co.	273,411	Investment
Ice Miller LLC	18,585	Legal
John Wolfe	2,688	Medical
Kennedy Cottrell Richards LLC	17,615	Auditing
Ohio Auditor of State	414	Auditing
Squire Sanders LLP	9,975	Legal
Tucker, Ellis & West LLP	203	Legal
Vorys, Stater, Seymour & Pease	4,987	Legal
Total	\$ 484,713	

See the Investment Section, pages 53-54 for payments to investment managers and brokers.

**INDEPENDENT AUDITOR'S 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, in accordance with auditing standards generally accepted in the United States and the Comptroller General of the United States' *Government Auditing Standards*, the basic financial statements and the related notes to the financial statements of the Ohio State Highway Patrol Retirement System (the HPRS), as of and for the year ended December 31, 2013, and have issued our report thereon dated June 13, 2014.

Internal Control Over Financial Reporting

As part of our financial statement audit, we considered the HPRS' internal control over financial reporting (internal control) to determine the audit procedures appropriate in the circumstances to the extent necessary to support our opinion on the financial statements, but not to the extent necessary to opine on the effectiveness of the HPRS' internal control. Accordingly, we have not opined on it.

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 combination of internal control deficiencies resulting in a reasonable possibility that internal control will not prevent or detect and timely correct a material misstatement of the HPRS' financial statements. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all internal control deficiencies that might be material weaknesses or significant deficiencies. Given these limitations, we did not identify any deficiencies in internal control that we consider material weaknesses. However, unidentified material weaknesses may exist.

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, opining 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*.

Purpose of this Report

This report only describes the scope of our internal control and compliance testing and our testing results, and does not opine on the effectiveness of the HPRS' internal control or on compliance. This report is an integral part of an audit performed under *Government Auditing Standards* in considering the HPRS' internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in cursive script that reads "Kennedy Cottrell Richards LLC".

Kennedy Cottrell Richards LLC
June 13, 2014

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Investment Section

Investment Overview

Introduction

Chapter 5505 of the Ohio Revised Code and the Board-adopted *Investment Policy* govern investment activity at HPRS. Per Ohio Revised Code 5505.06, “The Board shall have full power to invest the funds. 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.”

HPRS’s total investment portfolio, as reflected in the *Combining Statement of Plan Net Position*, (pages 22-23) is comprised of the Pension (Defined Benefit) and Post-Employment Health Care portfolios’ assets. Defined Benefit portfolio assets originate from member and employer contributions to the system. The management of these assets is the responsibility of the HPRS Investment Committee, under the direction of the Board of Trustees, and HPRS’s Investment Consultant, Hartland & Company. Hartland & Company assists the Board with the construction and diversification of HPRS’s investment portfolio and manager selection. Additionally, they assist with matters of investment policy and asset allocation recommendations, and provide monthly and quarterly performance reviews.

Investment Policy

The Board-adopted *Investment Policy* (pages 55-72) provides information on HPRS’s investment policies and performance objectives. The policy establishes asset allocation targets, risk tolerances, return objectives, and other guidelines, such as defining the responsibilities of the fiduciaries who implement the strategies and manage HPRS’s investment portfolio.

Investment Summary

HPRS’s *Investment Summary* (page 47) includes the total fund assets of the Pension and Post-Employment Health Care portfolios. 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.

A complete listing of assets held at December 31, 2013 is available from HPRS upon request.

Investment Performance

As shown in the *Schedule of Investment Results* (page 49), performance information is reported gross-of-fees (net-of-fees for alternative investments) versus benchmark for the total fund and each asset class over selected periods. All returns are calculated in U.S. Dollars using a time-weighted rate of return. Net-of-fees returns are available from HPRS upon request.

Investment Section

Investment Summary

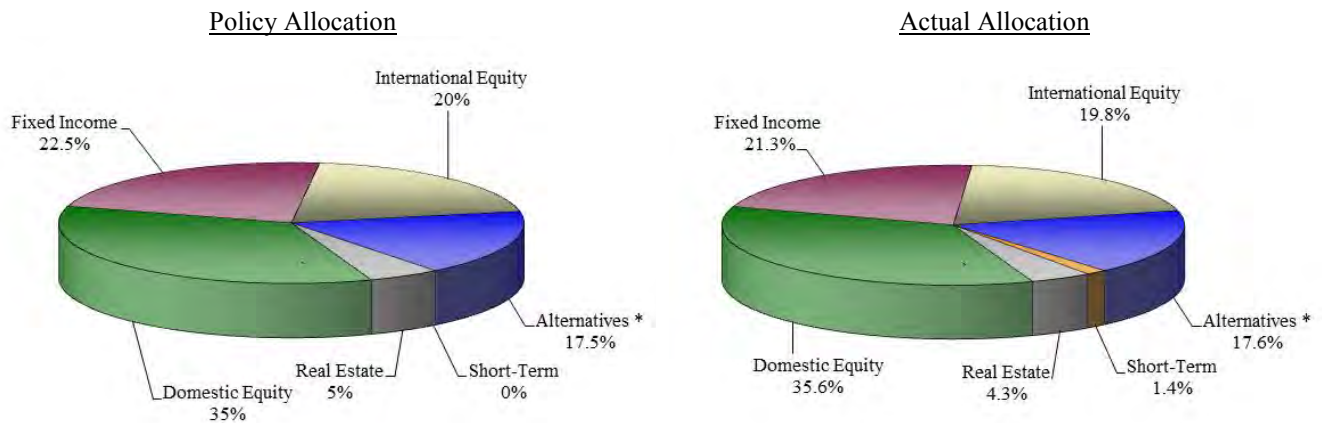
December 31, 2013

	Fair Value	Actual	Target	Range
Domestic equity	\$297,203,992	35.6%	35.0%	30-40%
Fixed income	178,617,278	21.3	22.5	17.5-27.5
Alternatives *	147,084,226	17.6	17.5	12.5-22.5
International equity	165,898,641	19.8	20.0	15-25
Short-term	12,036,341	1.4	0.0	0 – 5
Real estate	36,074,398	4.3	5.0	0 – 10
Net portfolio value	\$836,914,876	100.0%	100.0%	

* Alternatives include private equity and fund of hedge funds investments.

Asset Allocation – Total Fund

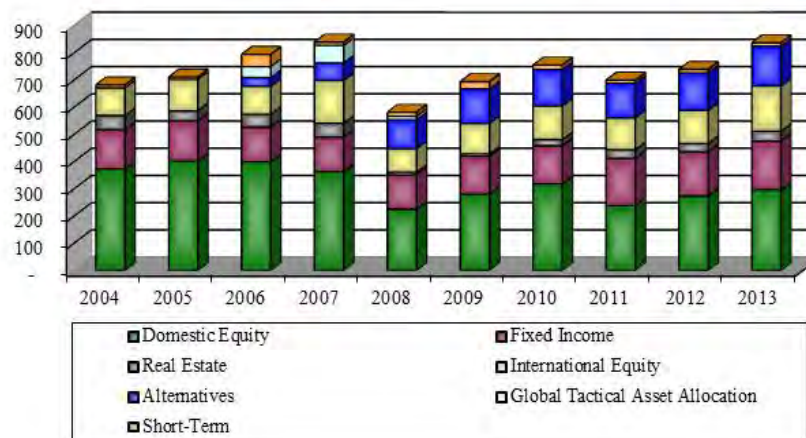
December 31, 2013



* Alternatives include private equity and fund of hedge funds investments.

Ten-Year Investment Comparison

(in millions)



* Alternatives include private equity and fund of hedge funds investments.

Economic and Market Review - 2013

In 2013, the global capital markets were mainly impacted by three developments: 1) the Federal Reserve began to taper its bond buying program, 2) Japan began its own stimulus program in an effort to drive growth and increase inflation, and 3) emerging market countries continued to report slowing economic growth and faced challenges by way of weaker commodity prices and currency depreciation. The result of these developments was higher interest rates in the U.S., a stronger U.S. dollar, a weaker Japanese Yen, and disappointing emerging market equity performance.

The U.S. economy continued to grow in 2013, but real GDP growth declined slightly to 1.9% for the year, down from 2.8% in 2012. The deceleration in real GDP growth was mainly attributable to reduced government spending and decelerations in personal consumption expenditures and nonresidential fixed investment.

Japan's stimulus program involved a dramatic rise in central bank assets as a percentage of nominal GDP, increasing nearly 20% in the year. The program was successful in increasing inflation modestly, but positive readings of core CPI were important milestones. The Yen devalued by 22% in 2013, which in-turn helped to drive exports higher.

Emerging market economies experienced slower rates of growth in 2013 due to lower commodity prices and exports related to developed market growth. Commodity dependent economies were challenged in 2013 as global demand softened. In China, investors demonstrated concern about growth

in the country's "shadow banking system"; however, the government's surplus status should mitigate this risk. In the long run, as wealth grows within these nations, so too will demand; this should reduce the dependence of emerging markets on their developed counterparts and make for an intriguing investment story.

Capital market returns were led by small and middle capitalization U.S. equities, which returned nearly 36.8%, collectively, as measured by the Russell 2500 Index. Large capitalization U.S. equities (as measured by the S&P 500 Index) also produced strong results, returning 32.4% in 2013. Developed international equities also posted strong returns in 2013 as the MSCI Europe Asia and Far East (EAFE) Index was up 23.3% for the year. Emerging market equities (as measured by the MSCI Emerging Markets Index) were among the worst performing asset classes, returning -2.3% and significantly underperforming developed market equities.

Interest rates moved higher in 2013 as the 10 Year U.S. Treasury Yield rose 127 bps to finish the year at approximately 3.0%. With higher interest rates in the United States, bond prices declined, leading to negative returns for the Barclays U.S. Aggregate Index to the tune of -2.0%. Globally, fixed income returns were challenged, particularly in emerging markets where spreads widened compared to their U.S. counterparts.

Market data courtesy of Bloomberg

Source: Hartland & Co.

Schedule of Investment Results

Year ending December 31, 2013

	2013	2012	3-Year	5-Year
Domestic Equity	35.6%	16.0%	15.9%	20.2%
S&P 500	32.4	16.0	16.2	17.9
Russell 3000	33.6	16.4	16.2	18.7
International Equity	19.3	18.1	6.4	12.0
MSCI ACWI ex US	15.8	17.4	5.6	13.3
Fixed Income	-0.8	6.5	4.3	6.8
Barclays Capital Aggregate	-2.0	4.2	3.3	4.4
Real Estate	13.6	6.5	5.3	1.4
NCREIF	11.0	11.0	12.7	3.4
Alternatives ▲	12.5	4.9	3.1	5.9
HFRI Fund of Funds Composite	8.7	4.7	2.4	4.8
Wilshire 5000 + 3% (lagged one quarter)	25.6	33.5	20.1	14.1
Total Fund	19.6	11.4	9.0	12.7
Absolute Objective	8.0	8.0	8.0	8.0
Relative/Composite Benchmark ►	16.8	13.1	9.7	13.8

▲ Includes private equity and fund of hedge funds. Performance results for private equity classes are typically reported on a quarter lag basis, adjusted for cash flow activity during the fourth quarter.

► Relative Composite Benchmark: Russell 3000, 35%; MSCI ACWI ex US Gross, 20%; NCREIF, 5%; HFRI Fund of Funds Composite Index, 12.5%; Wilshire 5000 +3% (lagged one quarter) – HPRS, 5%; Barclays Aggregate, 22.5%

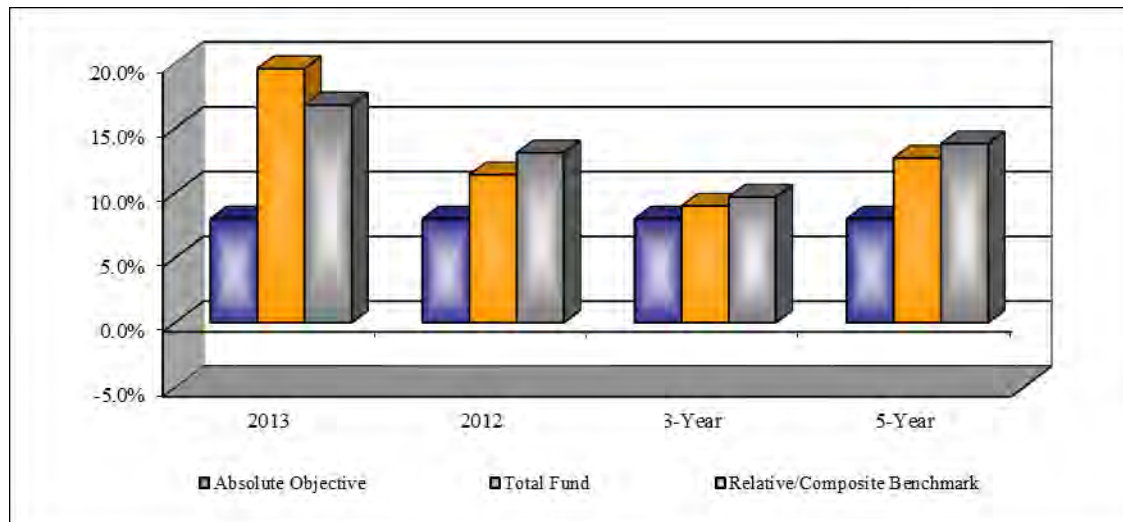
The HPRS Total Fund performance returns consist of all assets of the fund, with the exception of Johnson Institutional DROP account. All returns are calculated in U.S. Dollars using a time-weighted rate of return based on market values. Performance is net of fees for alternative investments and gross of fees on all other investments. Net of fees returns are available upon request and investment management fees vary among asset classes.

Market value adjustments made as of December 31 will be reflected in the investment returns in the next financial statement.

Source: Hartland & Co.

Total Fund Rates of Return vs Policy Benchmark

(Gross of fees)



Investment Section

Domestic Equity Holdings

December 31, 2013

<u>Security</u>	<u>Shares</u>	<u>Market Price</u>	<u>Fair Value</u>
Exxon Mobil Corp	23,350	\$101.20	\$2,363,020
JPMorgan Chase & Co	33,300	58.48	1,947,384
Pfizer Inc	51,400	30.63	1,574,382
Microsoft Corp	38,800	37.41	1,451,508
Chevron Corp	11,300	124.91	1,411,483
Wells Fargo & Company	31,000	45.40	1,407,400
Apple Inc	2,250	561.02	1,262,295
Cisco Systems Inc	54,100	22.43	1,213,463
Intel Corp	44,400	25.955	1,152,402
Citigroup Inc	20,870	52.11	1,087,536
Other	3,591,296		99,674,733
Total domestic equity securities	3,902,066		\$114,545,606
Domestic Equity Commingled Funds			
DFA Small Cap Subtrust			\$13,686,249
Vanguard Institutional Index Fund			74,702,489
Vanguard Mid Cap Index Fund			36,097,858
Wellington Mgmt Diversified Growth			58,171,790
Total domestic equity commingled funds			\$182,658,386
Total domestic equity			\$297,203,992

International Equity Holdings

December 31, 2013

<u>Security</u>	<u>Shares</u>	<u>Market Price</u>	<u>Fair Value</u>
Royal Dutch Shell Plc	6,400	\$71.27	\$456,128
Transocean Ltd	8,800	49.42	434,896
Statoil ASA	16,800	24.13	405,384
Seagate Technology	6,900	56.16	387,504
Icon Plc	9,420	40.416	380,719
Schlumberger Ltd	3,402	90.11	306,554
Total SA	4,250	61.27	260,398
Teva Pharmaceutical	6,400	40.08	256,512
XL Group Plc	7,629	31.84	242,907
Alkermes Plc	5,610	40.66	228,103
Other	180,540		3,310,166
Total international equity securities	256,151		\$6,669,271
International Equity Commingled Funds			
DFA International Small Cap Value			\$13,858,945
Driehaus International Small Cap Growth			8,790,999
Manning & Napier Overseas Series			37,504,639
OFI Emerging Markets			22,678,022
Vanguard Total International Stock Indx Fnd			30,896,694
William Blair International			45,500,071
Total international equity commingled funds			\$159,229,370
Total international equity			\$165,898,641

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

Investment Section

Fixed Income Holdings

December 31, 2013

Security	Par Value	Fair Value
USA Treasury Notes 3.125% Due 02/15/2042	\$1,750,000	\$1,508,833
USA Treasury Notes 2.750% Due 11/15/2042	1,275,000	1,008,053
Federal Home Loan Mtg Corp Series 3946 Class LN 3.5000% Due 04/15/2041	1,237,259	1,299,209
USA Treasury Notes 3.000% Due 05/15/2042	1,160,000	972,764
Federal Home Loan Mtg Corp Gold Pool #J12635, 4.000%, Due 07/01/2025	1,108,131	1,170,298
General Elec Cap Corp Sr Unsec 3.150% Due 09/07/2022	1,000,000	967,720
Verizon Communications Sr Unsec 3.500% Due 11/01/2021	1,000,000	992,810
Franklin Cnty Ohio Build America Call 06/01/20 @10005.830% Due 12/01/31	1,000,000	1,037,810
Hamilton Cnty OH Hlth Care Fac Christ Hosp PJ Rev 5.000% Due 06/01/22	1,000,000	1,072,080
Federal Home Loan Mt Corp Notes Call 07/25/2014 @100 1.000% Due 7/25/17	1,000,000	992,550
Other	42,150,700	44,807,547
Total fixed income securities	\$53,681,090	\$55,829,674
Fixed Income Commingled Funds		
Credit Suisse Secured Loan Fund		\$22,226,791
JP Morgan Investment Management		33,115,539
JP Morgan Strategic Income Opp Fund		40,067,596
Wellington World Bond		27,377,678
Total fixed income commingled funds		\$122,787,604
Total fixed income		\$178,617,278

Real Estate Holdings

December 31, 2013

Asset	Shares	Market Price	Fair Value
HPRS Busch Properties, LLC			\$3,060,000
Brandywine Rlty Tr sh Ben Int REIT	10,100	14.09	142,309
Hospitality Pptys Tr Sh Ben Int REIT	4,200	27.03	113,526
Avalon Bay Communities, Inc. REIT	900	118.23	106,407
Boston Pptys Inc REIT	500	100.37	50,185
Public Storage REITS	100	150.52	15,052
Total real estate assets	15,800		\$3,487,479
Real Estate Commingled Funds			
Henderson Global Investors			\$2,995,966
Long Wharf Real Estate Partners Fund IV			1,979,583
Oaktree Real Estate Opportunities Fund IV			9,797,294
Oaktree Real Estate Opportunities Fund V			11,288,693
Oaktree Real Estate Opportunities Fund VI			3,869,405
Pyramis Global Advisors (FREG II)			306,510
Pyramis Global Advisors (FREG III)			2,349,468
Total real estate commingled funds			\$32,586,919
Total real estate			\$36,074,398

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

Investment Section

Private Equity Holdings

December 31, 2013

<u>Asset</u>	<u>Fair Value</u>
Blue Point Capital Partners Fund III ¹	\$ -
Core Value, LLC	26,187,221
GCM Grosvenor Private Equity Opportunities Fund, LP ²	12,868,685
Kayne Anderson Energy Fund IV	1,941,158
Kayne Anderson Energy Fund V	8,653,297
Kayne Anderson Energy Fund VI	989,551
Kayne Anderson Mezzanine Partners	2,910,843
Kayne Anderson MLP Fund	9,916,806
Pantheon USA Fund VII, LP	17,451,105
Total private equity	\$80,918,666

¹Blue Point Capital Partners Fund III subscription was accepted 12/23/2013, but no capital calls occurred in 2013.

²GCM Grosvenor PE Opp Fund, LP reflects 3Q + 4Q cash flow results due to lagged reporting.

Fund of Hedge Funds Holdings

December 31, 2013

<u>Asset</u>	<u>Fair Value</u>
Evanston Capital Weatherlow Offshore Fund II	\$36,498,574
Feingold O'Keefe Distressed Loan Fund	11,324,222
GAM Fund Management Ltd.	305,731
Pinnacle Natural Resources Offshore	10,065,780
Protégé Partners, LP	406,915
Sankaty / Prospect Harbor Credit Partners	128,937
Seix Credit Opportunities Fund, LLC	7,435,401
Total fund of hedge funds	\$66,165,560

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

Summary Schedule of Investment Manager Fees

Year ending December 31, 2013

Manager	Strategy	Assets Managed	Fees
Cash and Short-term Investments			
The Vanguard Group	Money Market	\$ -	\$2,479
Domestic equity			
Ancora Investment Advisors	Micro Cap	9,350,801	57,210
DePrince, Race & Zollo, Inc.	Large Cap Value	28,708,372	144,076
Dimensional Fund Advisors	Small Cap Blend	13,686,249	75,017
James Investment Research	Micro Cap	-	15,518
LSV Asset Management	Large Cap Value	32,142,705	141,447
T. Rowe Price	Large Cap Blend	37,499,260	166,939
Vanguard Institutional Index Fund	Large Cap Blend	74,702,489	28,789
Vanguard Mid Cap Index Fund	Mid-Cap	36,097,858	28,899
WA Account	Miscellaneous	1,454	-
Wellington Mgmt Co., LLP	Large Cap Growth	58,171,790	284,193
Westfield Capital Management	Small Cap Growth	13,939,764	143,087
International Equity			
Dimensional Fund Advisors	Small Cap Value	13,858,945	85,326
Driehaus Capital Management	Small Cap Growth	8,790,999	148,301
Manning & Napier Advisors, Inc.	Large Cap Value	37,504,639	229,850
OFI Trust Company	Emerging Markets	22,678,022	175,326
Vanguard Total International Stock Indx Fnd	Large Cap Core	30,896,694	37,242
William Blair International	Large Cap Growth	45,500,071	269,675
Fixed Income			
Credit Suisse Secured Loan Fund	High Yield	22,226,791	24,941
Johnson Institutional Management	Intermediate-Term	55,829,674	103,605
JP Morgan Asset Management	Intermediate-Term	33,115,539	126,633
JP Morgan Strategic Income Opp Fund	Intermediate-Term	40,067,596	53,477
Western Asset	High Yield	-	98,749
Wellington Global Fixed Income	Global Bond	-	37,067
Wellington World Bond	Global Bond	27,377,678	40,524
Real Estate			
HPRS Busch Properties, LLC	Office Buildings	3,060,000	-
Henderson Global Investors	Specialty Real Estate	2,995,966	14,042
Long Wharf Real Estate Partners IV	Speciality Real Estate	1,979,583	111,452
Oaktree Capital Management, LP	Specialty Real Estate	24,955,392	472,684
Pyramis Global Advisors	Specialty Real Estate	2,655,978	43,113
Private Equity			
Blue Point Capital Partners	Mid-Market Buyout	-	-
Core Value, LLC	Timber	26,187,221	179,610
GCM Grosvenor Private Equity Opp Fund	Fund of Funds	12,868,685	93,251
Kayne Anderson Capital Advisors, LP	Energy, MLP, and Mezzanine	24,411,655	434,458
Pantheon USA Fund VII, LP	Fund of Funds	17,451,105	187,500
Hedge Funds			
Evanston Capital Management, LLC	Fund of Funds	36,498,574	561,838
Feingold O'Keeffe Capital	Distressed Securities	11,324,222	246,980
GAM Fund Mgmt Ltd	Fund of Funds	305,731	-
Pinnacle Natural Resources Offshore, Ltd	Fund of Funds	10,065,780	101,451
Protégé Partners, LLC	Fund of Funds	406,915	20,184
Sankaty Advisors, LLC	Distressed Securities	128,937	2,380
Seix Investment Advisors, LLC	Distressed Securities	7,435,401	110,721
Total		\$824,878,535	\$5,098,034

Summary Schedule of Broker Fees

Year ending December 31, 2013

Broker	Fees	Shares	Average Cost
KeyBanc Capital	\$146.50	10,489,940	\$0.000
First Tennessee	-	10,350,000	0.000
Suntrust Capital	21.00	7,762,298	0.000
Mutual Fund Agent	-	6,759,607	0.000
Wells Fargo Securities	356.45	5,402,610	0.000
BNY Capital Markets	-	5,384,000	0.000
Morgan Stanley	1,114.50	5,165,100	0.000
Stephens Inc	53.20	4,856,071	0.000
Barclays Capital	822.84	2,200,429	0.000
Jefferies & Co	386.60	2,166,400	0.000
Cabrera Capital	17,588.23	1,758,823	0.010
Raymond James & Associates	437.00	1,212,550	0.000
Cortview Capital	-	940,000	0.000
Pershing	15.00	900,900	0.000
Ivy Securities	7,854.43	784,943	0.010
BNY / Suntrust Capital	-	750,000	0.000
Cap Institutional Services	7,148.73	599,113	0.012
RBC Capital Markets	496.50	531,950	0.001
Ross Sinclair & Associates	-	500,000	0.000
Oppenheimer & Co	72.00	402,200	0.000
Banc of America Securities LLC	-	400,000	0.000
Duncan Williams	-	400,000	0.000
JP Morgan Securities	1,365.43	265,033	0.005
Robert Baird	3,847.89	243,809	0.016
Merrill Lynch Pierce Fenner & Smith	2,001.43	235,223	0.009
Stifel Nicolaus	913.85	201,750	0.005
Credit Suisse Fixed Income	1,368.40	126,350	0.011
UBS Securities	853.72	125,470	0.007
Citigroup Global	1,167.62	100,420	0.012
Goldman Sachs & Co	958.55	49,079	0.020
Deutsche Morg Grenfell	733.00	35,900	0.020
Sanford C. Berns	491.00	34,100	0.014
Liquidnet	850.40	32,680	0.026
BNY Convergenx	286.83	28,483	0.010
Investment Technology Group Inc	492.20	27,740	0.018
Merrill Lynch	282.90	9,410	0.030
Fox River Execution	62.30	8,900	0.007
ISI Group Inc	282.00	8,450	0.033
Pulse Trading LLC	74.80	7,480	0.010
Other	3,038.80	102,390	0.029
Total	\$55,583.30	71,359,601	\$0.000

HPRS Investment Policy

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

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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

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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, or (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 issuer, and no more than five percent in any one issue, with the exception of U.S. government securities. Diversification of the bond portfolio will be accomplished by investing in a combination of U.S. government bonds, U.S. agency bonds, domestic corporate bonds, high yield bonds, and non-U.S. 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.

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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. Micro cap mandates are excluded from this guideline.

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 --

- hold more than 15% of the account value in a single issuer,
- where a sector is greater than 10% of the benchmark, allow that sector to exceed 50% of the portfolio,
- where a sector is 10% or less of the benchmark, allow that sector to exceed 30% of the portfolio,
- invest in international-domiciled securities exceeding 20% of portfolio value in a domestic mandate,
- allow one country to be more than 20 percentage points above the country weighting of the relative benchmark in an international mandate, or
- invest in emerging markets exceeding 35% of portfolio value in a developed international mandate.

Equity managers are prohibited from investing in the following:

- Private placements
- Unregistered or restricted stock
- Derivatives
- Margin Trading/Short Sales
- Commodities
- Real Estate Property (excluding REITs)
- Guaranteed Insurance Contracts
- Securities issued by Highway Patrol Retirement System or its affiliates.

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.

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Investment Objectives, Policies, and Guidelines

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,
- provide diversity among geographical locations, property types, and property sizes,
- provide relatively stable returns consistent with the overall U.S. commercial real estate market,
- provide a strong current income stream with the potential for long-term principal growth,
- primarily contain fully developed, fully leased properties, and
- minimize the use of debt financing.

Alternatives

The purpose of the alternatives component is to provide diversification, risk reduction and to enhance the overall risk-adjusted return 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.

Active large cap equity managers are expected to exceed benchmark performance by 50 bps over rolling three and five year periods, net-of-fees, and rank in the upper 40th percentile relative to peers.

The objective of each active small/mid cap equity and international manager is to exceed benchmark performance by 100 bps over rolling three and five year periods, net-of-fees, and rank in the upper 40th 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 40th percentile relative to peers. The broad benchmarks for each type of manager, subject to revision, are as follows:

- Large cap equity – S&P 500
- Mid cap equity – Russell Mid Cap
- Small cap equity – Russell 2000
- Micro cap equity – Russell Micro Cap
- International equity – MSCI ACWI ex-US
- Fixed income – Barclays Capital Aggregate
- Real estate – NCREIF

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Hedge funds – HFRI Fund of Funds

Private equity/GTAA – Wilshire 5000 + 3%, lagged one quarter

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

- A minimum return target of eight percent, representing the fund's actuarial 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% Russell 3000 Index, 20% MSCI ACWI ex-US Index, 5% NCREIF, 12.5% HFRI Fund of Funds, 5% 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 new 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.

An existing manager may be selected for an additional mandate without the need for an RFP process. All other aspects of the Investment Process must be followed with regard to the selection of an investment manager.

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 --

- establish performance goals,
- identify and review appropriate investment policy and guidelines,
- retain outside investment and actuarial counsel,
- reject, modify, or approve a recommendation from the Investment Committee regarding the decision to hire or terminate a manager, and
- 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.

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 includes the following:

- a review of investment performance, including the investment manager's relative performance,
- 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.

Other roles of the Investment Committee include the following:

- approve the initiation of a search,
- validate that the search process was carried out appropriately,
- select and evaluate the finalists,
- attend manager presentations at HPRS's offices when necessary,
- request additional information, if warranted, and
- select the manager(s) that will be recommended to the Board for hiring.

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.

Other roles of the staff include the following:

- post the RFP to HPRS's website,
- oversee the work of the investment consultant,
- ensure the process is completed in an appropriate manner,
- ensure the Investment Committee and Board receive appropriate information,
- coordinate the development and execution of manager contracts and guidelines, and
- conduct on-site due diligence with selected finalist firm if deemed appropriate.

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.

Other roles of the investment consultant include the following:

- identify the need for new managers,
- develop the Request for Proposal (RFP),
- evaluate proposals,
- assist the Investment Committee in identifying finalists,
- attend manager presentations at HPRS's office when necessary,
- discuss candidates with the Investment Committee and the Board,
- conduct on-site due diligence with finalist firms,
- conduct on-site due diligence with existing managers when necessary,
- prepare comprehensive written search reports,
- assist in the development of investment manager guidelines,
- conduct and provide the HPRS staff with comprehensive written search reports , and
- at least every three years, the investment consultant will provide a written manager structure review. This review will go beyond a customary statistical review to elaborate on the following aspects of the manager structure: including the number of managers, allocations to managers, active versus passive management, investment management fees, and overall risk levels of the portfolio,
- provide the HPRS staff with written reviews of the investment managers in the portfolio when necessary. These reviews should include both relevant statistical data as well as qualitative assessments of the manager's performance and portfolio strategy,
- provide HPRS staff with a quarterly report that documents managers' compliance with the guidelines they are to operate within, and
- attend the ORSC or other legislative meetings with the Executive Director as needed.

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 are 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 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, and
- 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 five years, or whenever a major structural change occurs in liabilities or investment assets.

An asset allocation plan may require reconsideration when it becomes apparent that the assets are not keeping pace with the liabilities of a plan. This may occur not only as a result of the assets not performing as expected but also because the liabilities may not be behaving as expected. A new asset allocation review may be necessary when various asset classes are either failing to achieve their expected long-term returns or exhibiting volatility or correlation characteristics much different than expected.

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The Investment Consultant will conduct risk budgeting to monitor the active risk that each asset class introduces into the portfolio to ensure it remains consistent with the Board's risk tolerance on a periodic basis.

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 responsible 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 the Investment Consultant. 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.

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Investment Objectives, Policies, and 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 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 Process

I. Organize and Formalize

A. Organize

1. Manage investments in accordance with applicable laws and written investment policy statements (IPS)
2. Define, document, and acknowledge the roles and responsibilities of all involved parties (fiduciaries and non-fiduciaries)
3. Service agreements and contracts are in writing, and do not contain provisions that conflict with fiduciary standards of care
4. Assets are within the jurisdiction of appropriate courts, and are protected from theft and embezzlement

B. Formalize

1. Identify an investment time horizon
2. Identify a targeted risk level
3. Identify an expected, modeled return to meet investment objectives
4. Select asset classes which are consistent with the identified risk, return, and time horizon
5. Select asset classes which are consistent with implementation and monitoring constraints
6. Ensure that IPS contains the detail to define, implement, and manage a specific investment strategy

II. Search, Selection, and Monitoring

A. Search and Selection

1. Due diligence procedures

After asset allocation, the most important decision facing HPRS is the selection of investment managers. This process is generally as much an art as a science, and it typically takes several years to reliably determine whether the effort has been successful.

An investment management firm should be selected not because of its relationship with a particular Investment Committee member or with any other party, not because it made the glitziest presentation, and not necessarily just because it had superior performance in the recent past. While investment management fees should be a valid consideration, they should not necessarily be a decisive factor. A search for an investment manager should incorporate an examination of ownership and organizational factors pertaining to the firm, an understanding of its investment

philosophy as well as the process by which it implements that philosophy, as well as a thorough assessment of past performance and how relevant it might be for anticipating future returns.

The HPRS search for an investment manager begins with a decision as to how the mandate would fit in with overall asset allocation. The process should end with the selection of a manager in whom the Investment Committee and Board has confidence not only for its capability to fulfill its investment mandate but also for the likelihood of being treated as an important client and receiving excellent client service.

Since investment styles go in and out of favor, since very few managers outperform their benchmarks year-in and year-out, and since all firms are subject to organizational and personnel change, there are no “sure things” in investment manager selection. However, it is fair to say that the keys to a successful relationship between a client and a manager involve not just a determination of investment expertise but also the establishment of a sense of overall comfort and mutual respect.

2. Document decisions on all investment managers (including passive)

Request for Proposal

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.

Due Diligence Meeting

The Chief Investment Officer and/or the Executive Director may conduct an onsite due diligence visit to the selected investment manager’s premises.

The meetings will focus on:

- Performance Review
- Portfolio Review
- Organizational Review
- Operational Review
- Strategy Review
- Management Review

Archiving Information

An electronic record will be stored with all aspects of the search.

B. Monitoring

1. Manager Assessments

Regular Oversight

- 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 its manager to report key personnel staffing changes to the Investment Committee on or before the effective date of such changes.
- The Investment Consultant will perform onsite due diligence on every manager before an initial investment is made and will perform additional onsite due diligence periodically through normal travel and when appropriate. A written due diligence report summarizing the visit will be made available to the Investment Committee and the Board.
- 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 Investment Committee may request a presentation by existing managers if it believes the reasons for originally selecting the manager are no longer intact.

2. "Watch list" and termination procedures are followed for underperforming investment options

Watch List

A fundamental part of the monitoring process is the Investment Committee's annual determination that a manager is satisfactorily fulfilling the assigned mandate. Possible reasons for placing a manager on a watch list are 1) organizational issues such as a change in firm ownership or control, significant change in team composition or responsibilities, or departure of key personnel, 2) below average performance over both short and longer-term periods or performance inconsistent with the manager's style and mandate, or 3) other factors such as a material undisclosed guideline violation, uncorrected contract violation, unsatisfactory client service, or major regulatory or other proceedings affecting the firm.

Termination

Reasons to consider the termination of a manager may be either 1) qualitative, such as major personnel changes or other organizational issues, or 2) quantitative, involving measurable underperformance over a full market cycle or clear evidence of deviation from the manager's mandate. They may involve policy issues, such as

violation of investment policies or change in basic investment strategy, or even communication issues, such as failure to adhere to reporting requirements.

There are no hard and fast rules as to what constitutes sufficient and decisive justification to terminate a manager. In the end, it is simply a matter of the Investment Committee no longer being comfortable with and no longer having confidence in a manager.

Termination can come about by a change in any of the factors that led to the manager's hiring. This could include the Investment Committee simply making an adjustment to its asset allocation that lowers or eliminates exposure to a particular asset class or subclass; in such circumstances, a manager would be terminated despite having satisfactorily fulfilled its mandate in every way.

III. Implementation

1. Define target asset allocation and ranges

Over time, asset allocation generally accounts for a very high percentage (as much as 90%, by some estimates) of the investment return of a retirement system portfolio.

Basic Objective

The objective of asset allocation is to develop an investment program that will, at the minimum, meet or exceed the Investment Committee's assumed actuarial rate/spending rate on a consistent basis. It accomplishes this by seeking to achieve the highest possible rate of total return consistent with prudent levels of risk and liquidity. Another goal is to achieve sufficient diversification that will deliver the expected return while preserving capital and avoiding large losses. In accomplishing these goals, the investment program will ensure that funds are managed with care, skill, prudence, and diligence.

Primary Components

In determining asset allocation, the primary components are 1) analysis of the current and expected financial condition of the System, including existing assets and future liabilities, and 2) expectations of long-term returns from the capital markets and the outlook for inflation.

Asset classes considered viable for inclusion in an asset allocation study can be any aggregation of financial or real assets that have risk, return, and correlation characteristics that are clearly different from those of other asset classes and where the inclusion or exclusion has a definable affect on the risk and return expectations of the portfolio's total return. All included asset classes should have some clear value to the portfolio such as diversification benefit, return enhancement, or liquidity that is sufficiently different from that of other asset classes.

Asset classes considered for inclusion must have sufficient data and history to allow for an objective assessment of the viability or potential benefit of the asset class to the plan. There must be a sufficient basis for developing expected investment returns, risks, and correlations to other asset classes. Eligible asset classes must have sufficient size, liquidity, and cost efficiency to allow the System to invest amounts meaningful enough to have an impact on total return.

Methodology

An asset allocation plan is typically developed using a combination of quantitative and qualitative techniques. For each prospective asset class, the process requires a projected annualized return, an estimate of volatility (usually expressed as the standard deviation of expected returns), and an estimate of the asset class's correlation to the broad stock market. Using computerized simulation programs, several possible portfolios will be developed and considered, each having slightly different asset allocation distributions. The Investment Committee will consider the various alternative asset allocation plans, each of which will have its own projected return and projected volatility. The Investment Committee will consider all the alternatives and select the one that they are most comfortable with in the context of the likelihood of achieving a particular return with a level of risk that all deem acceptable. Since purely quantitative simulation analysis will often produce asset allocation alternatives that may not appear practical or realistic, such as assigning unacceptably high allocations to certain nontraditional asset classes, the process is as much an art as it is science.

IV. Model and Optimization

- A. Conduct an Asset Liability Study
- B. Conduct an Experience Study
- C. Document sources of return data for each asset class

1. Historical

Historical returns provide a factual picture of how asset classes have performed over time and through various market conditions. They are also helpful in analyzing how asset classes have performed relative to other asset classes over time or in specific time periods (correlation). The limitation of historical analysis is that it is all based on series of events that have happened in the past that may or may not occur in the future.

2. Projected - Black Litterman

In order to improve upon the historical returns, the Black-Litterman model is used to develop projected returns. Black Litterman is a mathematical model for portfolio allocation developed in 1990 at Goldman Sachs by Fischer Black and Robert Litterman. It seeks to overcome problems that institutional investors have encountered in applying modern portfolio theory in practice. The model starts with

the equilibrium assumption that the asset allocation of a certain asset class should be proportional to the market values of that asset class, and then modifies that to take into account the specific opinions about asset returns to arrive at an asset allocation.

D. Optimization – Efficient Frontier

The asset allocation process starts with a detailed study to determine how assets are to be managed for the benefit of the organization, as detailed above. The next step is to construct portfolios that are likely to deliver the highest possible return at an acceptable level of risk by utilizing the Modern Portfolio Theory. Once the target risk/reward level has been identified, various portfolios are plotted along an Efficient Frontier to optimize the amount of return contributed by each asset class while minimizing the overall level of risk for the resulting portfolio.

Asset allocation targets are generated via the modeling and optimization process. Once presented to the Investment Committee and adopted by the Board, these targets are memorialized in the Investment Policy Statement along with tolerance ranges showing the allowable deviation from target.

V. Risk Management

A. Background

The assumption of risk within the investment portfolio is necessary in order for the System to meet its obligations because there are no risk free assets which generate the required level of return. The assumption of risk should therefore be managed through a risk budgeting process.

B. Risk Budgeting

Risk budgeting is the process of determining the desired level of risk within the overall portfolio and allocating the risk within the various asset classes. Risk budgets will change over time for various reasons, including (but not limited to) changes in asset allocation, return assumption revisions, correlation between asset classes, and changes to funding levels, and therefore should be reviewed periodically to ensure that the current budget reflects all available information.

C. Monitoring

Risk will be monitored through various forms of analysis and reporting in an attempt to understand risk within the plan, and to ensure adequate compensation for the risk that is taken. Analysis will occur on various levels from individual manager portfolios up through and including the total Plan level.

In addition to relative performance evaluation, an analysis of diversification, tracking error, standard deviation, and other risk measures will be conducted and reported.

Investment Section

Investment Objectives, Policies, and Guidelines

The Investment Committee will review portfolios, asset classes, and total Plan information periodically for compliance within the overall risk budget. Portfolios or asset classes out of compliance with guidelines will be brought into compliance, or a plan for doing so will be developed. Alternatively, justification for maintaining the exposure will be provided to the Investment Committee.

D. Reporting

Reports will be assembled and presented to the Investment Committee periodically. Summary reports will be assembled and presented to the Board of Trustees periodically.

Approved, No Revisions, December 19, 2013
Revised, February 21, 2013
Revised, February 23, 2012
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



Actuarial Section

May 16, 2014

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, 2012 and an actuarial valuation report was issued as of that date.

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

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 102% of the market value of assets as of December 31, 2012.

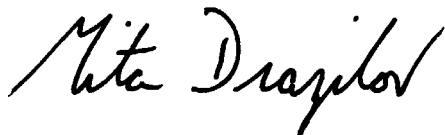
Actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rates of investment return and payroll growth, eligibility for the various classes of benefits, and longevity among retired lives. These assumptions are adopted by the Board after considering 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, 2012 valuation were based upon a study of experience during the years 2005 through 2009.

Investment return on a market value basis during 2012 was greater than assumed. The pension unfunded actuarial accrued liability is 314% of the covered payroll. The funded ratio of the pension program is 68% based upon the actuarial value of assets and in particular the retiree and beneficiary portion is only 94% funded. Recent changes enacted by Senate Bill No. 345, which were expected to result in significant long-term funding improvements for HPRS, were reflected in the December 31, 2012 valuation. These changes resulted in a pension plan amortization period of 30 years. Even with the Senate Bill No. 345 changes, the retiree health plan continues to be cause for continued review. Based upon the present contribution rate allocation, the retiree health plan is expected to remain solvent until 2024. 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, 2012 valuations, the Highway Patrol Retirement System of Ohio is meeting its basic financial objective with respect to pensions and continues to operate in accordance with actuarial principles of level percent of payroll financing. However, improvement in the funded ratio of the pension program will be important for its long-term financial security. Continued cost containment efforts can have a positive effect on the retiree health plan, but additional contribution income is needed.

Mita D. Drazilov, Randall J. Dziubek, and Brian B. Murphy 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.

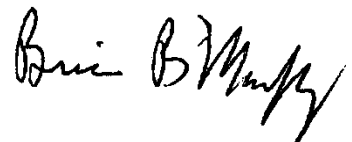
Respectfully submitted,



Mita D. Drazilov, ASA, MAAA



Randall J. Dziubek, ASA, MAAA



Brian B. Murphy, FSA, MAAA

BBM/MDD/RJD: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 December 31, 2009.

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.

Actuarial Section

Statement of Actuarial Assumptions and Methods

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

Percentage of Active Members Separating Within Next Year

<u>Sample Age</u>	<u>Disability</u>	<u>Death (Men)</u>	<u>Death (Women)</u>	<u>Other</u>
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

<u>Retirement Ages</u>	<u>Unreduced Benefit</u>	<u>Reduced Benefit</u>
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.

Short-Term Solvency Test

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

Year	(1)	(2)	(3)	Valuation Assets (\$)	% of Accrued Liabilities Covered by Reported Assets		
	Active Member Contributions (\$)	Retirees, Beneficiaries, & Deferrals (\$)	Active Members (Employer Financed Portion) (\$)		(1)	(2)	(3)
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	-
2011	104,701,161	618,984,073	324,014,452	623,360,121	100	84	-
2012 ▲	108,311,937	586,311,106	271,687,442	658,428,914	100	94	-

▲ Plan Amendment – COLA eligibility changed to age 60.
▶ Assumption or method change - Adoption of RP-2000 projected to 2020 Combined Mortality Table rates for non-disabled post-retirement mortality

Active Member Valuation Data

Years Ending December 31

Year	Active Members	Annual Payroll (\$)	Average Annual Salary (\$)	% Increase in Average Pay
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
2011	1,520	93,126,449	61,267	(0.6)
2012	1,645	98,117,403	59,646	(2.6)

Retirees and Beneficiaries Added to and Removed from Rolls

Years Ending December 31

Year	Added to Rolls		Removed from Rolls		Rolls at End of Year		% Increase in Annual Allowances	Average Annual Allowances (\$)
	Number	Annual Allowances (\$)	Number	Annual Allowances (\$)	Number	Annual Allowances (\$)		
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
2011	73	3,932,508	32	821,472	1,465	51,249,684	6.5	34,915
2012	79	3,380,304	47	983,484	1,497	53,646,504	4.7	35,832

Analysis of Financial Experience

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

Type of Activity	Gain (or Loss) for Year	
	2012	2011
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.	(\$173,926)	(\$209,554)
Disability Retirements If disability claims are less than assumed, there is a gain - if more claims, a loss.	142,398	806,119
Death-in-Service Benefits If survivor claims are less than assumed, there is a gain - if more claims, a loss.	67,718	61,822
Withdrawal from Employment If more liabilities are released by withdrawals than assumed, there is a gain -- if smaller releases, a loss.	722,990	2,302,510
Pay Increases If there are smaller pay increases than assumed, there is a gain - if greater increases, a loss.	9,912,757	10,098,393
Investment Income If there is greater investment income than assumed, there is a gain - if less income, a loss.	9,850,905	(30,337,072)
Other Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, and other events.	(885,173)	357,554
Gain (or Loss) During Year From Financial Experience	\$19,637,669	(\$16,920,228)
Non-Recurring Items Adjustments for benefit and assumption changes.	117,486,392	0
Composite Gain (or Loss) During Year	\$137,124,061	(\$16,920,228)

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. DROP members are eligible to become a candidate and vote in the retired member election.

The Superintendent of the State Highway Patrol serves by virtue of the office held. 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. The employer contribution rate was 26.5% in 2013.

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. The member contribution rate was 10% in 2013.

Service Credit

Prior to retirement, the following types of additional service credit may be purchased: (1) military service, (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

Summary of Plan Provisions

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. Due to legislative changes in 2012, final average salary will be based on a member's five highest years beginning in 2015.

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:

Summary of Plan Provisions

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. For actuarial purposes, a DROP member is considered retired; however, instead of receiving a monthly pension benefit, the member begins to accrue funds in a tax-deferred account. The DROP account is funded by the member’s continuing active contributions and a pension accrual, 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:

Summary of Plan Provisions

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 all or part of the basic Part B premium, as determined annually by the Board.

Summary of Plan Provisions

Cost of Living

The Board has been vested with the responsibility to establish a COLA rate each year between 0.0-3.0%. In August 2013, the Board set a COLA rate of 1.5% effective January 1, 2014. All COLAs granted in 2013 were 3.0%. Benefit recipients are eligible for a COLA increase after age 60 for pension effective dates on or after January 7, 2013.

For pension effective dates prior to January 7, 2013, at age 53 and thereafter, each retiree receives an annual 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.



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 87, 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 Position
- Benefit Deductions from Net Position by Type

The schedules, beginning on page 88, 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
- Benefit Recipient by Type of Benefit
- Average Benefit Payments
- Other Post-Employment Benefit Payments

Statistical Section

Changes in Net Position – Pension

Years Ending December 31

Additions	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Employer contributions	\$22,908,182	\$23,766,361	\$22,966,338	\$21,211,944	\$20,453,914	\$20,302,216	\$19,956,700	\$19,263,941	\$18,467,789	\$17,205,609
Member contributions	9,082,857	8,755,937	8,348,577	8,295,882	8,624,025	8,870,985	8,901,454	8,610,088	8,582,130	8,192,944
Transfers from other systems	1,353,520	557,316	608,366	329,335	1,009,422	632,894	717,017	648,282	1,180,951	856,496
Investment income, net	115,686,752	63,509,018	(16,385,745)	72,161,170	109,493,243	(207,583,959)	50,333,115	85,692,657	37,890,851	62,907,281
Total additions	\$149,031,311	\$96,588,632	\$15,537,536	\$101,998,331	\$139,580,604	(\$177,777,864)	\$79,908,286	\$114,214,968	\$66,121,721	\$89,162,330
Deductions										
Benefits paid to participants	60,955,916	58,297,304	55,638,322	52,498,558	49,884,126	47,939,139	44,676,510	40,343,244	37,716,268	35,187,531
Member contribution refunds	943,433	179,614	451,682	476,936	1,076,685	570,827	98,628	299,128	495,640	155,989
Administrative expenses	909,929	859,477	948,319	637,943	758,818	613,447	605,165	572,616	561,817	518,834
Transfers to other systems	467,462	377,994	1,797,986	566,615	406,147	282,987	330,539	914,950	403,975	602,345
Total deductions	\$63,276,740	\$59,714,389	\$58,836,309	\$54,180,052	\$52,125,776	\$49,406,400	\$45,710,842	\$42,129,938	\$39,177,700	\$36,464,699
Change in pension net position	\$85,754,571	\$36,874,243	(\$43,298,773)	\$47,818,279	\$87,454,828	(\$227,184,264)	\$34,197,444	\$72,085,030	\$26,944,021	\$52,697,631

Changes in Net Position – OPEB

Years Ending December 31

Additions	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Employer contributions	\$3,658,189	\$1,679,422	\$1,622,889	\$3,227,905	\$4,281,052	\$4,350,474	\$4,276,436	\$3,064,718	\$3,006,385	\$2,867,602
Investment income, net	17,885,294	10,192,983	(2,752,009)	17,734,416	21,030,418	(30,809,552)	11,254,046	15,632,184	8,998,070	12,051,961
Health care premiums	1,570,692	1,283,866	1,274,337	911,076	902,310	784,499	577,511	553,916	552,570	489,889
Retiree Drug Subsidy	446,616	500,134	422,640	471,909	513,668	317,381	329,158	336,794	-	-
Prescription Drug Rebates	612,325	356,377	366,316	-	-	-	-	-	-	-
Medicare D Refunds	1,521	17,090	6,567	-	-	-	-	-	-	-
Total additions	\$24,174,637	\$14,029,872	\$940,740	\$22,345,306	\$26,727,448	(\$25,357,198)	\$16,437,151	\$19,587,612	\$12,557,025	\$15,409,452
Deductions										
Health care expenses	13,703,605	12,302,980	12,360,917	11,447,630	9,801,853	9,648,543	11,260,675	8,871,533	9,484,829	7,438,539
Administrative expenses	140,676	137,943	159,271	106,450	123,210	98,082	97,101	92,761	92,344	86,031
Total deductions	\$13,844,281	\$12,440,923	\$12,520,188	\$11,554,080	\$9,925,063	\$9,746,625	\$11,357,776	\$8,964,294	\$9,577,173	\$7,524,570
Change in OPEB net position	\$10,330,356	\$1,588,949	(\$11,579,448)	\$10,791,226	\$16,802,385	(\$35,103,823)	\$5,079,375	\$10,623,318	\$2,979,852	\$7,884,882

Statistical Section

Benefit Deductions from Net Position by Type - Pension

Years Ending December 31

Type of Benefit*	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Age & Service	\$50,462,318	\$47,725,907	\$46,540,462	\$43,425,529	\$41,439,766	\$44,842,690	\$36,835,804	\$32,597,875	\$33,633,740	\$28,224,396
Reduced	2,224,182	2,777,829	1,829,190	1,865,761	1,828,296	1,833,554	1,693,050	1,659,235	86,287	1,573,077
Disability	4,068,926	3,840,068	3,537,849	3,305,364	3,044,325	2,927,862	2,761,851	2,534,672	2,305,544	2,051,805
Survivor	4,080,490	3,803,500	3,670,821	3,846,904	3,496,739	3,575,139	3,320,805	3,486,462	1,615,697	3,258,253
Death Benefits	120,000	150,000	60,000	55,000	75,000	80,000	65,000	65,000	75,000	80,000
Total Pension Benefits	\$60,955,916	\$58,297,304	\$55,638,322	\$52,498,558	\$49,884,126	\$53,259,245	\$44,676,510	\$40,343,244	\$37,716,268	\$35,187,531

*Previous versions of this schedule included an "Early" category, which has now been combined with "Age & Service", as the criterion for eligibility is the same.

Benefit Deductions from Net Position by Type - OPEB

Years Ending December 31

Type of Benefit	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Medical	\$7,872,163	\$6,393,584	\$6,755,757	\$6,380,295	\$4,983,739	\$5,087,073	\$6,512,976	\$4,971,003	\$5,593,232	\$4,065,457
Wellness	53,440	24,604	95,210	57,747	86,007	79,679	67,479	28,820	-	-
Prescription drugs	4,110,260	4,301,088	4,053,343	3,709,855	3,430,089	3,274,896	3,513,662	2,832,743	2,980,755	2,710,367
Medicare-B reimbursement	896,970	839,451	770,183	713,317	673,450	632,293	572,127	503,034	422,045	347,585
Dental	612,575	594,292	528,824	453,276	495,272	453,003	464,402	408,667	364,139	230,994
Vision	158,197	149,962	157,600	133,140	133,296	121,599	130,029	127,266	124,658	84,136
Total	\$13,703,605	\$12,302,981	\$12,360,917	\$11,447,630	\$9,801,853	\$9,648,543	\$11,260,675	\$8,871,533	\$9,484,829	\$7,438,539
Member premiums/adjustments	(2,631,154)	(2,157,466)	(2,069,859)	(1,382,985)	(1,415,978)	(1,101,880)	(906,669)	(890,710)	(552,570)	(489,889)
Net paid by HPRS	\$11,072,451	\$10,145,515	\$10,291,058	\$10,064,645	\$8,385,875	\$8,546,663	\$10,354,006	\$7,980,823	\$8,932,259	\$6,948,650

Principal Participating Employer

2004-2013

Year	Participating Government*	Covered Employees	Year	Participating Government*	Covered Employees
2013	Ohio State Highway Patrol	1,613	2008	Ohio State Highway Patrol	1,544
2012	Ohio State Highway Patrol	1,645	2007	Ohio State Highway Patrol	1,597
2011	Ohio State Highway Patrol	1,520	2006	Ohio State Highway Patrol	1,592
2010	Ohio State Highway Patrol	1,537	2005	Ohio State Highway Patrol	1,573
2009	Ohio State Highway Patrol	1,547	2004	Ohio State Highway Patrol	1,562

*HPRS is a single-employer pension system; 100% of members are employed by the Ohio State Highway Patrol.

Statistical Section

Benefit Recipients by Type of Benefit

December 31, 2013

Monthly Benefit	Number of Benefit Recipients	Type of Benefit					Unmodified	Retirement Option							
		1	2	3	4	5		1	2	3	4	5	6	7	
Deferred	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
\$1 - 250	22	-	-	-	21	1	22	-	-	-	-	-	-	-	-
251-500	2	-	-	-	-	2	2	-	-	-	-	-	-	-	-
501 - 750	5	-	-	-	-	5	5	-	-	-	-	-	-	-	-
751 - 1000	31	-	-	-	24	7	31	-	-	-	-	-	-	-	-
1001 - 1250	73	2	-	1	67	3	73	-	-	-	-	-	-	-	-
1251 - 1500	116	2	19	1	86	8	115	1	-	-	-	-	-	-	-
1501 - 1750	76	8	15	6	41	6	75	-	1	-	-	-	-	-	-
1751 - 2000	72	35	16	6	13	2	72	-	-	-	-	-	-	-	-
2001 - 2250	40	15	11	4	9	1	39	1	-	-	-	-	-	-	-
2251 - 2500	60	19	16	22	2	1	60	-	-	-	-	-	-	-	-
2501 - 2750	50	26	9	12	3	-	48	1	1	-	-	-	-	-	-
2751 - 3000	126	88	5	32	1	-	119	-	6	1	-	-	-	-	-
3001 - 3250	181	165	3	13	-	-	174	1	4	1	-	-	-	-	1
3251 - 3500	154	133	7	14	-	-	148	-	4	1	-	-	-	-	1
Over 3,500	647	627	7	13	-	-	627	2	14	3	-	-	-	1	-
Total	1,663	1120	108	124	267	36	1,615	6	30	6	-	-	1	2	

Type of Benefit Recipient (Includes current members in DROP)*

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

* Previous versions of this schedule included an “Early” category, which has now been combined with “Age & Service”, as the criterion for eligibility is the same.

Retirement Option

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

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

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

Average Benefit Payments					
2004-2013					
Retirement During		Years of Credited Service			Overall
		20 to <25	25 to <30	30+	
2013	Average Monthly Benefit	\$3,725	\$4,128	\$4,207	\$3,936
	Average Final Average Salary	\$5,190	\$6,164	\$5,747	\$5,677
	Number of Retirees	13	33	2	48
2012	Average Monthly Benefit	\$3,023	\$3,453	\$4,055	\$3,339
	Average Final Average Salary	\$5,146	\$5,643	\$4,922	\$5,450
	Number of Retirees	15	29	2	46
2011	Average Monthly Benefit	\$2,781	\$3,757	\$4,738	\$3,685
	Average Final Average Salary	\$5,734	\$5,779	\$6,155	\$5,694
	Number of Retirees	8	42	4	54
2010	Average Monthly Benefit	\$2,923	\$3,571	\$5,375	\$3,670
	Average Final Average Salary	\$5,185	\$5,501	\$7,123	\$5,632
	Number of Retirees	7	33	5	45
2009	Average Monthly Benefit	\$2,861	\$4,114	\$5,424	\$3,826
	Average Final Average Salary	\$4,975	\$6,016	\$7,334	\$5,792
	Number of Retirees	9	19	2	30
2008	Average Monthly Benefit	\$2,621	\$3,879	\$4,822	\$3,736
	Average Final Average Salary	\$5,182	\$6,009	\$6,491	\$5,902
	Number of Retirees	6	24	3	33
2007	Average Monthly Benefit	\$2,089	\$3,245	\$5,619	\$3,202
	Average Final Average Salary	\$4,359	\$5,138	\$7,523	\$5,174
	Number of Retirees	5	17	2	24
2006	Average Monthly Benefit	\$2,681	\$3,571	\$6,850	\$3,353
	Average Final Average Salary	\$4,838	\$5,575	\$8,852	\$5,409
	Number of Retirees	13	24	1	38
2005	Average Monthly Benefit	\$2,601	\$3,238	\$5,064	\$3,378
	Average Final Average Salary	\$4,807	\$4,995	\$6,721	\$5,176
	Number of Retirees	4	26	4	34
2004	Average Monthly Benefit	\$2,267	\$3,327	\$5,386	\$3,489
	Average Final Average Salary	\$4,781	\$5,113	\$7,109	\$5,317
	Number of Retirees	3	36	5	44

The table above does not include active DROP participants.

Other Post-Employment Benefit Payments		
2004-2013		
Year	Average Monthly Benefit*	Number of Recipients**
2013	\$480	2,378
2012	\$439	2,335
2011	\$454	2,269
2010	\$440	2,166
2009	\$390	2,095
2008	\$342	2,103
2007	\$404	2,085
2006	\$363	2,078
2005	\$390	1,958
2004	\$322	1,928

*Based on all costs associated with health care divided by the total number of covered lives. This includes: medical, prescription, Medicare B reimbursements, dental, vision, wellness, and administrative costs. This is not to be confused with the medical per member per month (PMPM) cost.

**Represents the total number of covered lives and includes pension benefit recipients, spouses, and eligible dependents. Some recipients only receive partial benefits.

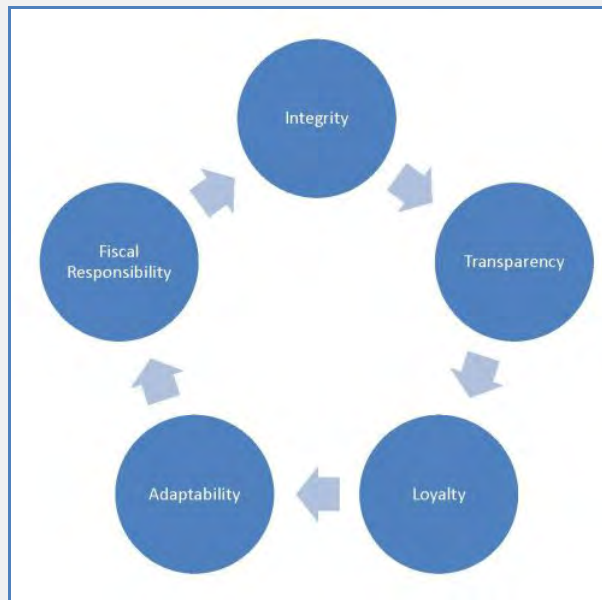
HPRS Mission Statement

Provide stable pension services that are fiscally responsible, prudently administered, and delivered with understanding and responsiveness to all members and beneficiaries.

HPRS Vision Statement

Maintain a financially sound pension system that is a leader in the oversight of our investments and liabilities, providing for the long term financial wellbeing of our retirement system.

HPRS Values



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



Dave Yost • Auditor of State

OHIO STATE HIGHWAY PATROL RETIREMENT SYSTEM

FRANKLIN COUNTY

CLERK'S CERTIFICATION

This is a true and correct copy of the report which is required to be filed in the Office of the Auditor of State pursuant to Section 117.26, Revised Code, and which is filed in Columbus, Ohio.

Susan Babbitt

CLERK OF THE BUREAU

CERTIFIED
JULY 22, 2014