Missouri Department of Transportation and Highway Patrol Employees' Retirement System

A Component Unit of the State of Missouri

2013

Scott Simon, Executive Director
Jennifer Even, Chief Financial Officer
1913 William Street, PO Box 1930
Jefferson City, MO 65102-1930
(800) 270-1271, (573) 298-6080

Serving Those **Who Keep Us Safe**

Tracy - 8 years

Anousone - 18 years

Vonda - 25 years

Tony - 9 years

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2013

MoDOT and Patrol Employees' Retirement System

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Fax Numbers

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WebSite
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Serving Those Who Keep Us Safe!

We are proud to serve those who keep us safe by providing retirement and disability benefits to the Missouri Department of Transportation (MoDOT) and Missouri State Highway Patrol (MSHP) employees and retirees. After years of dedication and hard work, retirement should be an enjoyable period in your life.

Since 1946, 131 MoDOT employees have lost their lives while performing their duties for the benefit of Missouri citizens and visitors passing through.

The MSHP was formed in 1931. Since then, 30 officers have died in the line of duty.

Seated from left, front row: Bev Wilson, Leigh Love, Angel Backes, Lois Wankum
Seated from left, second row: Omar Davis, Pam Henry, Scott Simon, Jennifer Even, Larry Krummen
Standing from left, third row: Barbara Graessle, Mariel Hale, Mary Jordan, Jennifer Johnson, Tinisha Eickhoff, Tammy Kroll

Certificate of Achievement for Excellence in Financial Reporting

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Missouri Department of Transportation and Highway Patrol Employees' Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2012

Executive Director/CEO

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
_2012_

Presented to

MoDOT and Highway Patrol
Employees' Retirement System

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

Scott Simon
Executive Director

Pam Henry
Assistant Executive Director

MoDOT & Patrol
Employees' Retirement System

November 16, 2013

To the Board of Trustees and System Members:

We are pleased to provide this Comprehensive Annual Financial Report (CAFR), of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS), for the fiscal year ended June 30, 2013. This report is intended to provide MPERS' stakeholders with a thorough review of the System's operations for the past fiscal year. The material presented in this report has been prepared in a manner intended to be useful and informative to MPERS' members, the management of the Missouri Department of Transportation (MoDOT), the Missouri State Highway Patrol (MSHP), and the elected officials of the state of Missouri.

MPERS is a traditional defined benefit pension plan providing lifetime retirement benefits to eligible MoDOT and Highway Patrol employees. The monthly retirement and survivor benefits provided by MPERS are a valuable source of retirement income for the members we serve. These benefits, when combined with social security, provide the basic foundation for our members to retire with dignity.

The average monthly benefit of a new MPERS retiree is $1,915, which equates to $22,980 per year. Given the increasing cost of living, this amount alone will not provide a life of luxury for the retiree. This monthly benefit, however, and those provided by other traditional pension plans, have a significant impact that reaches beyond the retirees served. Over the past 10 years alone, MPERS has paid over $1.8 billion in benefit payments to its members. Most of these members, retirees and beneficiaries reside in Missouri, reinvesting their retirement dollars in housing, goods, and services. In turn, the local economies benefit from these expenditures, which help to fuel the economy. It is easy to see that defined benefit pensions have a long-term positive impact on our economy and the lives of our members.

Report Contents and Structure:
This CAFR is designed to comply with the statutory reporting requirements stipulated in Sections 104.190, 104.1006, and 105.661 of the Revised Statutes of Missouri (RSMo), as amended.

To the best of our knowledge and belief, the information presented is accurate in all material respects and is reported in a manner designed to fairly present the financial position of the fund. Some amounts included in the financial statements and elsewhere may be based on estimates and judgments. These estimates and judgments were products of the best business practices available. The accounting policies followed in preparing the basic financial statements conform with U.S. generally accepted accounting principles. Financial information presented throughout the CAFR is consistent with information displayed in the basic financial statements.

The MPERS Board of Trustees is ultimately responsible for the CAFR and the basic financial statements. MPERS' Executive Director and staff prepare the information contained in the CAFR and the financial statements to assist the Board in fulfilling their statutory duty.

Systems of internal controls and supporting procedures are maintained to provide assurances that transactions are authorized, assets are safeguarded, and proper records are maintained. These controls include standards in the hiring and training of employees, the establishment of an organizational structure, and the communication of policies and guidelines throughout the organization. Inherent limitations exist in all control systems. No evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud have been detected.

In accordance with Section 104.190, RSMo, as amended, an independent auditing firm, Williams-Keepers, LLC, has

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Website: www.mpers.org • **E-Mail:** mpers@mpers.org

audited the financial statements included in this report and has issued an unqualified opinion (meaning no audit findings on MPERS' financial statements). Their opinion letter is presented in the Financial Section of this CAFR. Management's Discussion and Analysis (MD & A) immediately follows the Independent Auditors' Report and provides a narrative introduction, overview, and analysis of the basic financial statements. Management's Discussion and Analysis complements this letter of transmittal.

Background Information:
MPERS was established by Senate Bill 66. Under this legislation, employees of MoDOT and the Highway Patrol became members of the retirement system on September 1, 1955. Effective October 1, 1955, the System accepted 109 retirements.

The plan provisions have changed many times over the years. The System offers not only enhanced retirement and disability benefits, but also benefits for survivors of active and retired members, benefits for qualified terminated-vested members, and death benefits. Beginning January 1, 2011, new employees hired for the first time in a benefit eligible position are required to contribute 4% of pay to help fund the cost of their MPERS benefits.

An eleven-member Board of Trustees is responsible for the oversight of MPERS. The Trustees serve as fiduciaries to the members and are responsible for selecting and retaining competent management. The Trustees and management jointly establish sound policies and objectives, and monitor operations for compliance and oversee performance.

As an instrumentality of the state, MPERS is considered a component unit of the state of Missouri for financial reporting purposes and, as such, the financial statements in this report are also included in the State of Missouri's Comprehensive Annual Financial Report.

Fiscal Year 2013 Highlights:
The basic financial objective of MPERS is to establish and receive contributions, which, when expressed in terms of percents of active member payroll, will be sufficient to meet the present and future financial obligations of MPERS. In order to measure progress toward this fundamental objective, MPERS has annual actuarial valuations performed. The valuations (i) measure MPERS' present financial position, and (ii) establish contribution rates that provide for the current cost and level percent-of-payroll amortization of unfunded actuarial liabilities over a reasonable period. The actuarial valuations are based upon financial and participant data assumptions regarding future rates of investment return and inflation, and rate of retirement, turnover, death, and disability among MPERS' members and their beneficiaries.

An experience study is an actuarial investigation of experience for the purpose of updating the actuarial assumptions used in valuing MPERS' actuarial liabilities and establishing employer contribution rates. At least every five years, an experience study is performed to review two primary assumptions that are used in preparing our annual valuations. The demographic assumptions include a variety of information regarding our membership (e.g. new hires, retirees, deaths, etc.). The economic assumptions include an anticipated investment rate of return, price inflation and wage inflation. The experience study is even more important, in light of the recent economic and industry outlook and staff changes resulting from MoDOT's Bolder 5-Year Direction. Based on the results of this most recent study (July 2007 – June 2012), the Board adopted the recommended changes and set the following economic assumptions: 7.75% investment return, 3% price inflation, and 3.5% wage inflation. This decision to change assumptions demonstrates the Board's continued effort toward funding the System appropriately.

MPERS' new pension administration system (PensionGold) is a product of Levi, Ray and Shoup (LRS). At the time of implementation, the electronic document management system of choice was Oracle. During FY2013, MPERS switched from Oracle to PageCenterX (PCX). PCX has increased functionality and is tightly integrated with the PensionGold product. Using a single vendor (LRS) for our line of business solution and document management will streamline our maintenance and support services by allowing a single source for problem resolution.

MPERS does not employ internal Information Technology (IT) staff. For various reasons, our IT functions are maintained by four outside sources (MoDOT, Patrol, LRS, and Netsential). During the past year, Brown Smith Wallace, LLC was contracted to conduct an IT Architectural Audit to assess the risks and efficiencies of MPERS' network, applications, operational controls, and personal computers. Staff has reviewed the findings of the audit and will be making a recommendation to the Board to further enhance the privacy of member information and retain a source of professional technology guidance.

Actuarial Funding Status:
The funding objective of MPERS is to meet future benefit obligations of retirees and beneficiaries through contributions and investment earnings. All funding from MoDOT and approximately 90% of funding from the MSHP come from the State Highway and Transportation Fund. The remaining 10% of funding for the MSHP comes from other revenue sources. Although Missouri, like most of the country, is facing tough economic times, our employers continue to provide the contributions required to appropriately fund the System.

During the year ended June 30, 2013, the funded ratio of MPERS, which covers 17,761 participants, decreased slightly from 46.3% to 46.2%, due to the new lower investment return assumption. System assets earned a 13% return on a market basis, although the fund recognized a 12% rate of return on an actuarial basis after accounting for the smoothing of this year's loss, relative to our assumed rate of return, and the prior year's gains. Overall, there was an experience gain of $68 million. This gain was made up of a $56 million investment gain and a $12 million liability gain.

Each year an independent actuarial firm conducts a valuation to determine the actuarial soundness of the Plan, based on its long-term obligations and the sufficiency of current contribution levels to fund the liabilities over a reasonable time frame. In our most recent valuation, dated June 30, 2013, our actuary concluded that the System continues to be financed in accordance with actuarial principles of level percent of payroll financing. This statement is based upon the fact that the employers are contributing to the System based upon actuarially determined rates and presumes a continuation of payment of actuarially determined contributions. Additional information regarding the financial condition of the System can be found in the Actuarial Section of this report.

In an effort to address the System's underfunding situation, in September 2006, the Board of Trustees adopted a permanent funding policy that was intended to improve MPERS' funded status over time.

The permanent funding policy provided:

- The total contribution is based on the Plan's normal cost plus a 29-year amortization period for MPERS' unfunded liabilities. The financing period is a closed period starting July 1, 2007.

On September 17, 2009, after the market downturn, the Board of Trustees adopted the following temporary accelerated funding policy:

- The total contribution is based on the Plan' normal cost plus a 15-year amortization period for unfunded retiree liabilities and a 30-year amortization period for other unfunded liabilities. Both amortization periods are closed periods starting July 1, 2010.
- The temporary accelerated policy will remain in effect until such time as the retiree liability becomes 100% funded or the permanent policy produces a higher contribution rate.

As of June 30, 2013, the permanent policy is at a closed amortization period of 22 years and the temporary accelerated policy is at a closed amortization period of 11 years for unfunded retiree liabilities and 26 years for other unfunded liabilities.

Investment Activities:

State statutes require the System to make investments using the same care, skill, and diligence that a prudent person acting in a similar capacity would use. In fulfilling this obligation, the Board of Trustees has established a formal investment policy to clearly define the roles and responsibilities of the Board, staff and consultants, and to ensure that System assets are invested in a diversified portfolio following prudent investment standards. The Board of Trustees determines the broad asset allocation policies and return objectives of the Plan. To implement and execute these policies, the Board retains investment staff, consultants, a master custodian and other advisors.

As of June 30, 2013, MPERS' investment portfolio had a total market value of $1.657 billion, representing a return of 13.42% for the fiscal year. The portfolio continues to perform very well versus the peer universe. Relative to our peer group, the 13.42% return for FY2013 ranked MPERS in the 18th percentile, outpacing 82% of other public funds within the universe. The trailing three-year performance of 12.37% ranks MPERS in the top 9% of the peer universe. The trailing ten-year performance of 7.4% ranks MPERS in the top 17% of the universe.

Awards:

The Government Finance Officer Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MPERS for its FY2012 CAFR. This was the eighth consecutive year that MPERS has achieved this prestigious award. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. 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. We believe that our current CAFR continues to meet the program's requirements, and therefore, we are submitting this report to GFOA to determine its eligibility for another certificate.

MPERS also received the Public Pension Coordinating Council (PPCC), Public Pension Standards Award, in recognition of meeting professional standards for plan design and administration. This is the ninth consecutive year MPERS received the council's award. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS) and the National Council on Teacher Retirement (NCTR).

Acknowledgements and Distribution:
This report, prepared by the MPERS Executive Director and staff, is intended to provide comprehensive and reliable information about the System, to demonstrate compliance with legal provisions, and to allow for the evaluation of responsible stewardship of the System's funds.

Copies of this report are provided to the Governor, the State Auditor, and the Joint Committee on Public Employee Retirement. It is also distributed to all MoDOT divisions, district offices, Highway Patrol general headquarters, and troop headquarters. These offices form the link between MPERS and its members, and their cooperation contributes significantly to the success of MPERS. We hope all readers of this report find it informative and useful. Additional copies will be furnished upon request. An electronic version of this report is available on the MPERS website at **www.mpers.org**.

We express our gratitude to the members of the Board, the staff, the consultants, and the many people who have worked so diligently to assure the continued successful operation of MPERS. The steady, monthly benefit payments offered by defined benefit plans, like MPERS, provide peace of mind and security for retirees and their families. We also express our gratitude to the Missouri Department of Transportation and Missouri State Highway Patrol employees and retirees. MPERS is committed to "Serving Those Who Keep Us Safe" by providing a foundation for financial security to plan participants through the delivery of quality benefits, exceptional member service, and professional plan administration.

Scott Simon
Executive Director

Major J. Bret Johnson
Board Chairman

Board of Trustees

MPERS is governed by a Board of Trustees. As set out in Section 104.160 of the Revised Statutes of Missouri (RSMo), the Board is comprised of eleven members:

Major J. Bret Johnson
Board Chair
Highway Patrol Employees' Representative
Elected by MSHP Employees
Term Expires 7-1-2014

Lloyd "Joe" Carmichael
Board Vice Chair
Commission Member
Highways & Transportation Commissioner
Term Expires 3-1-2015

Senator Mike Kehoe
State Senator
District 6
Appointed by
President Pro-Tem of the Senate

Kelly Martin
Commission Member
Highways & Transportation Commissioner
Term Expires 3-1-2019

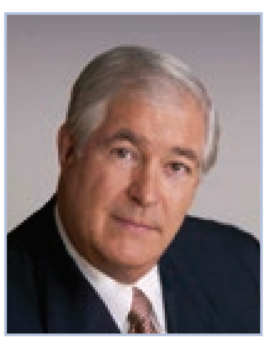
Dave Nichols
Director of the Missouri Department of Transportation
Ex-Officio Member

Colonel Ron Replogle
Superintendent of the Missouri State Highway Patrol
Ex-Officio Member

Representative Shawn Rhoads
State Representative
District 154
Appointed by the
Speaker of the House

Bob Sfreddo
MoDOT Retiree Representative
Elected by Retired Members of MoDOT
Term Expires 7-1-2014

Roger Stottlemyre
MSHP Retiree Representative
Elected by Retired Members of MSHP
Term expires 7-1-2014



Kenneth H. Suelthaus
Commission Member
Highways & Transportation Commissioner
Term Expires 3-1-2015

Todd Tyler
MoDOT Employees' Representative
Elected by MoDOT Employees
Term Expires 7-1-2014

MPERS
MoDOT & Patrol
Employees' Retirement System

Administrative Organization

Scott Simon – *Executive Director*

Omar Davis – *General Counsel*

Jennifer Even – *Chief Financial Officer*

Lois Wankum – *Executive Assistant II*

Barbara Graessle – *Administrative Assistant I*

Pam Henry – *Assistant Executive Director*

Mariel Hale – *Senior Benefit Specialist*

Mary Jordan – *Senior Benefit Specialist*

Bev Wilson – *Benefit Audit Specialist*

Angel Backes – *Senior Account Technician*

Tammy Kroll – *Intermediate Account Technician*

Leigh Love – *Account Technician*

Larry Krummen, CFA – *Chief Investment Officer*

Jennifer Johnson – *Manager-Hedge Funds and Private Equity*

Tinisha Eickhoff – *Investment Analyst*

Our Mission is to provide a foundation for financial security to plan participants by delivering quality benefits and exceptional member service through professional plan administration and prudent management of assets, at a reasonable cost to the taxpayers of Missouri.

Administrative Organization

Director's Office
The Director's Office staff provides administrative oversight and support in the areas of legislation, operations, benefits, and investments.

Financial Services
The Financial Services section is responsible for maintaining all the financial records of MPERS. The chief financial officer (accountant) interacts with the investment custodian, the auditors, the depository bank, Missouri's Department of Revenue, and the Internal Revenue Service. In addition, the accountant assists the chief investment officer in tracking and predicting target cash balances, participates in annual budget development, prepares monthly budget-to-actual reports, and calculates monthly premium payments to the long-term disability insurer. The accountant also processes MPERS' semi-monthly office payrolls, reconciles monthly benefit payments and contributions/payrolls posted, and reconciles investment activity.

Investments
The Investments section staff works closely with the general investment consultant to oversee the investment portfolio and provide consulting services to the Board and the executive director. This includes, but is not limited to: (a) formulating investment policy and asset recommendations, (b) providing recommendations on the selection, (c) monitoring and evaluating external investment advisors, (d) measuring and reporting on investment performance, (e) conducting market research on political, financial, and economic developments that may affect the System, and (f) serving as a liaison to the investment community.

Legal Services
The Legal Services section advises the executive director and Board on legal matters, reviews and approves investment and other contracts for MPERS, advises staff on the application of state and federal statutes affecting the administration of plan benefits, responds to requests from members and their attorneys related to plan benefits, engages in or oversees litigation affecting MPERS, and assists in developing policies, rules, and legislation impacting MPERS' operations and the administration of plan benefits.

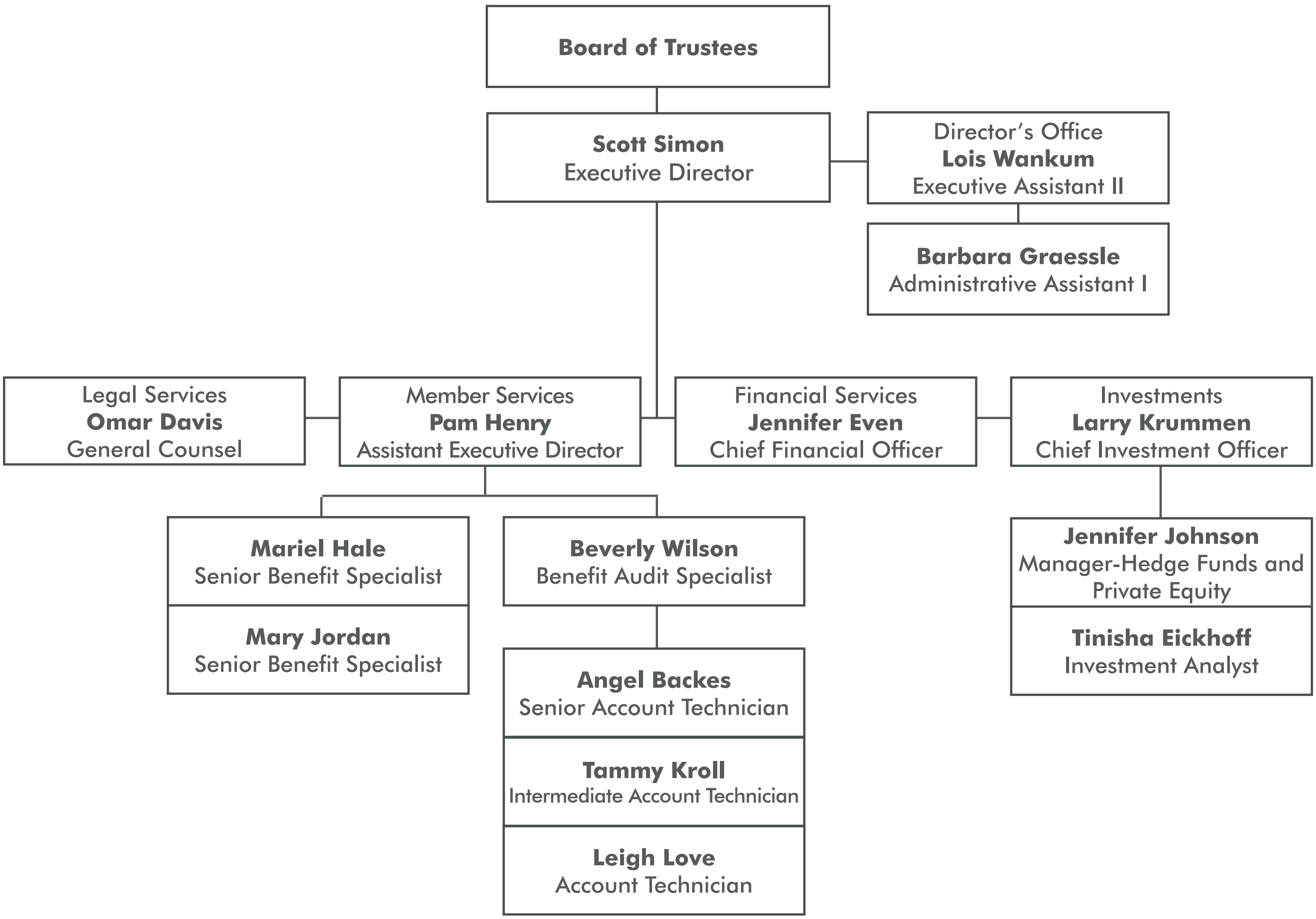
Member Services
The Member Services section consists of two units devoted to serving member needs.

The Benefits Unit is responsible for contact with the membership regarding the benefit programs administered by MPERS, which include retirement and disability. The benefit staff is responsible for preparing and delivering the pre-retirement and benefit basics seminars in addition to assisting with the development of member communication material.

The Payroll Unit is responsible for establishing and maintaining all membership records including:
(a) maintaining member data on the pension administration system, (b) verifying retirement calculations, (c) balancing payroll deductions,
(d) verifying SAM II data against exception reports, and
(e) entering payroll, service, and leave data into the System's computerized database.

Administrative Organization

The executive director of MPERS has charge of the offices and records of the System and hires such employees deemed necessary, subject to the approval of the Board of Trustees. The System employs fifteen full-time staff.



Professional Services

The following firms were retained at fiscal year-end by the Board of Trustees to serve in professional capacities or provide consultant services. Please refer to pages 39 and 40 in the Investment Section for the Schedule of Investment Expenses and Brokerage Commissions for the investment professionals.

Actuary

Gabriel, Roeder, Smith & Company
Southfield, Michigan

Auditor

Williams-Keepers, LLC
Jefferson City, Missouri

Investment Consultant

New England Pension
Consultants (NEPC)
Cambridge, Massachusetts

Legislative Consultant

Michael G. Winter Consultants, LLC
Jefferson City, Missouri

Master Trustee/Custodian

The Northern Trust Company
Chicago, Illinois

Risk Management/Insurance Consultant

Charlesworth Benefits
Overland Park, Kansas

Long-Term Disability Insurer

The Standard Insurance Company
Portland, Oregon

Professional Services

Investment Managers

Aberdeen Asset Management	Philadelphia, Pennsylvania
ABRY Partners	Boston, Massachusetts
Acadian Asset Management	Boston, Massachusetts
AEW Partners	Boston, Massachusetts
Albourne America	San Francisco, California
American Infrastructure MLP	Foster City, California
Anchorage Capital Group	New York, New York
Apollo Real Estate	New York, New York
AQR Capital Management	Greenwich, Connecticut
Artio Global Investors	New York, New York
Audax Group	Boston, Massachusetts
Barclays Global Investors	San Francisco, California
BlueCrest Capital Management	St. Peter Port, Guernsey
Brevan Howard	New York, New York
Bridgewater Associates	Westport, Connecticut
CBRE Investors	Baltimore, Maryland
Cevian Capital Limited	Jersy, Channel Islands
Clarion Partners	Jersy, Channel Islands
Colony Capital	Los Angeles, California
Concordia	New York, New York
CarVal Investors (CVI)	Minnetonka, Minnesota
Deephaven Capital Management	Minnetonka, Minnesota
EIF Management	Needham, Massachusetts
Energy & Mineral Group	Houston, Texas
Enhanced Investment Technologies (INTECH)	Palm Beach Gardens, Florida
Golub Capital	New York, New York
Grove Street Advisors	Wellesley, Massachusetts
GSO Capital Partners	New York, New York
ING Clarion	New York, New York
Luxor Capital	New York, New York
Metacapital Management	New York, New York
Natural Gas Partners	Houston, Texas
Och-Ziff Real Estate	New York, New York
Ospraie Management	New York, New York
Partner Fund Management	San Francisco, California
Pinnacle Associates	New York, New York
Principal Global Investors	Des Moines, Iowa
RMK Timberland	Winston-Salem, North Carolina
Rothschild Asset Management	New York, New York
Silchester International Investors Limited	New York, New York
Stark Investments (Shepherd)	Milwaukee, Wisconsin
Stelliam Investment Management	New York, New York
Structured Portfolio Management (SPM)	Stamford, Connecticut
Taconic Capital Advisors	New York, New York
The Clifton Group	Edina, Minnesota
The Northern Trust Company	Chicago, Illinois
Tortoise Capital Advisors	Leawood, Kansas
CenterSquare Investment Management (formally Urdang)	Plymouth Meeting, Pennsylvania
ValueAct Capital	San Francisco, California
Vectis Healthcare	Boston, Massachusetts
Vicis Capital	New York, New York
WS Capital Management	Dallas, Texas
Western Asset Management Company	Pasadena, California

Notes

Who can you count on in an emergency?

Regardless of the temperature outside or the weather conditions, MoDOT and MSHP employees continually brave the elements to keep Missourians safe. When a snow storm hits, the flood levels rise, or a tornado rips through Missouri, MoDOT crews and the MSHP troopers work around the clock clearing roads, working traffic accidents, and addressing whatever need arises to assist the public and restore normalcy.

Billie - 15 years

Frank - 7 years

Kevin - 18 years

WILLIAMS KEEPERS LLC
CERTIFIED PUBLIC ACCOUNTANTS & CONSULTANTS

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OFFICE (573) 442-6171 FAX (573) 777-7800

3220 West Edgewood, Ste. E, Jefferson City, MO 65109
OFFICE (573) 635-6196 FAX (573) 644-7240

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INDEPENDENT AUDITORS' REPORT

The Board of Trustees
Missouri Department of Transportation and
Highway Patrol Employees' Retirement System

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (the System), which comprise the statements of plan net position as of June 30, 2013 and 2012, and the related statements of changes in plan net position for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with U.S. generally accepted auditing standards. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for 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 System at June 30, 2013 and 2012, and the changes in plan net position for the years then ended, in conformity with U.S. generally accepted accounting principles.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3 through 6 and the schedules of funding progress and employer contributions on pages 24 and 25 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context.

We have applied certain limited procedures to the required supplementary information in accordance with U.S. generally accepted auditing standards, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's financial statements as a whole. The introductory, investment, actuarial and statistical sections and the additional information presented on pages 26 through 28 are presented for purposes of additional analysis and are not a required part of the financial statements. The additional information presented on pages 26 through 28 is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. The additional information presented on pages 26 through 28 has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with U.S. generally accepted auditing standards. In our opinion, the additional information presented on pages 26 through 28 is fairly stated in all material respects in relation to the financial statements as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Williams-Keepers LLC

November 6, 2013

Management's Discussion and Analysis

The management of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (the System, or MPERS) provides this discussion and analysis of the System's financial performance for the fiscal years ended June 30, 2013 and 2012. While this discussion is intended to summarize the financial status of MPERS, readers should consider this information in conjunction with the information that is furnished in the more detailed financial statements and corresponding notes.

DESCRIPTION OF BASIC FINANCIAL STATEMENTS

As required by the Governmental Accounting Standards Board (GASB) accounting standards, this financial report consists of Management's Discussion and Analysis (this section), the basic financial statements (including notes to the basic financial statements), and other required supplementary information.

Financial Statements report information about MPERS, using accounting methods similar to those used by private-sector companies, by using the economic resources measurement focus and accrual basis of accounting. These statements provide both long-term and short-term information about the System's overall financial status. These statements follow this Management's Discussion and Analysis section:

- The *Statement of Plan Net Position* includes all the System's assets and liabilities, with the difference between the two reported as net position.
- The *Statement of Changes in Plan Net Position* accounts for all the current year's additions (income) and deductions (expenses), regardless of when cash is received or paid.

Notes to the Financial Statements are included following the financial statements. The notes to the financial statements provide additional information that is essential for a full understanding of the data provided in the financial statements.

Required Supplementary Information follows the notes and further supports the information in the financial statements.

ANALYSIS OF FINANCIAL POSITION AND RESULTS OF OPERATIONS

Overall, the financial position of MPERS improved by $144 million, reported as the "change in net position." This is primarily a result of net appreciation in the fair value of investments for the year ended June 30, 2013. Even with this net increase in value in FY13, the funded status of the plan showed a decrease of 0.07%, due to a change in actuarial assumptions (assumed investment rate of return lowered from 8.25% to 7.75%).

The following schedules present summarized comparative data from the System's financial statements for each of the fiscal years ended June 30, 2013, 2012, and 2011. Following each schedule is a brief summary providing explanation and analyses of the major reasons for changes in the condensed financial statements.

Summarized Comparative Statements of Plan Net Position

	As of June 30, 2013	As of June 30, 2012	As of June 30, 2011	% Change 2013/2012	% Change 2012/2011
Cash and Receivables	$ 39,152,820	$ 17,123,877	$ 37,735,045	129%	-55%
Investments	1,651,622,264	1,533,375,977	1,548,229,721	8%	-1%
Invested Securities Lending Collateral	92,327,975	57,498,405	60,133,588	61%	-4%
Capital Assets	2,627,203	2,914,845	3,287,289	-10%	-11%
Other Assets	69,961	5,448	6,794	1184%	-20%
Total Assets	1,785,800,223	1,610,918,552	1,649,392,437	11%	-2%
Accounts Payable	5,298,016	11,356,972	32,898,778	-53%	-65%
OPEB Obligation	554,370	459,906	364,124	21%	26%
Securities Lending Collateral	94,215,127	57,698,128	60,339,959	63%	-4%
Long-Term Debt/Payable	0	0	108,900	0%	-100%
Total Liabilities	100,067,513	69,515,006	93,711,761	44%	-26%
Total Net Position	**$1,685,732,710**	**$1,541,403,546**	**$1,555,680,676**	**9%**	**-1%**

The increase in cash and receivables is primarily attributable to higher investment sales receivables as of June 30, 2013. Some fluctuations in this area are normal, based on investment activity. The decrease from FY11 to FY12 is primarily attributable to lower investment sales receivables which were normal fluctuations based on investment activity.

The System's investments represent the main component of total assets. These investments include holdings of stock, government-sponsored enterprises, bonds, mortgages, real estate, timber, securities lending collateral, limited partnerships, and other fixed income investments. The increase in fair value of investments as of June 30, 2013 is due to more favorable market conditions experienced during FY13. The FY13 investment return was 13.42%. The decrease in fair value from FY11 to FY12 is due to lower than expected investment returns, resulting in an outflow of cash to fund benefit payments that was larger than inflows generated by investment returns.

Capital assets decreased in FY13 and FY12 due to depreciation of existing assets and only minimal purchases of new equipment during the year.

The largest component of liabilities is securities lending collateral. This represents the amount owed for collateral to be returned as the result of securities lent. The increase in securities lending collateral from FY12 to FY13 is due to the increase in the fair value of investments. The decrease in securities lending collateral from FY11 to FY12 is due to the decrease in the fair value of investments. The corresponding securities lending collateral asset is valued at lower amounts at June 30, 2013, 2012 and 2011 due to the market value of the securities on loan being less than the par value.

The decrease in accounts payable for FY13 and FY12 is primarily attributable to lower investment purchases payable. Some fluctuations in this area are normal, based on investment activity.

The decrease in long-term debt/payable for FY12 reflects the reduction in the obligation for the technology project, as installment payments became due.

The OPEB obligation of $554,370 at June 30, 2013, $459,906 at June 30, 2012, and $364,124 at June 30, 2011 represents a liability recorded pursuant to GASB Statement No. 45, which was implemented in FY08. This liability reflects the System's provision of post-employment health care benefits through its participation in the MoDOT and MSHP Medical and Life Insurance Plan. As allowed by the GASB, this reporting requirement is being implemented prospectively, as prior years' data is not available. This plan is an internal service fund of the Missouri Department of

Transportation (MoDOT); therefore, assets have not been set aside. With this, the increases from FY12 to FY13 and from FY11 to FY12 are expected.

The System's total net position was $1.685 billion at June 30, 2013, a $144 million increase from the $1.541 billion at June 30, 2012. This is an offset to the slight decrease of the previous year, when net position decreased $14 million from the June 30, 2011 amount of $1.556 billion to the June 30, 2012 amount of $1.541 billion.

Summarized Comparative Statements of Changes in Plan Net Position

	Year Ended June 30, 2013	Year Ended June 30, 2012	Year Ended June 30, 2011	% Change 2013/2012	% Change 2012/2011
Contributions	$ 173,703,401	$ 166,256,835	$ 168,130,790	4%	-1%
Net Investment Income	198,139,438	42,091,564	279,612,052	371%	-85%
Other Income	1,650	13,760	33,141	-88%	-58%
Net Additions	$371,844,489	$208,362,159	$447,775,983	78%	-53%
Benefits	$224,518,100	$219,704,320	$202,153,768	2%	9%
Administrative Expenses	2,997,225	2,934,969	2,658,849	2%	10%
Total Deductions	227,515,325	$222,639,289	$204,812,617	2%	9%
Change in Net Position	$144,329,164	($14,277,130)	$242,963,366	-1111%	-106%
Net Position-Beginning	1,541,403,546	1,555,680,676	1,312,717,310	-1%	19%
Net Position-Ending	**$1,685,732,710**	**$1,541,403,546**	**$1,555,680,676**	**9%**	**-1%**

The main component of the changes in contributions to MPERS is employer contributions. In FY13 the contribution rate for the non-uniformed Highway Patrol and MoDOT increased by 5.47% from the FY12 rate, therefore increasing the FY13 amount of employer contributions, even though the contribution rate for the uniformed Highway Patrol decreased by 3.6%. This increase in total employer contributions, despite one rate decreasing, is an effect of the active member population distribution between groups. In FY12, contributions decreased slightly despite an increase in contribution rates from the prior year for all active members. This was due to a large one time transfer in from another retirement system during FY11.

Net investment income, a primary component of plan additions, resulted in income of $198 million for FY13. The income represented a 13.42% return for the fiscal year ended June 30, 2013. In comparison, the FY12 gain of $42 million represented an investment return of 2.75%. Annual fluctuations within the broad investment markets are outside of the control of the System and are expected to fluctuate from year to year. The Board of Trustees has approved a diversified asset allocation that, over time, is expected to realize the assumed actuarial rate of investment return of 7.75%. Additional information regarding investments can be found in the *Investment Section* of this report.

Benefits increased primarily due to increases in benefit rolls for all of the years shown. Detailed schedule of change can be found in the *Actuarial Section* of this report.

CURRENTLY KNOWN FACTS AND RECENT EVENTS

Based on the June 30, 2012 actuarial valuation, the Board of Trustees approved an increase in the required state contribution, effective July 1, 2013. The rate applied to non-uniformed payroll (MoDOT, civilian patrol, and MPERS) will increase from 50.92% to 54.25%. The rate applied to uniformed patrol payroll will increase slightly from 55.03% to 55.23%. The increase in the non-uniformed rate is primarily due to the decrease in number of employees by MoDOT, thus causing a significant decrease in covered payroll dollars.

Based on the June 30, 2013 actuarial valuation, the Board of Trustees approved an increase in the required state contribution rate, effective July 1, 2014. The rate applied to non-uniformed payroll (MoDOT, civilian patrol, and MPERS) will increase from 54.25% to 58.76%. The rate applied to uniformed patrol payroll will increase from 55.23% to 58.19%. The increase in both rates is partially due to a change in actuarial assumptions. The assumed investment rate of return was lowered from 8.25% to 7.75%, thus causing upward pressure on the contribution rates. Lower than expected covered payroll dollars for MoDOT was also a factor in the increase in contribution rate for that group of active members.

In June 2012, the Governmental Accounting Standards Board approved new accounting and reporting standards for pensions provided by state and local governments. The new statements are GASB 67, Financial Reporting for Pension Plans and GASB 68, Accounting and Financial Reporting for Pensions. GASB 67 applies to MPERS and other state and local pension plans established as trusts, to be implemented in fiscal years beginning after June 15, 2013. GASB 68 applies to the employers that participate in MPERS as well as other governmental employers that sponsor or contribute to pension plans, to be implemented in fiscal years beginning after June 15, 2014. The new accounting and reporting standards break the link between accounting and funding. While these changes will affect the accounting measures, they do not have an effect on the actuarial methods and assumptions used by MPERS to determine the employer contributions needed to fund the plan. The new standards will, however, impact the financial statement presentation for pension accounting and related disclosures for MPERS and participating employers.

CONTACTING THE RETIREMENT SYSTEM'S MANAGEMENT

This financial report is designed to provide a general overview of the System's finances. Questions about this report or requests for additional financial information should be sent to:

MoDOT and Patrol Employees' Retirement System
PO Box 1930
Jefferson City, MO 65102-1930
mpers@mpers.org

Statements of Plan Net Position
As of June 30, 2013 and 2012

	2013	2012
ASSETS:		
Cash	$ 94,346	$ 103,802
Receivables		
Contributions	7,094,490	6,563,911
Accrued Interest and Income	3,587,888	3,763,748
Investment Sales	28,354,363	6,675,816
Other	21,733	16,600
Total Receivables	39,058,474	17,020,075
Investments, at Fair Value		
Stocks and Rights/Warrants	538,614,992	454,126,321
Government Obligations	119,241,225	129,547,979
Corporate Bonds	30,906,710	39,478,021
Real Estate	178,171,999	150,601,879
Mortgages and Asset-Backed Securities	125,215,805	106,471,971
Absolute Return	173,502,695	135,413,759
Tactical Fixed Income	7,974,681	22,155,767
Short-Term Investments	38,068,642	52,458,363
Venture Capital & Partnerships	439,925,515	443,121,917
Total Investments	1,651,622,264	1,533,375,977
Invested Securities Lending Collateral	92,327,975	57,498,405
Prepaid Expenses	69,961	5,448
Net Investment in Capital Assets		
Land	84,000	84,000
Building	581,619	581,619
Furniture, Equipment and Software	3,479,053	3,423,799
Accumulated Depreciation	(1,517,469)	(1,174,573)
Net Investment in Capital Assets	2,627,203	2,914,845
TOTAL ASSETS	**1,785,800,223**	**1,610,918,552**
LIABILITIES:		
Short-Term Payable	0	108,900
Accounts Payable	1,427,820	1,377,330
OPEB Obligation	554,370	459,906
Security Lending Collateral	94,215,127	57,698,128
Investment Purchases	3,870,196	9,870,742
TOTAL LIABILITIES	**100,067,513**	**69,515,006**
NET POSITION HELD IN TRUST FOR PENSION BENEFITS	**$1,685,732,710**	**$1,541,403,546**

See accompanying Notes to the Financial Statements.

Statements of Changes in Plan Net Position

For the Years Ended June 30, 2013 and 2012

	2013	2012
ADDITIONS:		
Contributions-Employer	$ 170,836,117	$ 164,880,140
Contributions-Employee	503,550	202,843
Contributions-Service Transfers from Other System	1,727,834	264,954
Contributions-Other	635,900	908,898
Total Contributions	173,703,401	166,256,835
Investment Income from Investing Activities		
Net Appreciation in Fair Value of Investments	186,554,238	24,342,528
Interest and Dividends	32,892,138	34,245,407
Less: Investment Expenses	21,481,798	16,706,404
Net Investment Income	197,964,578	41,881,531
Income from Securities Lending Activities		
Security Lending Gross Income	222,357	173,381
Less: Securities Lending Expenses (Income), net	47,497	(36,652)
Net Income from Securities Lending Activities	174,860	210,033
Other Income	$1,650	$13,760
NET ADDITIONS	**371,844,489**	**208,362,159**
DEDUCTIONS:		
Monthly Benefits	224,518,100	219,704,320
Administrative Expenses	2,997,225	2,934,969
TOTAL DEDUCTIONS	**227,515,325**	**222,639,289**
NET INCREASE (DECREASE)	144,329,164	(14,277,130)
NET POSITION HELD IN TRUST FOR PENSION BENEFITS		
Beginning of Year	**1,541,403,546**	**1,555,680,676**
End of Year	**$1,685,732,710**	**$1,541,403,546**

See accompanying Notes to the Financial Statements.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

As established under Section 104.020 of the Revised Statutes of Missouri (RSMo), the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS) is a body corporate and an instrumentality of the State of Missouri (State). Due to the nature of MPERS' reliance on funding from the Missouri Department of Transportation (MoDOT) and the Missouri State Highway Patrol (MSHP) and control of the overall plan document by the legislative and executive branches of state government, MPERS is considered a part of the State of Missouri financial reporting entity and is included in the State's financial reports as a component unit shown as a pension trust fund.

Note 1 (a) - Basis of Accounting

The financial statements were prepared using the accrual basis of accounting. Contributions are due to MPERS when employee services have been performed and paid. Contributions are recognized as revenues when due, pursuant to statutory requirements. Benefits are recognized when due and payable and expenses are recorded when the corresponding obligations are incurred. Dividend income is recognized when dividends are declared. Interest income is recognized when earned.

Note 1 (b) - Method Used to Value Investments

Investments are reported at fair value on a trade date basis. Bonds and stocks traded on a national or international exchange are valued at the reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar instruments. The fair value of real estate and timber investments are based on net asset value estimates provided by the general partners' administrators or portfolio managers, which are compared to independent appraisals. Investments that do not have an established market are reported at estimated fair value. The fair value of the absolute return, venture capital and partnership portfolios are based on valuations of the underlying companies as reported by the general partner or portfolio manager.

Note 1 (c) - Net Investment in Capital Assets

MPERS capitalizes assets with an expected useful life greater than one year and a cost greater than $1,000. Capital assets are depreciated on the straight-line method over the estimated useful lives of the related assets. The estimated useful lives are as follows:

Furniture, Equipment and Software	3 – 10 years
Building and Improvements	30 years

Note 1 (d) - Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

NOTE 2 – PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION

MPERS is a body corporate and an instrumentality of the state as a multiple-employer, public employee retirement system with one plan that has three benefit structures known as the Closed Plan, the Year 2000 Plan, and the Year 2000 Plan-2011 Tier. The plan provides retirement, survivor, and disability benefits for employees of MoDOT, MSHP, and MPERS' staff. The plan is administered in accordance with the requirements of a cost sharing, multiple-employer, public employee retirement plan under the Revised Statutes of Missouri. In MPERS are vested the powers and duties specified in sections 104.010 to 104.312, 104.601 to 104.805, and 104.1003 to 104.1093, RSMo., and such other powers as may be necessary or proper to enable it, its officers, employees, and agents to carry out fully and effectively all the purposes outlined pursuant to these sections. Responsibility for the operation and administration of the System is vested in the Board of Trustees. Detailed information regarding contributions can be found in Note 5.

Generally, all covered employees hired before July 1, 2000 are eligible for membership in the Closed Plan. All covered employees hired on or after July 1, 2000 and before January 1, 2011 are eligible for membership in the Year 2000 Plan. All covered employees hired on or after January 1, 2011 are eligible for membership in the Year 2000 Plan's 2011 Tier.

Membership in the Closed Plan, Year 2000 Plan, and 2011 Tier as of June 30

	2013			2013	2012
	Closed	**Year 2000**	**2011 Tier**	**Total**	**Total**
Retirees, Beneficiaries, and Disabilities Currently Receiving Benefits	5,146	3,180	0	8,326	8,068
Terminated Employees Entitled to But Not Yet Receiving Benefits	1,630	523	0	2,153	2,038
Active Employees					
Vested	3,627	2,391	0	6,018	6,232
Non-Vested	0	659	659	1,318	1,212
Total Membership	**10,403**	**6,753**	**659**	**17,815**	**17,550**

Closed Plan Description

Employees covered by the Closed Plan are fully vested for benefits upon receiving 5 years of creditable service. Under the Closed Plan, MoDOT and civilian employees may retire with full benefits upon the earliest of attaining:

- Age 65 with 4 or more years of creditable service (active);
- Age 65 with 5 or more years of creditable service (terminated & vested);
- Age 60 with 15 or more years of creditable service (active or terminated & vested); or
- "Rule of 80" – at least age 48 with sum of member's age and service equaling 80 or more (active or terminated & vested).

The following provisions apply for uniformed patrol members of the Closed Plan:

- Age 55 with 4 or more years of creditable service (active);
- Age 55 with 5 or more years of creditable service (terminated & vested);
- "Rule of 80" – at least age 48 with sum of member's age and service equaling 80 or more (active or terminated & vested); or
- Mandatory retirement at age 60 (active).

All non-uniformed members may retire early, with reduced benefits, at age 55 with at least 10 years of creditable service.

The base benefit in the Closed Plan is equal to 1.6% multiplied by the final average pay multiplied by years of creditable service. For members of the uniformed patrol, the base benefit is calculated by applying the same formula, then multiplying the product by 1.333333.

Retired uniformed members will receive an additional benefit of $90 per month, plus cost-of-living adjustments (COLAs), until attainment of age 65. This payment, however, is reduced by any amount earned during gainful employment. This benefit is not available to uniformed members hired after January 1, 1995.

For members employed prior to August 28, 1997, COLAs are provided annually based on 80% of the increase in the consumer price index for all urban consumers for the United States (CPI-U). The minimum rate is 4% and the maximum rate is 5%, until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated and the annual COLA rate will be equal to 80% of the increase in the CPI-U (annual maximum of 5%). For members employed on or after August 28, 1997, COLAs are provided annually based on 80% of the increase in the CPI-U, up to a maximum rate of 5%.

The BackDROP is a payment option that is available to eligible members upon retirement. This option provides for a benefit to be calculated as if the member elected to retire at a previous date. If the BackDROP is elected, the monthly benefit payable on the actual retirement date is based on the benefit that would have been received by the member had he/she left employment and retired on the BackDROP date. In addition, the member will receive a lump sum payment equal to 90% of the life income annuity amount the member would have received during the BackDROP period. This lump sum amount includes any COLAs and other benefit increases; also, credit will be received for the unused sick leave balance as of the date of retirement.

The life income annuity payment option (which contains no provision for survivorship) and the life income with 60 or 120 month guaranteed payment options are available to all members. Joint and 50% or 100% survivor options are available if married at the time of retirement. In the Closed Plan, the reduction for the joint & 100% survivor option is based on the difference between the age of the member and the survivor. There is no reduction for the joint and 50% survivor option.

If a reduced joint and survivor option is chosen at the time of retirement and the spouse precedes the member in death, the benefit will revert back (pop-up) to a normal annuity.

Members may name a new spouse for survivor benefits if:
- They were single at retirement and since married;
- They elected a spouse option at the time of retirement, the spouse preceded the member in death, and then a remarriage occurred.

The member has 1 year from the date of marriage to re-elect a payment option and name a new spouse.

All members who retire from active employment or long-term disability, or begin receiving normal or work-related disability benefits, on or after September 28, 1985, are provided a $5,000 death benefit payable to designated beneficiaries.

Year 2000 Plan Description
Employees covered by the Year 2000 Plan are fully vested for benefits upon earning 5 years of creditable service. Under the Year 2000 Plan, MoDOT and civilian employees may retire with full benefits upon the earliest of attaining:
- Age 62 and with 5 or more years of creditable service (active or terminated & vested);
- "Rule of 80" – at least age 48 with sum of member's age and service equaling 80 or more (active).

The following provisions apply for uniformed patrol members of the Year 2000 Plan:
- "Rule of 80" – at least age 48 with sum of member's age and service equaling 80 or more (active);
- Mandatory retirement at age 60 with 5 or more years of creditable service (active only).

All members may retire early with reduced benefits at age 57 with at least 5 years of creditable service.

The base benefit in the Year 2000 Plan is equal to 1.7% multiplied by the final average pay multiplied by years of creditable service. Members retiring under the Rule of 80, and uniform patrol members retiring at the mandatory retirement age (currently 60) with 5 years of creditable service, receive an additional temporary benefit until age 62. The temporary benefit is equivalent to 0.8% multiplied by final average pay multiplied by years of creditable service.
COLAs are provided annually based on 80% of the increase in the CPI-U, up to a maximum rate of 5%.

The BackDROP is a payment option that may be available to members upon retirement. This option provides for a monthly benefit to be calculated as if the member elected to retire at a previous date. If the BackDROP is elected, the monthly benefit payable on the actual retirement date is based on the benefit that would have been received by the member had he/she left employment and retired on the BackDROP date. In addition, the member will receive a lump sum payment equal to 90% of the life income annuity amount the member would have received during the BackDROP period. This lump sum amount includes any temporary benefits, COLAs and other benefit increases; also, credit will be received for the unused sick leave balance as of the date of retirement.

The life income annuity payment option (with no provision for survivorship) and the life income with 120 or 180 months guaranteed payment options are available to all members. Joint and 50% or 100% survivorship options are available if married at the time of retirement. The reduction for the joint and 50% or 100% survivor options is based on the member's age at retirement, as well as the age difference between the member and the survivor.

If a reduced joint and survivor option is chosen at the time of retirement and the spouse precedes the member in death, the benefit will revert back (pop-up) to a normal annuity.

Members may name a new spouse for survivor benefits if:
- They were single at retirement and since married;
- They elected a spouse option at the time of retirement, the spouse preceded the member in death, and then a remarriage occurred.

The member has 1 year from the date of marriage to re-elect the payment option and name a new spouse.

All members who retire from active employment or long-term disability, or begin receiving work-related disability benefits, on or after July 1, 2000, are provided a $5,000 death benefit payable to designated beneficiaries.

Year 2000 Plan-2011 Tier Description

Employees covered by the 2011 Tier are fully vested for benefits upon earning 10 years of creditable service. Under the 2011 Tier, MoDOT and civilian employees may retire with full benefits upon the earliest of attaining:

- Age 67 and with 10 or more years of creditable service (active or terminated & vested);
- "Rule of 90" – at least age 55 with sum of member's age and service equaling 90 or more (active only).

Active MoDOT and civilian employees may retire early with reduced benefits at age 62 with at least 10 years of creditable service.

The following provisions apply for uniformed patrol members of the 2011 Tier:

- Age 55 and with 10 or more years of creditable service (active only);
- Mandatory retirement at age 60 with no minimum service amount (active only).

Terminated and vested uniformed patrol employees may retire at age 67 with 10 or more years of creditable service.

The base benefit in the 2011 Tier is equal to 1.7% multiplied by the final average pay multiplied by years of creditable service. Members retiring under the Rule of 90, and uniform patrol members retiring at the mandatory retirement age (currently 60) or at age 55 with 10 years of creditable service, receive an additional temporary benefit until age 62. The temporary benefit is equivalent to 0.8% multiplied by final average pay multiplied by years of creditable service.

COLAs are provided annually based on 80% of the change in the CPI-U, up to a maximum rate of 5%.

The life income annuity payment option (with no provision for survivorship) and the life income with 120 or 180 months guaranteed payment options are available to all members. Joint and 50% or 100% survivorship options are available if married at the time of retirement. The reduction for the joint and 50% or 100% survivor options is based on the member's age at retirement, as well as the age difference between the member and the survivor.

If a reduced joint and survivor option is chosen at the time of retirement and the spouse precedes the member in death, the benefit will revert back (pop-up) to a normal annuity.

Members may name a new spouse for survivor benefits if:

- They were single at retirement and since married;
- They elected a spouse option at the time of retirement, the spouse preceded the member in death, and then a remarriage occurred.

The member has 1 year from the date of marriage to re-elect the payment option and name a new spouse.

All members who retire from active employment or long-term disability, or begin receiving work-related disability benefits, on or after January 1, 2011, are provided a $5,000 death benefit payable to designated beneficiaries.

Contributions

Beginning January 1, 2011, employee contributions of 4% of gross pay are required for those covered by the Year 2000 Plan-2011 Tier.

Employer contributions are determined through annual actuarial valuations. Administrative expenses are financed through contributions from MoDOT, MSHP and MPERS, and investment earnings.

MoDOT, MSHP and MPERS are required to make contributions to the plan based on the actuarially determined rate. Prior to August 13, 1976, contributions by all plan members were required. Accumulated employee contributions made prior to that time, plus interest, were refunded to applicable members. Maximum contribution rates were eliminated August 13, 1976.

Schedule of Funded Status and Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-a)/c)
6/30/2013	**$1,657,402,393**	**$3,583,975,559**	**$1,926,573,166**	**46.24%**	**$329,481,506**	**584.73%**

The schedules of funding progress, presented as required supplementary information (RSI) following the Notes to the Financial Statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Additional Information as of the June 30, 2013 Actuarial Valuation follows:

Valuation Date	6/30/2013
Actuarial Cost Method	Entry Age
Amortization Method	Closed, Level Percent of Payroll
Remaining Amortization Period	18 years*
Asset Valuation Method	3-year Smoothing
Actuarial Assumptions:	
Investment Rate of Return	7.75%
Projected Salary Increases	3.5% to 11%
COLAs	2.4% Compound
Price Inflation	3.5%

**single equivalent period*

NOTE 3 – DEPOSITS AND INVESTMENTS

The Board of Trustees has established policies and procedures by which funds are invested by bank custodians and investment managers. Section 104.150, RSMo, provides the authority for the board to invest MPERS funds.

Note 3 (a) - Deposit and Investment Risk Policies

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. Within the traditional asset classes (equities and fixed income), the consultant will aggregate exposures across asset classes to create measures of concentration including industries, countries and security issuer for investment staff review.

Investment Custodial Credit Risk

Custodial credit risk is an investment risk in that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of its investment or the collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System, and are held by either: a) the counterparty or b) the counterparty's trust department or agent but not in the System's name. It is the policy of the System to require that all investments be clearly marked as to ownership and, to the extent possible, shall be registered in the name of the System.

Cash Deposit Custodial Credit Risk

Cash deposit custodial credit risk is the risk that, in the event of the failure of depository financial institution, the System will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. Missouri state law requires that all public funds must be collateralized with acceptable securities having market values of at least 100% of the amount of funds on deposit (less any amount covered by FDIC insurance).

Market Risk

Market risk is the risk that the fair value of an investment will be adversely impacted due to a change in value of the underlying market. The three primary market risks prevalent in the System's investment portfolio are equity prices, interest rates, and foreign currencies. Equity risk is the risk that stock prices fall and/or the volatility in the equity market increases. Interest rate risk is the risk that fixed income securities (or any investment primarily valued on a yield basis) will drop in value due to an increase in interest rates. Currency risk is the risk that changes to foreign exchange rates will adversely impact the fair value of non-U.S. Dollar denominated assets. The System protects the portfolio against market risks by adopting a diversified asset allocation that limits the amount of exposure to each underlying market risk. Market risks are also controlled by monitoring the types, amounts, and degree of risk that each investment manager takes for their specific mandate.

Investment Credit Risk

Investment credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Unless authorized under a separate Investment Management Agreement or operating agreement, it is the policy of the System to limit fixed income managers to purchasing securities that possess a minimum credit rating of "Baa" by Moody's and "BBB" by Standard & Poor's. Issues subsequently downgraded below these ratings must be brought to the attention of the Chief Investment Officer. Where counterparty risk is present, the System's investment managers seek to control credit risk through counterparty credit evaluations and approvals, counterparty credit limits and exposure monitoring procedures.

Note 3 (b) - Cash Deposits

Cash balances include short-term securities held by the custodial bank to meet future obligations and operating balances held by the depository bank. As of June 30, 2013 and 2012, MPERS had carrying amount of deposits of ($410,524) and ($1,073,610), respectively, and a bank balance of $4 and $9, respectively. The FDIC covered the bank balances. To maximize investment income, cash is invested in overnight repurchase agreements, thus causing the negative cash amounts disclosed above. The balances in these repurchase agreements at June 30, 2013 and 2012 were $504,870 and $1,177,412, respectively. As of June 30, 2013 and 2012, no investments were held as repurchase agreements that were uninsured or unregistered, with securities held by the counterparty or by its trust department or agent but not in MPERS' name.

Note 3 (c) – Concentrations

No investments in any one organization (other than those issued or sponsored by the U.S. government and those in pooled investments) represent 5% of plan net position.

Note 3 (d) – Investments

Summary of Investments by Type at June 30

	2013		2012	
	Carrying Amount	**Fair Value**	**Carrying Amount**	**Fair Value**
Government Obligations	$ 117,944,807	$ 119,241,225	$ 122,110,534	$ 129,547,979
Corporate Bonds	30,914,319	30,906,710	38,384,346	39,478,021
Stock and Rights/Warrants	403,933,256	538,614,992	410,279,544	454,126,321
Real Estate	170,548,899	178,171,999	148,005,102	150,601,879
Mortgages & Asset-Backed Securities	119,446,304	125,215,805	116,279,532	106,471,971
Absolute Return	137,715,038	173,502,695	111,906,908	135,413,759
Tactical Fixed Income	5,353,448	7,974,681	14,586,515	22,155,767
Venture Capital & Partnerships	402,814,997	439,925,515	432,653,541	443,121,917
Short-Term Investments	38,573,512	38,573,512	53,633,283	53,635,775
Securities Lending Collateral	92,327,975	92,327,975	57,498,405	57,498,405
Total Investments	**$1,519,572,555**	1,744,455,109	**$1,505,337,710**	1,592,051,794
Reconciliation to Statement of Plan Net Position:				
Less: Repurchase Agreements		(504,870)		(1,177,412)
Less: Securities Lending Collateral		(92,327,975)		(57,498,405)
Investments per Statement of Plan Net Position		**$1,651,622,264**		**$1,533,375,977**

Note 3 (e) – Investment Interest Rate Risk

The following table summarizes the maturities of government obligations, corporate bonds, convertible corporate bonds, mortgages, asset-backed securities, and tactical fixed income which are exposed to interest rate risk.

Summary of Weighted Average Maturities

		Investment Maturities (in years) as of 6/30/2013			
Investment Type	**Fair Value**	**Less than 1**	**1 - 5**	**6 - 10**	**More than 10**
Asset-Backed Securities	$ 19,581,347	$ 0	$ 2,561,078	$ 11,135,203	$ 5,885,066
Commercial Mortgage-Backed Securities	58,212,905	0	0	1,915,877	56,297,028
Corporate Bonds	19,906,691	0	4,122,344	1,305,147	14,479,200
Government Agencies	26,312,698	0	305,728	5,419,462	20,587,508
Government Bonds	8,617,951	0	0	0	8,617,951
Government Mortgage-Backed Securities	27,534,467	0	0	8,713,240	18,821,227
Government-issued Commercial Mortgage-Backed	5,623,704	0	2,707,839	2,915,865	0
Index Linked Govt Bonds	34,185,870	0	10,806,499	15,917,097	7,462,274
Municipal/Provincial Bonds	50,124,705	1,685,708	1,240,282	5,082,848	42,115,867
Non-Govt Backed C.M.O.s	14,263,382	0	0	0	14,263,382
Total	264,363,720	**$1,685,708**	**$21,743,770**	**$52,404,739**	**$188,529,503**
Pooled Investments	19,637,070				
Grand Total	**$284,000,790**				

Note 3 (f) – Investment Credit Ratings

The following table summarizes the credit ratings of the government obligations, corporate bonds, mortgages and asset-backed securities, and tactical fixed income on the Statement of Plan Net Assets.

Summary of Credit Ratings

Investment Type	Quality Rating	6/30/2013 Fair Value	6/30/2012 Fair Value
Asset-Backed Securities	AAA	$ 3,946,068	$ 1,211,982
Asset-Backed Securities	AA	15,160,005	1,784,315
Asset-Backed Securities	A	0	409,230
Asset-Backed Securities	CC	0	242,114
Asset-Backed Securities	not rated	475,274	435,635
Commercial Mortgage-Backed Securities	AAA	3,702,411	5,068,397
Commercial Mortgage-Backed Securities	A	3,888,478	5,976,159
Commercial Mortgage-Backed Securities	BBB	9,105,964	6,050,936
Commercial Mortgage-Backed Securities	BB	361,805	2,129,918
Commercial Mortgage-Backed Securities	B	19,236,831	18,075,809
Commercial Mortgage-Backed Securities	CCC	6,668,218	813,272
Commercial Mortgage-Backed Securities	D	2,643,228	2,576,921
Commercial Mortgage-Backed Securities	not rated	12,605,970	8,926,729
Corporate Bonds	AA	3,302,911	792,531
Corporate Bonds	A	250,638	860,505
Corporate Bonds	BBB	1,905,928	2,913,716
Corporate Bonds	BB	601,269	967,174
Corporate Bonds	not rated	13,845,945	13,050,854
Government Agencies	AA	25,762,583	39,620,880
Government Agencies	A	0	15,060,180
Government Agencies	us gov guar	550,115	590,175
Government Bonds	us gov guar	8,617,951	10,371,603
Government Mortgage-Backed Securities	us gov guar	27,534,467	33,921,551
Govt issue Commercial Mortgage-Backed Securities	us gov guar	5,623,704	0
Index Linked Government Bonds	us gov guar	34,185,870	36,044,114
Municipal/Provincial Bonds	AAA	11,198,788	9,011,138
Municipal/Provincial Bonds	AA	30,517,833	10,109,656
Municipal/Provincial Bonds	A	379,762	940,024
Municipal/Provincial Bonds	not rated	8,028,322	7,800,208
Non-Government Backed C.M.O.s	AAA	427,513	6,715,580
Non-Government Backed C.M.O.s	AA	2,033,703	0
Non-Government Backed C.M.O.s	A	1,871,664	302,100
Non-Government Backed C.M.O.s	BBB	0	155,518
Non-Government Backed C.M.O.s	BB	638,396	732,819
Non-Government Backed C.M.O.s	B	134,070	0
Non-Government Backed C.M.O.s	CCC	481,830	1,458,536
Non-Government Backed C.M.O.s	CC	101,820	460,999
Non-Government Backed C.M.O.s	D	1,116,817	544,616
Non-Government Backed C.M.O.s	not rated	7,457,569	8,478,835
Pooled Investments	not rated	19,637,070	43,049,008
Total		**$284,000,790**	**$297,653,737**

Note 3 (g) – Investment Foreign Currency Risk

Exposure to Foreign Currency Risk as of June 30

Foreign Currency	Cash and Equivalents	Equities	Real Estate/ Partnerships	6/30/2013 Total	6/30/2012 Total
Australian Dollar	$ 0	$ 1,467,212	$ 0	$ 1,467,212	$ 872,961
British Pound Sterling	504	726,169	0	726,673	330,018
Canadian Dollar	6	0	0	6	432,615
Euro	46,981	1,438,524	16,587,440	18,072,945	17,096,120
Hong Kong Dollar	0	1,087,805	0	1,087,805	986,115
Japanese Yen	2,212	1,541,259	0	1,543,471	521,951
Singapore Dollar	0	1,025,322	0	1,025,322	435,943
Swiss Franc	432	0	0	432	432
Total Exposure Risk	**$50,135**	**$7,286,291**	**$16,587,440**	**$23,923,866**	**$20,676,155**

Note 3 (h) – Securities Lending

In accordance with the Board of Trustees' investment policy, MPERS participates in a securities lending program. The Northern Trust Company administers the program. There are no restrictions on the amount of securities that may be lent.

Securities that may be loaned include U.S. government and agency securities, corporate equity, and fixed income securities. Collateral may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned in exchange for collateral valued at 102% of the market value of the securities, plus any accrued interest. Non-U.S. securities are loaned in exchange for collateral valued at 105% of the market value of the securities, plus any accrued interest. On June 30, 2013 and 2012, MPERS had no credit risk exposure to borrowers, since the amount of collateral exceeded the amount of the loans.

Non-cash collateral cannot be pledged or sold unless the borrower defaults. The average term of the System's loans was approximately 68 days and 96 days, as of June 30, 2013 and June 30, 2012, respectively. Cash open collateral is invested in a short-term investment pool, which had an interest sensitivity of 43 days and 39 days, as of June 30, 2013 and June 30, 2012, respectively. Cash collateral may also be invested separately in "term loans", in which case the investments match the loan term. These loans can be terminated on demand by either lender or borrower. There were no known violations of legal or contractual provisions, or borrower or lending agent default losses. There were no dividends or coupon payments owing on the securities lent. Securities lending earnings are credited on approximately the fifteenth day of the following month.

Indemnification deals with a situation in which a client's securities would not be returned due to the insolvency of a borrower and Northern Trust would fail to live up to its contractual responsibilities relating to the lending of those securities. Northern Trust's responsibilities include performing appropriate borrower and collateral investment credit analyses and demanding adequate types and levels of collateral.

The collateral held (including both cash collateral recognized in the Statement of Plan Net Assets and non-cash collateral) was as follows at June 30:

Collateral Held

Investment Type	2013	2012
Equities	$82,736,400	$46,061,696
Government & government sponsored securities	8,787,747	10,674,816
Corporate bonds	2,690,980	961,616
	$94,215,127	$57,698,128

Note 3 (i) – Derivatives

A derivative financial instrument is an investment whose value depends on the values of one or more underlying assets, financial indexes, or commodity prices. These investments include futures contracts, options contracts, and forward foreign currency exchange. Derivative financial instruments involve credit risk and market risk, as described in Note 3 (a), in varying levels. The notional value related to these derivative instruments are generally not recorded on the financial statements; however, the change in market value of these instruments is incorporated in performance. The notional/market value of $9,013,164 and $21,061,606 for the various contracts in MPERS' portfolio as of June 30, 2013 and 2012, respectively, is recorded in investments on the Statement of Plan Net Position. The change in fair value of $9,401,640 and $21,061,606 for the years ended June 30, 2013 and 2012, respectively, is recorded in investment income on the Statement of Changes in Plan Net Position.

Investment Derivatives as of June 30, 2013

Type	Classification	Notional/ Market Value	Cost	Unrealized Gain (Loss)
Futures Contracts	Investments, at fair value	$ 9,675,765	$0	$ 9,675,765
Swap Contracts	Investments, at fair value	(662,370)	0	(662,370)
Options Contracts	Investments, at fair value	0	(388,476)	388,476
Foreign Currency Forward Contracts	Investments, at fair value	(231)	0	($231)
		$9,013,164	**($388,476)**	**$9,401,640**

NOTE 4 – RECEIVABLES

Receivables at June 30 consisted of the following:

Receivables

Type	2013	2012
Contributions-MoDOT	$ 4,472,323	$ 3,970,864
Contributions-MSHP Non-Uniformed	921,997	823,181
Contributions-MSHP Uniformed	1,677,475	1,749,387
Contributions-Retirement System	22,695	20,479
Commission Recapture	2,716	379
Securities Lending	19,017	16,221
Investment Interest & Income	3,587,888	3,763,748
Investment Sales	28,354,363	6,675,816
	$39,058,474	**$17,020,075**

NOTE 5 – CONTRIBUTIONS

MoDOT, the Highway Patrol, and MPERS make contributions to the System, as well as employees covered under the Year 2000 Plan-2011 Tier. MPERS permanent funding policy provides for actuarially determined employer contributions using the entry-age normal cost method on a closed group basis (consisting of normal cost and amortization of any unfunded accrued liabilities over a 30-year period, beginning July 1, 2006). (The objective is to reduce the period by one year each year.) A temporary accelerated policy has been adopted where the total contribution is based on entry-age normal cost plus a 15-year amortization period for unfunded retiree liabilities and a 30-year amortization period for other unfunded liabilities. Both amortization periods are closed periods starting July 1, 2010. This temporary accelerated policy was adopted by the MPERS' Board of Trustees on September 17, 2009 and will remain in effect until such time as the retiree liability becomes 100% funded or the permanent policy produces a higher contribution rate. Actuarially determined rates, expressed as percentages of annual covered payroll, provide for amounts sufficient to fund those benefits designated by state statute to be funded in advance. Actuarial assumptions used to compute contribution requirements are the same as those used to compute the pension benefit obligation. The employee contribution rate for members of the Year 2000 Plan-2011 Tier is set by statute.

Required employer contributions totaling $170,836,117 and $164,880,140 for fiscal years 2013 and 2012, respectively, represent funding of normal costs and amortization of the unfunded accrued liability. Actual contributions made were 100% of required contributions. Contribution rates as determined by the System's actuary for the years ended June 30, 2013 and 2012 are shown below. The Board established actual rates to be the same as the actuarially determined rates.

Contribution Rates

2013			2012		
MoDOT, MPERS & Civilian Patrol	Uniformed Patrol	2011 Tier Employee	MoDOT, MPERS & Civilian Patrol	Uniformed Patrol	2011 Tier Employee
50.92%	55.03%	4.00%	45.45%	58.63%	4.00%

NOTE 6 – RELATED PARTY TRANSACTIONS

MoDOT rented office space from MPERS. The contract began in June 2008 and was effective through December 2011. This amounted to other income of $13,760 during FY12. As of January 1, 2012, MoDOT no longer rents the space.

NOTE 7 – PERSONAL SERVICES AND RETIREMENT PLAN

MPERS employed 15 full-time employees on June 30, 2013 and 14 on June 30, 2012. Six former MPERS employees have retired. Full-time employees are also members of the System. For these employees, MPERS accrued 50.92% of payroll during FY13, amounting to $562,535, which was equal to the required contribution.

The net obligations for FY13 and the two preceding years are shown below. These amounts are recorded as both a contribution and administrative expense. Information regarding the retirement plans can be found in Notes 2 and 5.

Net Obligations

Year Ended	Annual Required Contribution		Percent	Net
June 30	Percent	Dollars	Contributed	Obligation
2011	39.46%(1)	365,073	100%	$0
2012(2)	45.45%(1)	435,074	100%	$0
2013	50.92%(1)	562,535	100%	$0

(1) The Annual Required Contribution rate is equal to the Actuarially Required Contribution rate.
(2) New assumptions and/or methods adopted.

NOTE 8 – OTHER POST-EMPLOYMENT BENEFITS (OPEB)

In addition to the retirement benefits described previously, MPERS provides a portion of health care insurance through the MoDOT and MSHP Medical and Life Insurance Plan (Insurance Plan) in accordance with Missouri State statutes. For the purpose of reporting OPEB costs and obligations in accordance with Governmental Accounting Standards Board (GASB) Statement 45, the Insurance Plan is considered an agent multiple-employer defined benefit plan administered by MoDOT. Medical insurance benefits are established by the Insurance Plan's Board of Trustees and are approved by the Missouri Highways and Transportation Commission. Benefits include general inpatient and outpatient medical services; mental, nervous and substance abuse care; and prescriptions. Eligible members are employees who retired from the System with a minimum of 5 years of service and who participate in the Insurance Plan. MoDOT issues a publicly available financial report that includes financial statements and required supplementary information for the Insurance Plan. Requests for this report should be addressed to MoDOT, Controller's Division, P.O. Box 270, Jefferson City, MO 65102.

Employer and member contributions are established by the Insurance Plan's Board of Trustees and are approved by the Missouri Highways and Transportation Commission. Premiums vary by coverage categories, which include retirees, certain disabled employees, spouses, certain dependents, and survivors of deceased employees and retirees. Employer and member required contribution rates average approximately 52% and 48%, respectively. The Insurance Plan is financed on a pay-as-you-go basis and is an internal service fund of MoDOT.

MoDOT's actuarial valuations for the Insurance Plan are performed biennially. The July 1, 2011 actuarial valuation was used for the FY12 and FY13 financial statements. For these periods, the annual required contribution (ARC) is equal to the annual OPEB cost. MPERS contributed $26,739 in both FY12 and FY13 (22.1% and 21.82% of the ARC respectively), including implicit rate subsidies. Although funding is not related to payroll amounts, an equivalent Annual Required Contribution (ARC) rate would be 11.51% and 12.75% of annual covered payroll of $1,052,979 and $960,456 for FY13 and FY12, respectively. MPERS' share of the net OPEB obligation was $554,370 and $459,906 at June 30, 2013 and 2012, respectively. MPERS' share of the changes in the Insurance Plan's net OPEB obligation is shown below.

OPEB Cost and Obligation for the Year Ended June 30,

Type	2013	2012
Normal Cost	$ 60,443	$ 60,443
Amortization Payment	61,594	61,594
Interest	26,188	21,878
Adjustment to ARC	(27,022)	(21,394)
Annual OPEB Cost	121,203	122,521
Contributions	(26,739)	(26,739)
Increase in Net OPEB Obligation	94,464	95,782
Net OPEB Obligation - Beginning of Year	459,906	364,124
Net OPEB Obligation - End of Year	$554,370	$459,906

Because the Insurance Plan is an internal service fund of MoDOT, the Insurance Plan's assets have not been set aside. Because of this, there is no actuarial value of assets, so the entire actuarial accrued liability (AAL) is unfunded. Based on an actuarial report dated July 1, 2011, MPERS' portion of the AAL is $1,048,333, which is equal to MPERS' portion of the unfunded actuarial accrued liability (UAAL), as shown below.

Actuarial Accrued Liability

Actuarial Accrued Liability	$1,048,333
Actuarial Value of Assets	0
Unfunded Actuarial Accrued Liability (UAAL)	$1,048,333
Funded Ratio (Actuarial Value of Plan Assets/AAL)	0%
Covered Payroll	$1,052,979
UAAL as a Percentage of Covered Payroll	100%

Actuarial valuations of an ongoing plan reflect long-term perspective and involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. These calculations are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. A schedule of funding progress is presented as required supplementary information following the notes to the financial statements. As allowed by the GASB, this reporting requirement is being implemented prospectively. Data is not available for prior years. Over time, the schedule of funding progress will present trend information about whether the actuarial value of plan assets is increasing or decreasing relative to the AAL for benefits.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employers and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. The actuarial methods and assumptions utilized in the valuation are shown on the following table.

Actuarial Methods and Assumptions

Actuarial Cost Method	Projected Unit Credit
UAAL Amortization Method	Level Dollar Amount
UAAL Amortization Period	30 Years
UAAL Amortization Approach	Open
Investment Return (Discount) Rate	4.5%
Healthcare Cost Trend Rate	8%, Decreasing to 5% After 2017
Admin Expense Trend (Inflation) Rate	4.0%

NOTE 9 – CAPITAL ASSETS

Summary of Changes in Capital Assets

	6/30/2012 Balance	Additions	Deletions/ Retirements	6/30/2013 Balance
Land	$ 84,000	$ 0	$ 0	$ 84,000
Buildings	581,619	0	0	581,619
Furniture, Equipment and Software	3,423,799	85,534	(30,280)	3,479,053
Less: Accumulated Depreciation	(1,174,573)	(373,176)	30,280	(1,517,469)
Total	**$2,914,845**	**($287,642)**	**$ 0**	**$2,627,203**

	6/30/2011 Balance	Additions	Deletions/ Retirements	6/30/2012 Balance
Land	$ 84,000	$ 0	$ 0	$ 84,000
Buildings	581,619	0	0	581,619
Furniture, Equipment and Software	3,414,235	9,564	0	3,423,799
Less: Accumulated Depreciation	(792,565)	(382,008)	0	(1,174,573)
Total	**$3,287,289**	**($372,444)**	**$ 0**	**$2,914,845**

NOTE 10 – OPERATING LEASES

As of June 30, 2013, MPERS is committed to three equipment and services related leases. The leases extend through August 2018. Expenditures for the years ended June 30, 2013 and 2012 amounted to $11,284 and $8,604, respectively.

Future Minimum Lease Payments

Year Ending June 30	
2014	$11,802
2015	8,736
2016	8,736
2017	8,736
2018	6,044
2019	110
Total minimum lease payments	**$44,164**

NOTE 11 – RISK MANAGEMENT

MPERS is exposed to various risks of loss related to natural disasters, asset theft or damage, errors and omissions, torts, and employee injuries.

MPERS has purchased commercial insurance related to capital asset loss and damage. Ancillary coverage provided through the property policy includes coverage for accounts receivable, loss of money and securities, employee dishonesty, and forgery and alterations. MPERS carries a $2 million umbrella liability policy. MPERS has coverage through Missouri Highway and Transportation Commission's Self-Insurance Fund related to workers' compensation. MPERS' has also purchased an executive risk insurance package that includes directors and officers liability ($1 million aggregate coverage), employment practices liability ($1 million aggregate coverage) and fiduciary liability coverage ($5 million aggregate coverage). These coverages are inclusive of legal defense costs and each policy carries a $25,000 deductible. The State's Legal Expense Fund covers all state employees and officers, and MPERS has purchased surety bonds for the executive director and staff. Settlements have not exceeded coverages for each of the past three fiscal years.

NOTE 12 – COMMITMENTS

As of June 30, 2013, MPERS has $176,885,890 unfunded commitments in alternative investments.

Required Supplementary Information

Schedule of Funding Progress

Year Ended June 30	Actuarial Asset Value	Accrued Liability – Entry Age	Unfunded Accrued Liability (UAAL)	Funded Ratio	Actuarial Covered Payroll(1)	UAAL as a Percentage of Covered Payroll
2008	$1,783,902,280	$3,019,633,781	$1,235,731,501	59.08%	$375,984,141	328.67
2009	1,471,496,660	3,113,393,645	1,641,896,985	47.26%	379,542,506	432.60
2010(2)	1,375,844,573	3,258,866,925	1,883,022,352	42.22%	378,063,006	498.07
2011	1,427,290,718	3,297,589,869	1,870,299,151	43.28%	362,654,376	515.72
2012(2)	1,531,033,613	3,306,278,671	1,775,245,058	46.31%	341,637,559	519.63
2013(2)	1,657,402,393	3,583,975,559	1,926,573,166	46.24%	329,481,506	584.73

(1) Values are estimated from contribution rate and amount.
(2) New assumptions and/or methods adopted.

Schedule of Employer Contributions

Year Ended June 30	Uniformed Patrol			MoDOT, Civilian Patrol & MPERS		
	Annual Required Contribution		Percent Contributed	Annual Required Contribution		Percent Contributed
	Percent	Dollars		Percent	Dollars	
2008	42.61	$29,147,429	100	31.01	$95,368,363	100
2009	40.22	27,298,132	100	30.72	95,759,843	100
2010(1)	39.95	26,936,683	100	31.40	97,540,023	100
2011	49.53	33,688,925	100	39.46	116,263,825	100
2012(1)	58.63	42,750,061	100	45.45	122,134,406	100
2013(1)	55.03	41,026,592	100	50.92	129,809,525	100

(1) New assumptions and/or methods adopted.

Notes to the Schedules of Trend Information

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

Valuation Date .... June 30, 2013
Actuarial Cost Method .... Entry Age
Amortized Method .... Level Percent of Payroll
Remaining Amortization Period .... 18 Years (single equivalent period)
Amortization Approach .... Closed
Asset Valuation Method .... 3-Year Smoothing
Actuarial Assumptions:
  Investment Rate of Return 7.75%
  Projected Salary Increase .... 3.5% to 11%
  Cost-of-Living Adjustments .... 2.4% Compound
  Includes Wage Inflation at 3.5%

Other Post-Employment Benefit (OPEB) Plan Schedule of Funding Progress for MoDOT and MSHP Medical and Life Insurance Plan

Year Ended June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)
2008	$0	$1,178,303	$1,178,303	0%
2010(1)	0	1,036,681	1,036,681	0%
2012	0	1,048,333	1,048,333	0%

(1) New assumptions adopted

Actuarial valuations are performed biennially. The July 1, 2011 actuarial valuation was used for FY12 and FY13 financial statements, the July 1, 2009 actuarial valuation was used for FY10 and FY11 financial statements, and the July 1, 2007 actuarial valuation was used for FY08 and FY09 financial statements. As allowed by the GASB, this reporting requirement is being implemented prospectively, as prior years' data is not available.

Because this plan is an internal service fund of MoDOT, assets have not been set aside. Therefore, there is no actuarial value of assets. This results in a calculated funded ratio of zero percent.

Notes To The Schedule Of Trend Information

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

Valuation Date .... July 1, 2011
Actuarial Cost Method .... Projected Unit Credit
UAAL Amortization Method .... Level Dollar Amount
UAAL Amortization Period .... 30 Years
UAAL Amortization Approach .... Open
Investment Return (discount) Rate 4.5%
Healthcare Cost Trend Rate .... 8.0%, Decreasing to 5% after 2017
Admin Expense Trend (Inflation) Rate 4.0%

Schedules Of Administrative Expenses

For the Years Ended June 30, 2013 and 2012

	2013	2012
Personal Services:		
Salary Expense	$ 1,083,168	$ 1,022,080
Employee Benefit Expense	930,439	799,599
Total Personal Services	**2,013,607**	**1,821,679**
Professional Services:		
Actuarial Services	86,534	113,141
Actuarial Audit Services	0	50,000
Audit Expense	32,000	30,900
Disability Program	11,552	13,120
Consultant Fees	105,354	56,401
Fiduciary Insurance	0	112,280
Other	22,469	31,744
Total Professional Services	**257,909**	**407,586**
Miscellaneous:		
Depreciation	373,177	382,008
Meetings/Travel/Education	88,283	85,752
Equipment/Supplies	80,456	38,429
Printing/Postage	81,229	80,238
Bank Service Charge	8,479	8,116
Building Expenses	39,009	43,525
Other	55,076	67,636
Total Miscellaneous	**725,709**	**705,704**
Total Administrative Expenses	**$2,997,225**	**$2,934,969**

Schedules Of Investment Expenses

For the Years Ended June 30, 2013 and 2012

	2013	2012
Investment Income Expenses:		
Management and Performance Fees		
Aberdeen Asset Management	$ 18,414	$ 73,610
ABRY Partners	293,239	334,037
Acadian Asset Management	828,701	684,292
AEW	210,394	252,917
Albourne	240,000	240,000
American Infrastructure MLP	275,532	204,949
Anchorage Capital	752,197	334,769
Apollo Real Estate	299,182	298,694
AQR Capital Management	274,202	288,319
Artio (formerly Julius Baer)	43,943	306,437
Audax Group	51,010	99,096
Barclays Global Investors	196,443	195,485
Black River	0	70,482
Blue Trend	370,851	0
Brevan Howard	822,236	725,868
Bridgewater Associates	547,970	1,221,976
CBRE	1,174,270	361,090
Cevian	573,370	241,340
Clifton	125,713	85,794
Colony Capital	25,000	52,450
CarVal Investors (CVI)	303,326	408,240
Deephaven Capital Management	1,680	3,574
EIF Management	151,941	127,507
Energy & Mineral Group Midstream Resource	257,255	0
Enhanced Investment Technologies (INTECH)	379,428	327,405
Golub	63,407	62,674
Grove Street Advisors	1,500,000	2,250,000
GSO	912,066	71,482
ING Clarion	613,605	557,535
Luxor	1,167,106	158,253
Natural Gas Partners	296,368	351,021
Och-Ziff Real Estate	159,862	128,876
Ospraie	1,664,932	528,048
Paulson and Co.	0	65,358
PFM	101,113	135,769
Pinnacle Associates	343,767	432,231
Principal Global Investors	1,001,104	854,471
RMK Timberland	119,973	119,973
Rothschild Asset Management	249,593	82,235
Silchester International Investors	580,572	530,853
Stark Investments (Shepard)	16,026	70,704
Stellium	711,020	604,864
Structured Portfolio Management (SPM)	448,390	568,436
Taconic	723,425	303,494
Tortoise	519,153	386,907
Urdang	65,990	140,452
ValueAct	1,039,985	177,770
Vectis	187,500	187,500
Walker Smith	33,078	141,988
Western Asset Management Company	132,612	282,419
Total Management and Performance Fees	**20,866,944**	**16,131,644**
Investment Custodial Fee	72,579	101,295
Performance Management	102,846	95,708
General Consultant (monitoring) Fee	312,000	312,000
Other Investment Expenses	127,429	65,757
Total Investment Income Expenses	**$21,481,798**	**$16,706,404**
Securities Lending Expenses:		
Borrower Rebates (Refunds)	$ (27,457)	$ (126,553)
Bank Fees	74,954	89,901
Total Securities Lending Expenses (Income)	**$ 47,497**	**$ (36,652)**

Schedules Of Consultant And Professional Expenses

For the Years Ended June 30, 2013 and 2012

	2013	2012
Actuarial Services	$ 86,534	$ 113,141
Actuarial Audit Services	0	50,000
Audit Services	32,000	30,900
Disability Administrative Services	11,552	13,120
Legislative Consultant	30,055	26,401
Board Governance Consultant	29,336	0
Customer Service and Benefit Delivery	10,700	10,000
Insurance Consultant	6,000	6,000
Other Consultant Fees	29,262	14,000
Fiduciary Insurance	0	112,280
Other	22,470	31,744
Total Consultant and Professional Expenses	**$257,909**	**$407,586**

Notes

What would you do without them?

Missouri residents, and those visiting our state, depend on quality roads, signs for guidance, clean and safe rest areas, quick response in the event of an emergency, and safety enforcement on our highways and waterways.

Randy - 32 years

Travis - 5 years

Michael - 4 years

Tamara - 7 years

Scott Simon
Executive Director

MoDOT & Patrol
Employees' Retirement System

Pam Henry
Assistant Executive Director

October 7, 2013

To the Members of the MoDOT & Patrol Employees' Retirement System:

It is my pleasure to provide you with the investment section of this year's Comprehensive Annual Financial Report. This section is a supplement to the comprehensive report and provides an overview of developments and performance within the investment portfolio.

Fiscal year 2013 resembled a game of tug of war, fought between the resurging global economy and a host of macroeconomic concerns. The year was dominated by headlines related to the European debt crisis, the U.S. fiscal cliff, reduced economic growth in China and the tapering of support from the Fed's quantitative easing program. Politics also played a key role in this year's battle, as President Obama was re-elected for a second term while the Republican House and Democratic Senate became even more entrenched on spending and tax issues. Fortunately, with the assistance from central banks around the world, the global economy continued to recover from the lows set during the financial crisis. The U.S. housing recovery, along with strong corporate balance sheets and the surge of activity from the U.S. energy renaissance helped move the economy forward despite all the economic concerns.

When the dust settled from the contest, MPERS' portfolio posted a solid 13.42% return in fiscal year 2013, which outperformed the policy benchmark return by 3.37%. Every major asset class delivered positive returns, led by the global equity portfolio with a 22.3% return and the real estate portfolio with a 17.8% return. The private equity, hedge fund, and fixed income portfolios generated returns of 10.58%, 8.71%, and 5.54%, respectively.

While the global economy ultimately won this year's battle, the war is far from over. After strong gains in recent years, equity and credit valuations are no longer as cheap as they once were. The global economy also faces a new set of political and economic hurdles to overcome, including the eventual tapering of the Fed's quantitative easing program. The global economy is growing, but at a very slow pace. Next year's battle will likely focus on whether the economy is strong enough to continue growing without the assistance of government support and stimulus. This year, the housing recovery and U.S. energy renaissance were instrumental in moving the economy forward. Additional sources of growth will need to be found in order to keep the economy growing in the future, and those sources have yet to be identified.

While the uncertainty of future growth brings additional risk to the investment portfolio, managing that risk is what enables the fund to earn an attractive return and provide the benefit payments promised to you, the members of the system. Our goal in managing the investment portfolio is not to avoid risk altogether, but rather to manage risk in the best way possible to ensure your benefit payments are secure. You can rest assured that MPERS' staff, with the help from our highly regarded investment consultants and external resources, is doing everything possible to protect your benefit against the uncertainty in the markets.

Sincerely,

Larry Krummen, CFA

Office Location: 1913 William St., Jefferson City, MO 65109 • **Mailing Address:** Post Office Box 1930, Jefferson City, MO 65102-1930
Telephone Number: (573) 298-6080 • **Toll Free:** 1-800-270-1271 • **Admin. Fax:** (573) 526-5895 • **Benefits Fax:** (573) 522-6111
Website: www.mpers.org • **E-Mail:** mpers@mpers.org

NEPC, LLC

KEVIN M. LEONARD
PARTNER

October 1, 2013

The Board of Trustees
MoDOT & Patrol Employees' Retirement System
PO Box 1930
Jefferson City, MO 65102

Dear Board Members:

In our role as the general investment consultant, we assist the Board in several manners: determining and executing the overall asset allocation strategy of the Plan; advising on the investment policy of the Plan; facilitating investment manager searches (both traditional and alternative asset classes); conducting custodial service searches; providing ongoing performance evaluation for each individual investment manager and the overall investment portfolio; as well as providing pertinent education to the Board.

MPERS' objective is to provide service, disability, death and vested retirement benefits to members and their beneficiaries. To ensure a solid foundation for the future of the System, MPERS has developed an investment program designed to achieve the actuarially assumed rate of return over the long term, while prudently managing the risk of the portfolio. The pension fund is required to satisfy the need to pay accumulated/earned retirement benefits today, while at the same time be prepared for "uncertain" future benefits. This balancing of short-term versus long-term needs is a key tenant in the overall construction of the portfolio. To facilitate this balance, the Board has adopted a diversified asset allocation structure. Our goal is to diversify the System's assets within the traditional and non-traditional asset classes to reduce volatility, achieve above market returns, and to better protect the portfolio against difficult market conditions.

During Fiscal Year 2013, the Board continued to work diligently on the expansion of the alternative investment program, which will further assist in the diversification of the portfolio. New strategies/managers were hired within the opportunistic debt, private equity, real assets, real estate, and hedge fund portfolios. Also, during the second half of the fiscal year, NEPC worked with staff on a comprehensive review of the portfolio's global equity composite. This review is expected to result in several changes within the global equity portfolio.

As the allocation strategy evolves year after year, diversification and risk mitigation will continue to be the pillars of the asset allocation structure.

Fiscal Year 2013 Market Review

The 2013 Fiscal Year posted surprisingly strong returns for investors seeking risk even amidst a myriad of macroeconomic concerns. The year ending June 30th was largely dominated by headline risks related to the European debt crisis, the fiscal cliff, reports of slowed economic growth in China and emerging markets and the eventual winding down of the Fed's quantitative easing program.

Fiscal Year 2013 began with global equity markets posting strong returns as a result of collective monetary easing by central banks in both the U.S. and Europe. Markets turned in the

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BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

fourth quarter of 2012, as U.S. equities posted mixed results amid uncertainties around the outcome of the presidential election and the fiscal cliff. International equity markets, however, recorded gains as a result of positive news flow within the Euro zone and stronger economic data from China. The stock market posted hefty gains in the first quarter of calendar year 2013. The U.S. economy continued to recover with improvements in residential real estate, consumer sentiment, and an increase in employment opportunities; while international equities lagged behind their domestic counterparts, fueled by anticipated policy changes in Japan and continued financial concerns in Europe. Fiscal Year 2013 concluded with a spike in volatility as the Federal Reserve Chairman, Ben Bernanke indicated the central bank may begin tapering its monetary stimulus earlier than expected. Treasury yields spiked on expectations of Fed tapering and continued to rise through June. As a result of the sharp rise in rates, investors saw long duration fixed income assets struggle. In reaction, investors saw a sell off in equities, specifically in emerging markets which were driven lower by political unrest in Egypt and higher yields in the U.S. market.

For the fiscal-year-ending June 30, 2013, the MPERS Total Fund returned 13.42% on a net-of-fees basis. For the trailing three-year period ending June 30, 2013 the MPERS Total Fund returned 12.37% on a net-of-fees basis. For the trailing ten-year period ending June 30, 2013 the MPERS Total Fund returned 7.38% on a net-of-fees basis. For the fiscal-year-ending June 30, 2013 relative to peer group comparison (InvestorForce Public Fund Universe), the 13.42% return ranked MPERS in the 18th percentile (1% being the highest, 100% being the lowest), outpacing 82% of other public funds within the universe. For the trailing three-year period ending June 30, 2013 the return of 12.37% ranked MPERS in the 9th percentile, outpacing 91% of other public funds within the universe. For the trailing ten-year period ending June 30, 2013 the return of 7.4% ranked MPERS in the 17th percentile, outpacing 83% of other public funds within the universe. For the fiscal year, total fund performance (relative to peer group) was driven by strong absolute and relative returns across the majority of the composite portfolios. The global equity and fixed income portfolios were the key contributors for the year. The global equity portfolio returned 22.34% versus its benchmark return of 16.57%. The fixed income portfolio returned 5.54% versus its benchmark return of 0.24%. Within the alternatives portfolio, the real estate portfolio returned 17.79%, the private equity portfolio returned 10.59%, and the hedge fund portfolio returned 8.71%. Relative to its benchmark, the real estate portfolio did the best, outperforming its benchmark by 700 basis points, while the hedge fund portfolio outperformed by 144 basis points. The private equity portfolio was the one composite that lagged, underperforming its benchmark by 675 basis points. Underperformance within the private equity portfolio can be attributed to selective manager performance.

NEPC, LLC appreciates the opportunity to serve as your consultant. It is a pleasure to work with MPERS and we look forward to developing our relationship for the benefit of the Board, staff, and most importantly, the members of the System.

Sincerely,

Kevin M. Leonard
Partner

Investment Activity Overview

Summary of Investment Policy

The primary objective of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS) is to provide active and retired employees with the retirement benefits provided under Missouri law. The investment portfolio is constructed to generate a total return that, when added to employer contributions, is sufficient to meet these benefit obligations. Following prudent standards for preservation of capital, the goal is to achieve the highest possible rate of return consistent with the plan's tolerance for risk as determined by the Board of Trustees in its role as fiduciary.

Experience Study and Subsequent Change in Actuarial Return Assumption

MPERS completed an experience study in fiscal year 2013 to compare the actuarial assumptions used in valuing MPERS' liabilities relative to the plan's actual experiences over the past five years. The study reviews both the demographic assumptions of MPERS' membership base (i.e., rate of new hires, retirements, deaths, etc.) as well as the assumed rate of return for the investment portfolio.

Given the market rallies in recent years (which reduces the attractiveness of future investments from a valuation perspective) and the current low interest rate environment, our forward-looking investment returns are lower today relative to the past. Based on advice from outside consultants, the Board adopted a change to lower the return assumption from 8.25% to 7.75%, while lowering the inflation assumption from 3.25% to 3.0% (resulting in a real rate of return assumption of 4.75%). While the change does not impact MPERS' targeted asset allocation, it represents a more realistic return goal for the portfolio over the coming cycle and is consistent with the projections provided by NEPC (MPERS' investment consultant). The decision will significantly increase contribution rates for both the Missouri Department of Transportation and Missouri State Highway Patrol, demonstrating the Board's commitment to improving MPERS' funded status.

Market Value of Investments

As of June 30, 2013, MPERS' investment portfolio had a total market value of $1.67 billion, representing an increase of $146.8 million from fiscal year-end 2012. Over the course of the year, $54.5 million was transferred out of the fund to meet benefit payments and other obligations. When viewed together, the net increase to the portfolio from investment activity equated to $201.3 million.

Investment Performance

Fiscal year 2013 was an excellent year for MPERS' investment portfolio, both from an absolute and relative return perspective. The fund generated a 13.42% return for the year, net of all management fees and based on time-weighted rates of return and market valuations. Every major asset class delivered positive returns for the year, led by the global equity portfolio with a 22.3% return and the real estate portfolio with a 17.80% return. The private equity, hedge fund, and fixed income portfolio generated returns of 10.58%, 8.71%, and 5.54%, respectively. Additional information on the performance across the major asset classes (and their respective benchmarks) is listed below.

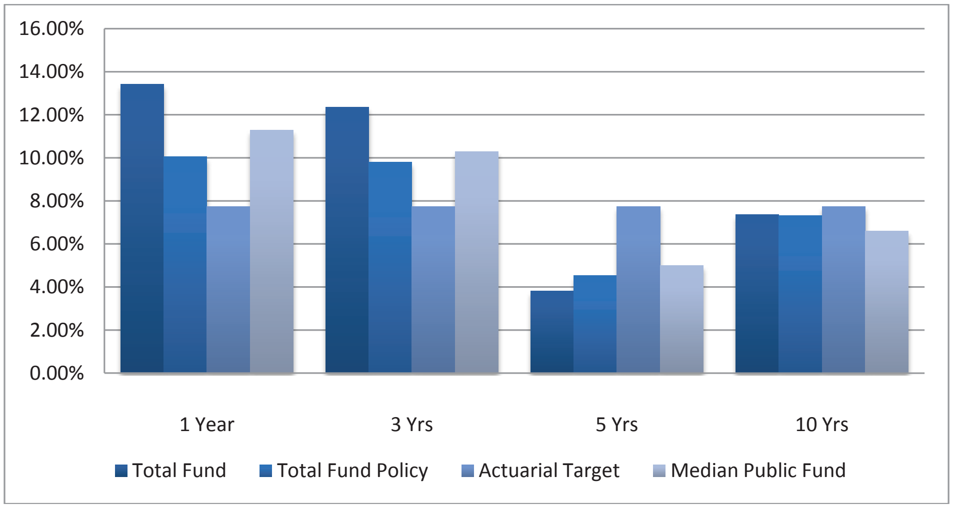
Investment Performance (Including Benchmarks)	**1-Year**	**3-Year**	**5-Year**	**10-Year**
Total Fund	**13.42%**	**12.36%**	**3.82%**	**7.38%**
Policy Benchmark	10.05	9.8	4.53	7.33
Global Equity	**22.32**	**15.3**	**3.36**	**8.53**
MSCI ACWI	16.57	12.36	2.30	7.59
Private Equity	**10.58**	**11.79**	**2.92**	**n/a**
S&P 500 + 300 bps	17.34	16.03	7.80	n/a
Fixed Income	**5.54**	**7.77**	**6.25**	**5.31**
Barclays US Universal	0.24	4.09	5.53	4.84
Real Estate	**17.80**	**16.36**	**-0.76**	**n/a**
NFI-ODCE	10.79	13.79	-1.53	n/a
Real Assets*	**n/a**	**n/a**	**n/a**	**n/a**
CPI + 400 bps	n/a	n/a	n/a	n/a
Hedge Funds	**8.71**	**6.33**	**3.33**	**n/a**
HFRI Fund of Funds	7.35	3.03	-0.60	n/a

* Initiated 10/1/2012

Investment Activity Overview

When evaluating performance, the Board of Trustees looks at three primary performance objectives: a) to meet or exceed the actuarial assumed rate of return of 7.75%, b) to outperform a policy benchmark that represents the return that could be achieved by investing passively in the broad markets in the same percentages to MPERS' target asset allocation, and c) to rank at or above the median public fund investment return.

Historical returns versus the three primary performance goals are listed graphically below:



MPERS' one and three year performance remains safely above the actuarial target, while the five and ten year results remain below the 7.75% target. As of June 30, 2013, the portfolio ranked in the top 20% of the public fund peer universe for the one, three, and ten year periods. The fund continues to perform well relative to policy benchmarks over the one, three, and ten year periods as well. The underperformance in the five year period reflects the fund's poor results during the financial crisis (fiscal year 2009).

Asset Allocation Overview

There was one minor revision to MPERS' asset allocation targets in fiscal year 2013. Effective October 1, 2012, MPERS' Board of Trustees approved a change to break out the previous real assets portfolio into distinct real assets and real estate portfolios. The real assets portfolio has a new target allocation of 5% and real estate now has a separate target allocation of 10%. The real assets allocation was funded by transferring five energy investments (all of which were separate funds) that were previously allocated within the private equity portfolio. The timber portfolio remained in the real assets category. All core real estate, non-core real estate and REITS were moved to the real estate asset class. Overall the restructuring provides better transparency and improved modeling capabilities across MPERS' alternative assets portfolio.

As of June 30, 2013, all of the sub-asset class allocations were within the acceptable ranges established by MPERS' investment policy. Any deviance relative to the targeted allocation represents a conscious decision based on our views of the market. The chart below lists the target and actual asset allocation as of June 30, 2013, followed by commentary on each underlying asset class.

Asset Class	Ending FY12 Allocation	FY13 Target Allocation	Ending FY13 Allocation
Global Equity	**29.5%**	**30%**	**32.3%**
Private Equity	**19.3%**	**15%**	**17.4%**
Fixed Income	**23.2%**	**25%**	**20.5%**
Real Assets	**16.9%**	**5%**	**4.3%**
Real Estate	**0%**	**10%**	**13.9%**
Hedge Funds	**10.8%**	**15%**	**10.4%**
Cash	**0.3%**	**0%**	**1.2%**

** Including Timber, which was rolled into the overall Real Estate Allocation on 4/1/07.*

Investment Activity Overview

Global Equity:
We began the year with a 29.5% allocation to global equities, slightly below the targeted allocation of 30%. As the economy showed signs of improvement, we began to overweight the equity portfolio relative to policy targets – a move that served MPERS well throughout the fiscal year. The global equity portfolio generated a 22.3% return during fiscal year 2013, which was the best performing asset class in the portfolio. Relative performance was also strong as MPERS' managers collectively outperformed the equity benchmark return of 16.6% (which represents 5.75% of excess return).

MPERS closed the year with a 32.3% allocation to global equities, and we expect to maintain a modest overweight to the asset class throughout most of calendar year 2013.

Fixed Income:
We began fiscal year 2013 with a 23.1% allocation to fixed income relative to the 25% target. We maintained this underweight position throughout the fiscal year, ending with a 20.5% allocation. With interest rates at or near all time lows, we continue to favor certain income-oriented real estate strategies versus traditional fixed income strategies.

The fixed income portfolio performed very well relative the benchmark throughout the year, generating a 5.4% return versus the index return of 0.24% (representing excess return of 5.16%). Nearly all of this outperformance is attributed to MPERS' opportunistic debt portfolio, which generated a 24.8% return for the year.

Hedge Fund:
MPERS' remained considerably underweight the targeted hedge fund allocation of 15% throughout the year, starting the year with an 10.8% allocation and ending with a 10.4% allocation. We continue to favor opportunities in the real estate and private equity portfolios relative to the hedge fund sector, and remain conscious of the overall policy limit of 50% to alternatives.

We made a couple of minor changes to the manager lineup throughout the year, adding a commodity trading advisor (CTA) strategy and a new mortgage arbitrage manager. The hires were offset by liquidating investments from underperforming managers. Overall, the portfolio generated a return of 8.7% during the year, which outperformed the benchmark return of 7.3% (representing 1.4% excess return).

Real Assets:
Effective October 1, 2012, MPERS' Board of Trustees approved a change to break out the previous real assets portfolio into distinct real assets and real estate portfolios. The real assets portfolio has a new target allocation of 5%, and was funded by transferring five energy investments (all of which were separate funds) that were previously allocated within the private equity portfolio. The timber portfolio also remains in the real assets category. The restructuring improves the transparency of MPERS' alternatives portfolio by breaking out and separately modeling the real assets exposure instead of including it within the broader private equity portfolio. We ended fiscal year 2013 with a 4.3% allocation to real assets.

Real Estate:
As a result of breaking out the real assets portfolio, MPERS now has a dedicated allocation to real estate with a new target of 10% of assets. To fund the strategy, all core and non-core real estate strategies (all private fund assets) and the publicly traded REIT portfolio were moved from the real assets category. As part of the restructuring, MPERS also changed the underlying benchmark of the real estate portfolio to the NFI-ODCE (or ODCE), short for NCREIF Fund Index - Open End Diversified Core Equity. ODCE is an index of investment returns from 31 real estate funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. MPERS portfolio considerably outperformed the broad ODCE benchmark during fiscal year 2013, generating 17.8% return versus a benchmark return of 10.8%.

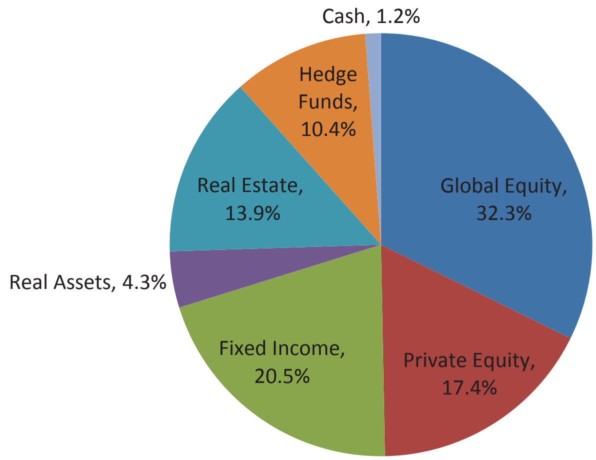
We continue to overweight real estate strategies relative to policy targets on the view that core real estate will outperform traditional fixed income markets over the coming cycle. MPERS ended fiscal year 2013 with a 13.9% allocation to real estate.

Private Equity:
MPERS' private equity allocation decreased from 19.3% of assets to 17.4% of assets during the course of fiscal year 2013, versus the target of 15%. The majority of the movement is a result of moving five energy investments (funds) to fund the new real assets portfolio (discussed above). The portfolio generated a respectable 10.58% return for the year, but once again failed to keep up with the "public equity plus" benchmark (S&P 500 + 3%). This benchmark has been difficult to outperform given the strength of public equity markets and the relative immaturity of MPERS' private equity portfolio.

Investment Summary

Looking Forward

The global economy was able to push forward in fiscal year 2013 despite a host of political and economic hurdles, but once again faces a new set of hurdles going forward. After several years of strong gains, equity and credit valuations are no longer as cheap as they once were. Fiscal year 2014 will certainly bring another set of macroeconomic concerns, led by the eventual winding down of the Fed's quantitative easing program. The global economy is growing, but at a very slow pace. Next year's battle will likely be focused on whether the economy is strong enough to continue growing without the assistance of government support and stimulus.



Amounts Reported By Management-Type Allocation

	06/30/2012				06/30/2013		
	Book Value	Market Value	Acquisitions	Dispositions	Book Value	Market Value	% of Market
Global Equity	406,922,929	450,436,719	100,418,063	(99,498,736)	407,842,256	541,138,362	32.3%
Private Equity	289,429,182	294,861,218	79,658,972	(77,329,040)	291,759,114	291,699,857	17.4%
Fixed Income	319,522,036	353,816,568	114,187,321	(126,334,320)	307,375,037	343,956,408	20.5%
Real Estate	283,074,844	258,989,106	28,098,168	(79,408,941)	231,764,071	232,132,660	13.9%
Real Assets	0	0	74,879,062	(17,582,022)	57,297,040	71,367,579	4.3%
Hedge Funds	142,051,718	164,647,782	22,021,992	(26,617,968)	137,455,742	173,892,029	10.4%
Cash	5,313,865	5,313,839	315,893,523	(300,472,828)	20,734,560	20,734,567	1.2%
Total Investments	1,446,314,574	1,528,065,232	735,157,101	(727,243,855)	1,454,227,820	1,674,921,462	100.0%

Reconciliation to Statement of Plan Net Assets:

Less Accrued Investment Interest and Income	(3,587,888)
Less Investment Sales Receivable	(28,354,363)
Plus Investment Purchases Payable	3,870,196
Currency Adjustment	4,772,857
	1,651,622,264

Largest Investment Holdings

Largest Equity Securities

(Non-Commingled Funds)

Security	Market Value	% of Total
EXXON MOBIL CORP COM	$4,281,506	0.796%
ACCESS MIDSTREAM PARTNERS L P UNIT	4,102,439	0.762%
APPLE INC COM STK	2,772,560	0.515%
WILLIAMS CO INC COM	2,520,808	0.468%
SPECTRA ENERGY CORP COM STK	2,519,715	0.468%
AT&T INC COM	2,446,565	0.455%
REGENERON PHARMACEUTICALS INC COM	2,343,250	0.435%
PRECISION CASTPARTS CORP COM	2,034,090	0.378%
CHEVRON CORP COM	1,965,391	0.365%
INTERNATIONAL BUSINESS MACHS CORP COM	1,911,100	0.355%

Largest Fixed Income Securities

(Non-Commingled Funds)

Par Value	Security	Market Value
$14,000,000	USA TREASURY NTS 1.125% TIPS 15/1/21 USD1000 01-15-2021	$15,917,097
18,937	MFB NT COLLECTIVE GOVERNMENT/CREDIT BOND INDEX FUND - LENDING	11,000,020
10,000,000	USA TREASURY NTS TIPS DTD 00340 04-15-2016	10,806,499
10,000,000	FNMA PRIN STRIP SER 1-PRIN PMT ON 9% 2019 CAP DEB 02-01-2019 (UNDDATE) REG	8,713,240
507,107	CF WA TOTAL RETURN UNCONSTRAINED (TRU) BOND LLC	8,637,051
6,000,000	UNITED STATES TREAS BDS INDEX LINKED 1.75 DUE 01-15-2028 REG	7,462,275
6,000,000	GNMA SER 2011-19 CL JD 4 DUE 02-20-2041	6,094,134
7,000,000	CMO COMMERCIAL MTG TR 2007-GG9 CL AJ FLTRT DUE 03-10-2039 BEO	5,514,957
5,000,000	CREDIT SUISSE FIRST BOSTON MTG SECS CORP2005-C4 MTG PASSTHRU CTF CL B 15 AUG 38	5,213,945
5,000,000	SLM STUDENT LN TR 2008-2 STUD LN BACKED NT CL A-3 FLTG RATE 04-25-2023 REG	4,969,735
4,000,000	UNITED STATES TREAS BDS DTD 02/15/2006 4.5% DUE 02-15-2036 REG	4,763,124
5,000,000	FEDERAL HOME LN BKS CONS BD 2.25 DUE 08-08-2022 REG	4,734,000
5,000,000	FEDERAL HOME LN BKS CONS BD 3 11-15-2027	4,668,700
5,500,000	CMO CR SUISSE COML MTG TR SER 2006-C4 SER 2006-C4 CL-AJ DUE 09-15-2039 REG	4,649,695
5,000,000	CMO LB UBS COML MTG TR 2007 C7 MTG PASS THRU CTF CL CL B DUE 09-15-2045 REG	3,984,880
3,812,000	GNMA 2011-046 REMIC PASSTHRU CTF CL QL 4DUE 03-20-2041	3,919,281
4,100,000	BATTERY PK CY AUTH N Y REV ARS-JR-SER C-4 VAR RT DUE 11-01-2031 REG	3,731,000
3,500,000	CMO GE COML MTG CORP 2004-C2 COML MTG PASSTHRU CTF CL D DUE 03-10-2040 REG	3,573,553
3,500,000	PVTPL CMO CR SUISSE 1ST BSTN MTG SECS CORP 2004-C1 MTG CTF 144A DUE 1-15-2037	3,556,473
30,117,628	I/O CMO J P MORGAN CHASE COML MTG SECS TR 2010-C 08-05-2032 BEO	3,503,584

Space and cost restrictions make it impractical to print the entire investment portfolio in this report. However, a portfolio listing is available for review in the office of the executive director of MPERS.

Schedule of Investment Expenses

	Market Value of Assets Under Management at 6/30/2013	Fees Accrued During FY13
Management and Performance Fees:		
Cash	$ 20,734,438	$ 0
Cash/S&P 500 Futures	34,917,611	0
Internal Fixed Income	153,566,634	0
Internal US Tips	34,875,151	0
NT Gov Credit	11,000,044	0
Recoverable Taxes	1,918	0
Aberdeen Asset Management	14,755,020	18,414
ABRY Partners	14,104,874	293,239
Acadian Asset Management	112,002,605	828,701
AEW	13,503,659	210,394
Albourne	0	240,000
American Infrastructure MLP	22,955,479	275,532
Anchorage Capital	13,279,740	752,197
Apollo Real Estate	14,066,749	299,182
AQR Capital Management	16,298,283	274,202
Artio (formerly Julius Baer)	0	43,943
Audax Group	2,361,807	51,010
Barclays Global Investors	12,795,074	196,443
Blue Trend	9,173,837	370,851
Brevan Howard	15,672,947	822,236
Bridgewater Associates	15,307,025	547,970
CBRE	40,933,862	1,174,270
Cevian	12,462,100	573,370
Clarion	37,025,451	613,605
Clifton	0	125,713
Colony Capital	3,126,387	25,000
Concordia (In Liqudation)	399,250	0
CarVal Investors (CVI)	33,559,710	303,326
Deephaven Capital Management	167,408	1,680
EIF Management	7,692,008	151,941
Energy & Mineral Group Midstream Resource	16,637,642	257,255
Enhanced Investment Technologies (INTECH)	118,561,653	379,428
Golub	12,291,418	63,407
Grove Street Advisors	259,476,405	1,500,000
GSO	9,235,124	912,066
Luxor	16,488,777	1,167,106
Metacapital	8,896,524	0
Natural Gas Partners	14,533,097	296,368
Och-Ziff Real Estate	17,950,201	159,862
Ospraie	13,010,252	1,664,932
PFM	9,992,203	101,113
Pinnacle Associates	52,352,167	343,767
Principal Global Investors	117,268,605	1,001,104
RMK Timberland	12,882,375	119,973
Rothschild Asset Management	53,703,383	249,593
Silchester International Investors	90,837,771	580,572
Stark Investments (Shepard)	1,903,226	16,026
Stellium	12,899,364	711,020
Structured Portfolio Management (SPM)	11,341,765	448,390
Taconic	15,522,569	723,425
Tortoise	78,491,947	519,153
Urdang	8,605,965	65,990
ValueAct	13,658,024	1,039,985
Vectis	9,016,668	187,500
Vicis Capital	689,017	0
Walker Smith	0	33,078
Western Asset Management Company	8,637,051	132,612
Total Management and Performance Fees	**$1,651,622,264**	**20,866,944**
Other Investment Expenses:		
Investment Custodial Fee		72,579
Performance Management		102,846
General Consultant (Monitoring) Fee		312,000
Other Investment Expenses		127,429
Total Investment Income Expenses		**$ 21,481,798**
Securities Lending Expenses:		
Borrower Rebates		$ (27,457)
Bank Fees		74,954
Total Securities Lending Expenses		**$ 47,497**

Schedule of Brokerage Commissions

Brokerage Firm	Total Commission	Number of Shares	Commission Rate
BNY ESI SECURITIES CO.	$ 23,417	564,940	0.0415
CAP INSTITUTIONAL SERVICES INC	11,816	620,998	0.0190
BERNSTEIN, SANFORD C. & CO	11,075	552,395	0.0200
GOLDMAN SACHS & COMPANY	11,073	606,409	0.0183
JEFFERIES & COMPANY	10,555	1,220,966	0.0086
CREDIT SUISSE FIRST BOSTON CORPORATION	10,162	1,401,723	0.0072
NORTHERN TRUST CO	10,123	356,090	0.0284
INSTINET	8,228	476,221	0.0173
ROSENBLATT SECURITIES LLC 501	7,766	444,600	0.0175
UBS WARBURG LLC	7,460	341,107	0.0219
WEEDEN AND & CO	7,343	375,386	0.0196
CITATION GROUP	6,833	160,442	0.0426
DEUTSCHE BANK SECURITIES INC	6,769	672,662	0.0101
MERRILL LYNCH PIERCE FENNER & SMITH	5,970	538,156	0.0111
BARCLAYS CAPITAL LE	4,732	272,698	0.0174
LYNCH JONES & RYAN	4,064	269,223	0.0151
GUZMAN AND COMPANY	4,010	257,000	0.0156
CITIGROUP GLOBAL MARKETS INC.	3,625	457,628	0.0079
RBC DAIN RAUSCHER	3,226	25,585,314	0.0001
WACHOVIA CAPITAL MARKETS 46171	3,162	191,189	0.0165
STIFEL NICOLAUS AND COMPAN	2,780	32,119,144	0.0001
GABELLI AND COMPANY	2,728	68,200	0.0400
BEAR STEARNS 57079	2,244	61,340	0.0366
LIQUIDNET INC	2,207	116,782	0.0189
CITIGROUP GLOBAL MARKETS INC/SMITH BARNEY	2,129	112,327	0.0190
STEPHENS INC	1,872	46,790	0.0400
ROBERT W. BAIRD & COMPANY INC MILWAUKEE USA	1,699	44,208	0.0384
RAYMOND JAMES	1,622	45,318	0.0358
MERRILL LYNCH AND CO., INC.	1,534	41,000	0.0374
ISI GROUP INC.	1,506	89,447	0.0168
DIRECT BROKERAGE SERVICE	1,494	49,800	0.0300
BRILL SECURITIES INC	1,275	25,500	0.0500
UBS SECURITIES ASIA LIMITED	1,237	170,538	0.0073
KEEFE BRUYETTE AND WOODS INC.	1,146	28,661	0.0400
MCDONALD AND COMPANY/KEYBANC	1,093	27,326	0.0400
MORGAN STANLEY & CO INC. NEW YORK	1,067	31,725,045	0.0000
GOLDMAN, SACHS AND CO.	1,064	57,425	0.0185
OTHERS (90 firms less than $1,000 each)	18,994	848,581,115	0.0000
Total	**$209,100**	**948,775,114**	
Average Commission Rate			**0.0002**

Notes

A valuable source of time-sensitive information.

The MSHP and MoDOT use various means of communications to provide the public with alerts, warnings, and other valuable information (e.g. AMBER Alert, road closures, and criminal awareness). What once was only available through the media, is now instantly available online, your cell phone, and electronic billboards.

Kevin - 23 years

Eric - 8 years

Nancy - 21 years

Tarlice - 8 years

GRS
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October 28, 2013

The Retirement Board
Missouri Department of Transportation
and Highway Patrol Employees' Retirement System
1913 William Street
Jefferson City, Missouri 65102-1930

Ladies and Gentlemen:

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. This report should not be relied on for any purpose other than the purpose described.

The basic financial objective of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS) is to establish and receive contributions which:

(1) when expressed in terms of percents of active member payroll, will remain approximately level from generation to generation of Missouri citizens, and

(2) when combined with present assets and future investment returns, will be sufficient to meet the present and future financial obligations of MPERS.

In order to measure progress toward this fundamental objective, MPERS has annual actuarial valuations performed. The valuations (i) measure present financial position, and (ii) establish contribution rates that provide for the current cost and level percent-of-payroll amortization of unfunded actuarial liabilities over a reasonable period. An actuarial valuation was performed based upon benefit conditions, data and assumptions as of June 30, 2013. This valuation indicates that contribution rates for the period beginning July 1, 2014 that are at least equal to the calculated contributions rates will meet the Board's financial objective. The calculated contribution rates are 58.76% of payroll for the 6,100 Non-Uniformed employees and 58.19% of payroll for the 1,219 Uniformed patrol employees.

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. Member data was not otherwise audited by the actuary. The actuary summarizes and tabulates population data in order to analyze longer term trends. We are not responsible for the accuracy or completeness of the data provided by MPERS.

The Retirement Board
October 28, 2013
Page 2

Gabriel, Roeder, Smith & Company was responsible for the following schedules found in the Actuarial Section:

- Summary of Actuarial Assumptions and Methods
  - Probabilities of Separation From Active Employment
  - Individual Salary Increases
  - Joint Life Retirement Values
  - Probabilities of Retirement for Members
  - Probabilities of Disability for Members
- Summary of Member Data Included in Valuations
- Active Members by Attained Age and Years of Service
- Schedule of Active Member Valuation Data
- Solvency Test
- Derivation of Financial Experience
- Schedule of Retirees and Beneficiaries Added and Removed
- Summary of Plan Provisions
- Legislative Changes

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. Actuarial methods and assumptions were adopted by the Board pursuant to the June 30, 2012 Experience Study. In order to gain a full understanding of the actuarial condition of the plan it is important to read the entire actuarial report.

To the best of our knowledge, the report is complete and accurate and was made in accordance with standards of practice promulgated by the Actuarial Standards Board. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

The Retirement Board
October 28, 2013
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This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. Heidi Barry is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The signing actuaries are independent of the plan sponsor.

Based upon the valuation results, it is our opinion that the Missouri Department of Transportation and Highway Patrol Employees' Retirement System continues to operate in accordance with actuarial principles of level percent-of-payroll financing. It is important to the well-being of the System that it continues to receive contributions at the actuarially determined levels. It is also important to continue to monitor both the total funded status and the funded status of the retiree liabilities to ensure that the funding policy is consistent with the expected life span of the respective unfunded obligation.

Respectfully submitted,

Heidi G Barry

Heidi G. Barry, ASA, MAAA

Kenneth G. Alberts

Kenneth G. Alberts

Gabriel Roeder Smith & Company

Summary of Actuarial Methods and Assumptions

Valuation Date: .... June 30, 2013
Actuarial Cost Method: .... Entry Age
Amortized Method: .... Closed, level percent of payroll
Remaining Amortization Period: .... 18 years (single equivalent period)
Asset Valuation Method: .... 3-year smoothing
Actuarial Assumptions:
 Investment Rate of Return: 7.75%
 Projected Salary Increase: .... 3.50% to 11.00%
 Cost-of-Living Adjustments: .... 2.40% Compound
 Includes Wage Inflation at: 3.50%

An actuarial valuation is based upon an actuarial cost method, an asset valuation method, and actuarial assumptions. These methods and assumptions are chosen by the Board of Trustees after consultation with the Actuary and other advisors.

The actuarial cost method is called the Entry Age Actuarial Cost Method. This method is consistent with the Board's level percent of payroll funding objective. With this method, the level percent of payroll is determined that will fund a member's retirement benefit over the member's entire working lifetime, from date of hire (Entry Age) to date of exit from the active member population. Differences in the past between assumed and actual experience become part of unfunded actuarial accrued liabilities and are amortized with level percent of payroll contributions. This cost method was first used in the ***June 30, 1999*** valuation.

The asset valuation method is a three year smoothed market value method in which assumed investment return is recognized immediately each year and differences between actual and assumed investment return are phased in over a closed three year period. This asset valuation method is intended to give recognition to the long term accuracy of market values while filtering out and dampening short term market swings. This method was first used in the ***June 30, 1999*** valuation.

The actuarial assumptions used in producing the valuation fall into two broad classes: economic assumptions, and demographic assumptions. Economic assumptions refer to long term rates of investment return, wage growth, covered population growth, and inflation. Demographic assumptions refer to retirement rates, turnover rates, disability rates, merit and seniority pay increases, and mortality rates. The current assumptions are based upon a 2007-2012 study of experience of the MPERS. The assumptions are reviewed from time to time to keep them reasonably current with expected experience.

Economic Assumptions

The investment return rate used in making the valuation was 7.75% per year, compounded annually (net after administrative expenses). This rate of return is not the assumed real rate of return. The real rate of return over wage inflation is defined to be the portion of investment return which is more than the wage inflation rate. Considering wage inflation recognition of 3.50%, the 7.75% rate translates to an assumed real rate of return over wage inflation of 4.25%. This rate was first used for the ***June 30, 2013*** valuation.

Summary of Actuarial Methods and Assumptions

Pay increase assumptions for individual active members are shown on Tables VI and VII. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.50% recognizes wage inflation. These rates were first used for the **June 30, 2013** valuation.

Price Inflation is assumed to be 3.00%. This results in a 2.4% annual COLA assumption. It is assumed that the 2.4% COLA will always be paid.

The Active Member Group size is assumed to remain constant at its present level.

The active member payroll for MoDOT members is assumed to increase 1.50% next year and 3.50% annually thereafter. The active member payroll for all other members is assumed to increase 3.50% annually for all years.

Non Economic Assumptions

The mortality table used to measure retired life mortality was the RP-2000 Combined Healthy Mortality Tables projected 16 years and set back 1 year for males and females. Related values are shown on Table I. This table was first used for the **June 30, 2013** valuation. Disabled pension mortality was based on PBGC Disabled Mortality tables. The healthy mortality tables include a margin for mortality improvement. The margin is in the 16-year projection. The disabled mortality tables do not include a margin for mortality improvement.

The probabilities of retirement for members eligible to retire are shown on Table II. The rates for full retirement were first used in the **June 30, 2013** valuation. The rates for reduced retirement were first used in the June 30, 2013 valuation. Upon retirement, members are assumed to pick the BackDROP period that when combined with the remaining annuity produces the highest liability.

The probabilities of disability for members eligible to retire are shown on Table III. The rates for disability were first used in the **June 30, 2013** valuation.

The probabilities of withdrawal from service, death in service and disability are shown for sample ages on Tables IV and V. The death-in-service and disability rates were first used in the June 30, 2013 valuation. The withdrawal rates were first used in the June 30, 2013 valuation.

The data about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary. Data was furnished as of May 31 and assumed to be statistically equivalent to June 30.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA).

Probabilities of Separation From Active Employment
Less Than 5 Years of Service

Service	MoDOT, Civilian Patrol and MPERS		Uniformed Patrol	
	Male	Female	Male	Female
0-1	30.00%	20.00%	10.00%	10.00%
1-2	16.00	14.00	7.00	7.00
2-3	9.00	11.00	3.25	3.25
3-4	7.00	9.00	3.00	3.00
4-5	5.50	5.00	2.75	2.75

Probabilities of Separation From Active Employment
More Than 5 Years of Service

Age	MoDOT, Civilian Patrol and MPERS		Uniformed Patrol	
	Male	Female	Male	Female
25	5.75%	5.10%	2.70%	2.70%
30	5.12	5.10	2.70	2.70
35	4.12	4.59	1.91	1.91
40	3.21	3.74	1.13	1.13
45	2.41	2.89	0.79	0.79
50	1.76	2.04	0.46	0.46
55	1.29	1.19	0.23	0.23
60	1.04	0.34	0.17	0.17

Salary Increase Assumptions For an Individual Member

Age Based Salary Scale

	MoDOT, Civilian Patrol and MPERS			Uniformed Patrol		
Age	Merit & Seniority	Base (Economic)	Increase Next Year	Merit & Seniority	Base (Economic)	Increase Next Year
20	4.40%	3.50%	7.90%	6.00%	3.50%	9.50%
25	3.18	3.50	6.68	4.25	3.50	7.75
30	2.59	3.50	6.09	2.48	3.50	5.98
35	2.09	3.50	5.59	1.54	3.50	5.04
40	1.44	3.50	4.94	1.09	3.50	4.59
45	0.68	3.50	4.18	0.71	3.50	4.21
50	0.12	3.50	3.62	0.45	3.50	3.95
55	0.00	3.50	3.50	0.29	3.50	3.79
60	0.00	3.50	3.50	0.23	3.50	3.73

Joint Life Retirement Values (7.75% Interest)

Sample Attained Ages	Present Value of $1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	$147.46	$147.37	33.34	35.39
55	142.23	142.00	28.61	30.63
60	135.19	134.87	24.03	26.02
65	126.18	125.80	19.69	21.67
70	115.18	114.73	15.71	17.66
75	101.84	101.56	12.07	14.01
80	86.45	86.42	8.86	10.73

The present values shown above are for illustrative purposes only and include a 50% survivor benefit but do not include the value of future post-retirement increases. Males are assumed to be 3 years older than their spouses.

Percent of Eligible Active Members Retiring Next Year (Rates of Retirement)

Closed and Year 2000 Plans

	MoDOT, Civilian Patrol and MPERS				Uniformed Patrol	
	Male		Female		Male	Female
Age	Normal	Early	Normal	Early	Normal	Normal
50	30.00%	0.00%	25.00%	0.00 %	35.00%	35.00%
55	27.00	3.00	32.00	3.00	20.00	20.00
60	19.00	8.00	22.00	6.00	100.00	100.00
65	35.00	0.00	35.00	0.00	100.00	100.00
70	40.00	0.00	50.00	0.00	100.00	100.00

Year 2000 Plan – 2011 Tier

	MoDOT, Civilian Patrol and MPERS Normal		Uniformed Patrol	
Age	Age & Service	Rule of 90	Early	Normal
55	0.00%	30.00%	0.00%	30.00%
60	0.00	30.00	0.00	30.00
65	0.00	30.00	10.00	30.00
70	100.00	100.00	0.00	100.00

Percent of Members Becoming Disabled at the Indicated Age (Rates of Disability)

	MoDOT, Civilian Patrol and MPERS		Uniformed Patrol	
Age	Male	Female	Male	Female
25	0.04%	0.07%	0.01%	0.01%
30	0.09	0.08	0.02	0.02
35	0.13	0.13	0.02	0.02
40	0.17	0.17	0.05	0.05
45	0.23	0.36	0.09	0.09
50	0.33	0.55	0.19	0.19
55	0.62	0.74	0.35	0.35
60	1.12	0.90	0.58	0.58

Summary of Member Data Included In Valuations

	Non-Uniformed				
	Civilian Patrol	MoDOT and MPERS	Non-Uniformed Total	Uniformed Patrol	Grand Total
Active Members					
Closed Plan	467	2,490	2,957	695	3,652
Year 2000 Plan (also closed)	508	2,142	2,650	407	3,057
Year 2000 Plan - 2011 Tier (open)	147	346	493	117	610
Total Active Members	1,122	4,978	6,100	1,219	7,319
Total Active Members Prior Year	1,128	5,115	6,243	1,215	7,458
Retiree - Regular Pensioners					
Closed Plan	439	3,721	4,160	835	4,995
Year 2000 Plan (also closed)	442	2,676	3,118	2	3,120
Year 2000 Plan - 2011 Tier (open)	0	0	0	0	0
Total Regular Pensioners	881	6,397	7,278	837	8,115
Self Insured Disability Pensioners	5	56	61	3	64
Fully Insured Disability Pensioners	10	98	108	3	111
Terminated Vested Members	230	1,760	1,990	162	2,152
Total	**2,248**	**13,289**	**15,537**	**2,224**	**17,761**
Active Member Valuation Payroll	$43,091,397	$205,790,486	$248,881,883	$74,323,885	$323,205,768
Active Member Valuation Payroll Prior Year	$42,605,045	$213,982,134	$256,587,179	$72,705,989	$329,293,168
Unfunded Actuarial Accrued Liability	N/A	N/A	$1,477,201,166	$449,372,000	$1,926,573,166

Member data for actuarial valuation is as of May 31, 2013

Active Members By Attained Age and Years of Service

MoDOT and MPERS

Closed Plan

Attained Age	Counted by Complete Years of Service to Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals No.	Totals Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	$ 0
20-24	-	-	-	-	-	-	-	0	0
25-29	-	-	-	-	-	-	-	0	0
30-34	-	-	27	2	-	-	-	29	1,112,219
35-39	-	-	128	77	2	-	-	207	9,324,338
40-44	-	-	86	259	96	3	-	444	21,543,826
45-49	-	2	90	168	212	120	10	602	29,125,301
50-54	-	-	68	154	167	235	51	675	32,707,823
55-59	-	-	41	111	92	81	47	372	17,125,988
60-64	-	1	30	34	33	25	11	134	5,934,918
65-69	-	-	-	10	7	4	2	23	1,076,474
70+	-	-	-	-	3	-	1	4	207,515
Totals	**0**	**3**	**470**	**815**	**612**	**468**	**122**	**2,490**	**$118,158,402**

Average Age	**49.0 years**
Average Service	**20.7 years**
Average Pay	**$47,453**

Year 2000 Plan

Attained Age	Counted by Complete Years of Service to Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals No.	Totals Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	$ 0
20-24	14	-	-	-	-	-	-	14	395,834
25-29	96	111	-	-	-	-	-	207	7,543,993
30-34	70	235	98	-	-	-	-	403	16,106,117
35-39	71	168	128	-	-	-	-	367	14,090,313
40-44	63	149	95	1	-	-	-	308	11,298,490
45-49	40	129	91	-	-	-	-	260	9,227,283
50-54	49	140	107	1	2	-	-	299	10,941,627
55-59	31	102	52	1	-	-	-	186	6,668,149
60-64	8	36	32	2	1	-	-	79	2,859,674
65-69	1	10	5	1	-	-	-	17	650,811
70+	1	1	-	-	-	-	-	2	45,247
Totals	**444**	**1,081**	**608**	**6**	**3**	**0**	**0**	**2,142**	**$79,827,538**

Average Age	**41.9 years**
Average Service	**8.0 years**
Average Pay	**$37,268**

Member data for actuarial valuation is as of May 31, 2013.

Active Members By Attained Age and Years of Service

MoDOT and MPERS

Year 2000 Plan - 2011 Tier

Attained Age	Counted by Complete Years of Service to Valuation Date: 0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals: No.	Valuation Payroll
Under 20	1	-	-	-	-	-	-	1	$ 21,246
20-24	42	-	-	-	-	-	-	42	846,943
25-29	75	-	-	-	-	-	-	75	1,585,381
30-34	54	-	-	-	-	-	-	54	1,151,963
35-39	39	-	-	-	-	-	-	39	912,167
40-44	42	-	-	-	-	-	-	42	968,556
45-49	27	-	-	-	-	-	-	27	813,556
50-54	36	-	-	-	-	-	-	36	832,238
55-59	23	-	-	-	-	-	-	23	498,427
60-64	5	-	-	-	-	-	-	5	133,215
65-69	2	-	-	-	-	-	-	2	40,854
70+	-	-	-	-	-	-	-	0	0
Totals	**346**	**0**	**0**	**0**	**0**	**0**	**0**	**346**	**$7,804,546**

Average Age	**36.9 years**
Average Service	**0.4 years**
Average Pay	**$22,556**

Member data for actuarial valuation is as of May 31, 2013.

Active Members By Attained Age and Years of Service

Uniformed Patrol

Closed Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	$ 0
20-24	-	-	-	-	-	-	-	0	0
25-29	-	-	-	-	-	-	-	0	0
30-34	-	-	2	-	-	-	-	2	118,558
35-39	-	-	30	42	-	-	-	72	4,365,072
40-44	-	1	20	183	16	-	-	220	14,619,128
45-49	1	-	6	79	97	15	-	198	14,387,315
50-54	-	-	1	21	31	69	21	143	11,175,283
55-59	-	-	-	2	6	19	31	58	4,732,365
60-64	-	-	-	-	-	-	2	2	152,917
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	**1**	**1**	**59**	**327**	**150**	**103**	**54**	**695**	**$49,550,638**

Average Age	**46.2 years**
Average Service	**21.0 years**
Average Pay	**$71,296**

Year 2000 Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	$ 0
20-24	3	-	-	-	-	-	-	3	120,663
25-29	62	51	-	-	-	-	-	113	5,334,420
30-34	14	96	26	-	-	-	-	136	6,776,433
35-39	8	27	65	-	-	-	-	100	5,111,786
40-44	3	12	26	-	-	-	-	41	2,052,095
45-49	1	5	6	-	-	-	-	12	593,297
50-54	-	-	1	-	-	-	-	1	59,636
55-59	-	-	1	-	-	-	-	1	51,520
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	**91**	**191**	**125**	**0**	**0**	**0**	**0**	**407**	**$20,099,850**

Average Age	**33.3 years**
Average Service	**7.7 years**
Average Pay	**$49,385**

Member data for actuarial valuation is as of May 31, 2013.

Active Members By Attained Age and Years of Service

Uniformed Patrol

Year 2000 Plan - 2011 Tier

Attained Age	Counted by Complete Years of Service to Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	$ 0
20-24	37	-	-	-	-	-	-	37	1,436,164
25-29	58	-	-	-	-	-	-	58	2,397,936
30-34	13	-	-	-	-	-	-	13	508,026
35-39	5	-	-	-	-	-	-	5	193,021
40-44	3	-	-	-	-	-	-	3	107,201
45-49	1	-	-	-	-	-	-	1	31,049
50-54	-	-	-	-	-	-	-	0	0
55-59	-	-	-	-	-	-	-	0	0
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	**117**	**0**	**0**	**0**	**0**	**0**	**0**	**117**	**$4,673,397**

Average Age	**27.1 years**
Average Service	**1.6 years**
Average Pay	**$39,944**

Member data for actuarial valuation is as of May 31, 2013.

Active Members By Attained Age and Years of Service

Civilian Patrol

Closed Plan

Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals No.	Totals Valuation Payroll
	Counted by Complete Years of Service to Valuation Date								
Under 20	-	-	-	-	-	-	-	0	$ 0
20-24	-	-	-	-	-	-	-	0	0
25-29	-	-	-	-	-	-	-	0	0
30-34	-	1	1	2	-	-	-	4	135,966
35-39	-	-	15	17	-	-	-	32	1,377,244
40-44	-	1	12	34	10	-	-	57	2,619,056
45-49	-	1	10	42	33	18	1	105	4,513,195
50-54	-	-	13	27	36	36	17	129	5,662,061
55-59	-	-	6	24	18	16	13	77	3,389,928
60-64	-	-	6	16	9	11	9	51	2,108,629
65-69	-	-	1	2	4	3	-	10	343,879
70+	-	-	-	1	-	1	-	2	66,758
Totals	**0**	**3**	**64**	**165**	**110**	**85**	**40**	**467**	**$20,216,716**

Average Age	**50.8 years**
Average Service	**21.2 years**
Average Pay	**$43,291**

Year 2000 Plan

Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals No.	Totals Valuation Payroll
	Counted by Complete Years of Service to Valuation Date								
Under 20	-	-	-	-	-	-	-	0	$ 0
20-24	2	-	-	-	-	-	-	2	56,412
25-29	45	21	1	-	-	-	-	67	2,559,372
30-34	19	60	17	-	-	-	-	96	3,897,367
35-39	10	38	24	-	-	-	-	72	2,867,649
40-44	17	32	18	-	-	-	-	67	2,355,174
45-49	9	31	18	-	-	-	-	58	2,127,879
50-54	15	19	29	1	-	-	-	64	2,264,248
55-59	5	19	16	-	-	-	-	40	1,326,593
60-64	4	10	12	-	-	-	-	26	850,037
65-69	2	6	4	-	-	-	-	12	385,272
70+	-	2	2	-	-	-	-	4	106,170
Totals	**128**	**238**	**141**	**1**	**0**	**0**	**0**	**508**	**$18,796,173**

Average Age	**42.3 years**
Average Service	**7.6 years**
Average Pay	**$37,000**

Member data for actuarial valuation is as of May 31, 2013.

Active Members By Attained Age and Years of Service

Civilian Patrol

Year 2000 Plan - 2011 Tier

Attained Age	Counted by Complete Years of Service to Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	$ 0
20-24	25	-	-	-	-	-	-	25	608,868
25-29	47	-	-	-	-	-	-	47	1,449,944
30-34	13	-	-	-	-	-	-	13	364,416
35-39	13	-	-	-	-	-	-	13	351,498
40-44	15	-	-	-	-	-	-	15	418,415
45-49	13	-	-	-	-	-	-	13	359,131
50-54	7	-	-	-	-	-	-	7	175,966
55-59	9	-	-	-	-	-	-	9	234,192
60-64	4	-	-	-	-	-	-	4	91,292
65-69	-	-	-	-	-	-	-	0	0
70+	1	-	-	-	-	-	-	1	24,786
Totals	**147**	**0**	**0**	**0**	**0**	**0**	**0**	**147**	**$4,078,508**

Average Age	**35.1 years**
Average Service	**1.3 years**
Average Pay	**$27,745**

Member data for actuarial valuation is as of May 31, 2013.

Schedule of Active Member Valuation Data

Actuarial Valuation for June 30,	Number of Active Members	Covered Payroll	Average Pay	Percent Change in Average Pay from Prior Year
2003	8,892	$318,744,192	$35,846	-0.30%
2004	9,002	328,210,887	36,460	1.70%
2005	9,193	345,695,867	37,604	3.10%
2006	9,033	348,614,699	38,593	2.60%
2007	8,640	360,842,421	41,764	8.20%
2008	8,599	369,424,653	42,961	2.90%
2009	8,784	377,652,245	42,993	0.10%
2010	8,457	369,911,252	43,740	1.70%
2011	8,231	361,639,001	43,936	0.40%
2012	7,458	329,293,168	44,153	0.50%
2013	7,319	323,205,768	44,160	0.00%
			Ten-Year Average	**2.12%**

Member data for actuarial valuation is as of May 31, 2013.

Solvency Test

The MPERS funding objective is to meet long term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will ***pay all promised benefits when due – the ultimate test of financial soundness.***

A solvency test is one means of checking a system's progress under its funding program. In a solvency test for a non-contributory plan, the plan's present assets (cash and investments) are compared with: 1) The liabilities for future benefits to present retired lives and 2) The liabilities for service already rendered by members. In a system that has been following the discipline of level percent of payroll financing, the liabilities for future benefits to present retired lives (liability 1) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by members (liability 2) will be partially covered by the remainder of present assets. The larger the funded portion of liability 2, the stronger the condition of the system.

The schedule below illustrates the history of liability 2 of the System.

Valuation Date June 30	(1) Member Contributions	(2) Retirees and Beneficiaries	(3) Active and Inactive Members	Present Valuation Assets	Portion of Present Values Covered by Present Assets			
					(1)	(2)	(3)	Total
	------------------------***Millions***	------------------------						
1999	$0	$1,132	$921	$1,243	100%	100%	12%	61%
2000	0	1,238	951	1,423	100%	100%	19%	65%
2001	0	1,375	926	1,521	100%	100%	16%	66%
2002*	0	1,470	888	1,451	100%	99%	0%	62%
2003	0	1,555	863	1,367	100%	88%	0%	56%
2004	0	1,626	867	1,332	100%	82%	0%	43%
2005	0	1,669	958	1,417	100%	85%	0%	54%
2006	0	1,734	1,007	1,521	100%	88%	0%	46%
2007	0	1,810	1,057	1,686	100%	93%	0%	58%
2008	0	1,873	1,147	1,784	100%	95%	0%	59%
2009	0	1,947	1,166	1,471	100%	76%	0%	47%
2010*	0	2,034	1,225	1,376	100%	68%	0%	42%
2011	0	2,045	1,253	1,427	100%	70%	0%	43%
2012*	0	2,133	1,173	1,531	100%	72%	0%	46%
2013*	1	2,333	1,250	1,657	100%	71%	0%	46%

**** New assumptions and/or methods adopted.***

Derivation of Financial Experience

Actual experience will never coincide exactly with assumed experience (except by coincidence). Gains and losses may offset each other over a period of years, but sizeable year-to-year variations from assumed experience are common. Detail on the derivation of the experience gain (loss) is shown below.

UAAL Beginning of Year (at July 1)	$1,775,245,058
Normal Cost	47,434,823
Contributions	(173,703,401)
Interest	141,249,139
Net Change in LTD Assets	-
Expected UAAL Before Any Changes	1,790,225,619
Effect of Changes in Assumptions & Methods	204,396,180
Effect of Adjustment	-
Expected UAAL After Changes	1,994,621,799
End of Year UAAL (at June 30)	1,926,573,166
Gain/(Loss) for Year	$68,048,633
Gain/(Loss) as a Percent of Actuarial Accrued Liabilities at Start of Year ($3,306.3 million)	2.1%

Valuation Date June 30	**Experience Gain (Loss) as % of Beginning Accrued Liability**
1999	(7.7)%
2000	(0.1)%
2001	(9.3)%
2002	(4.5)%
2003	(5.2)%
2004	(2.9)%
2005	(1.5)%
2006	1.4%
2007	1.1%
2008	(0.2)%
2009	(12.6)%
2010	(3.8)%
2011	2.2%
2012	3.2%
2013	**2.1%**

Schedule of Retirees and Beneficiaries Added and Removed

Valuation Date	Added to Rolls: Number	Added to Rolls: Annual Allowances	Removed from Rolls: Number	Removed from Rolls: Annual Allowances	Rolls End of Year: Number	Rolls End of Year: Annual Allowances	Average Annual Allowances	% Increase in Annual Allowance	% Increase in Average Annual Allowance
FY2013									
Retirees	395	$5,001,943	174	$2,761,791	6,234	$172,564,478	$27,681	4.56%	0.85%
Beneficiaries	130	1,349,835	96	717,434	1,914	$30,077,515	15,714	6.79%	5.00%
Disabilities	27	0	23	6,788	179	$904,683	5,082	-1.88%	-3.00%
FY2012									
Retirees	413	$5,988,784	171	$2,119,116	6,013	$165,042,751	$27,448	4.10%	-0.09%
Beneficiaries	130	1,206,259	105	610,931	1,880	$28,166,374	14,966	5.20%	3.69%
Disabilities	34	0	25	16,712	175	$922,027	5,239	0.39%	-5.31%
FY2011									
Retirees	311	$3,955,409	146	$2,406,006	5,771	$158,543,113	$27,472	0.74%	-2.14%
Beneficiaries	102	891,718	109	710,880	1,855	26,772,995	14,433	-1.17%	-0.79%
Disabilities	38	0	14	10,399	166	918,403	5,533	1.69%	-13.00%
FY2010									
Retirees	272	$3,218,890	137	$3,252,182	5,606	$157,380,575	$28,074	3.29%	0.80%
Beneficiaries	103	930,442	104	625,292	1,862	27,089,491	14,549	5.79%	5.85%
Disabilities	21	0	25	73,638	142	903,107	6,360	-40.95%	-39.29%
FY2009									
Retirees	292	$4,125,644	178	$2,136,578	5,471	$152,372,034	$27,851	4.49%	2.31%
Beneficiaries	138	1,134,755	108	622,167	1,863	25,606,266	13,745	7.80%	6.07%
Disabilities	19	0	28	71,381	146	1,529,412	10,475	-11.67%	-6.23%
FY2008									
Retirees	331	$3,940,198	151	$1,202,185	5,357	$145,826,691	$27,222	4.97%	1.45%
Beneficiaries	113	763,176	92	437,560	1,833	23,753,030	12,959	6.59%	5.37%
Disabilities	21	54,465	32	57,913	155	1,731,521	11,171	-22.63%	-17.14%
FY2007									
Retirees	310	$3,052,533	157	$1,373,300	5,177	$138,917,326	$26,834	4.87%	1.77%
Beneficiaries	131	51,253	112	617,163	1,812	22,283,555	12,298	8.09%	6.96%
Disabilities	36	0	24	116,307	166	2,237,892	13,481	38.31%	28.31%
FY2006									
Retirees	252	$3,005,557	166	$1,477,199	5,024	$132,465,613	$26,367	3.89%	1.74%
Beneficiaries	106	715,154	75	381,966	1,793	20,615,839	11,498	7.09%	5.24%
Disabilities	22	170,138	22	106,561	154	1,618,075	10,507	9.70%	8.99%
FY2005									
Retirees	202	$4,685,700	125	$2,373,810	4,920	$127,508,904	$25,916	3.53%	1.91%
Beneficiaries	106	1,527,938	79	618,487	1,762	19,251,121	10,926	7.95%	6.29%
Disabilities	7	95,296	7	47,561	153	1,474,983	9,640	-1.86%	-1.86%
FY2004									
Retirees	295	$7,389,209	143	$2,239,625	4,843	$123,159,002	$25,430	5.95%	2.62%
Beneficiaries	114	1,423,712	89	557,685	1,735	17,833,685	10,279	7.64%	6.08%
Disabilities	9	87,586	11	36,938	153	1,502,868	9,823	-19.77%	-18.72%

**New disabilities are covered / paid by the Standard Insurance Co.*
Data of this chart is as of June 30, 2013.

Summary of Plan Provisions *

Comparison of the Closed Plan, the Year 2000 Plan, and the Year 2000 Plan - 2011 Tier
For the Year Ended June 30, 2013

Plan Provision	Closed Plan	Year 2000 Plan	Year 2000 Plan - 2011 Tier
Membership Eligibility	• Members who work in a position normally requiring at least 1,040 hours of work a year.	• Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year. • Members who left state employment prior to becoming vested and return to work on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.	• Members hired for the first time on or after January 1, 2011, in a position normally requiring at least 1,040 hours of work a year. • Members who have never worked for a state agency covered by MPERS or MOSERS prior to January 1, 2011.
Normal Retirement Eligibility	• Age 65 & active with 4 years of service. • Age 65 with 5 years of service. • Age 60 with 15 years of service. • "Rule of 80"/minimum age 48. <u>Uniformed Members Only:</u> • Age 55 & active with 4 years of service. • Age 55 with 5 years of service. • "Rule of 80"/minimum age 48. • Age 60 & active – mandatory, no minimum service.	• Age 62 with 5 years of service. • "Rule of 80"/minimum age 48. <u>Uniformed Members Only:</u> • "Rule of 80"/minimum age 48. • Age 60 & active - mandatory with 5 years of service.	• Age 67 with 10 years of service. • "Rule of 90"/minimum age 55. <u>Uniformed Members Only:</u> • Age 55 & active with 10 years of creditablee service. • Age 60 & active - mandatory, no minimum service.
Early (Reduced) Retirement Eligibility	• Age 55 with 10 years creditable service.	• Age 57 with 5 years creditable service.	• Age 62 & active with 10 years of creditable service.
Benefit Life Benefit	1.6% x FAP** x service (Base benefit is increased by 33 1/3% for uniformed patrol members only.)	1.7% x FAP** x service	1.7% x FAP** x service
Temporary Benefit	Not available.	0.8% x FAP** x service Until age 62, only if retiring under "Rule of 80". <u>Uniformed Members Only:</u> Until age 62, if retiring under either normal retirement eligibility provision.	0.8% x FAP** x service Until age 62, only if retiring under "Rule of 90". <u>Uniformed Members Only:</u> Until age 62, if retiring under either normal retirement eligibility provision.
Vesting	5 years of service.	5 years of service.	10 years of service.
COLA (Cost-of-Living Allowance)	• If hired before August 28, 1997, annual COLA is a minimum of 4%, maximum 5%, based on 80% of the increase in the CPI-U over the previous year, up to a maximum of 65% of original benefit. • After 65% cap is reached, annual COLA increase will be equal to 80% of the change in the CPI-U, with a maximum of 5%. • If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI-U with a maximum rate of 5%.	• Annual COLA is equal to 80% of the change in the CPI-U with a maximum rate of 5%.	• Annual COLA is equal to 80% of the change in the CPI-U with a maximum rate of 5%.

Summary of Plan Provisions *

Comparison of the Closed Plan, the Year 2000 Plan, and the Year 2000 Plan - 2011 Tier
For the Year Ended June 30, 2013

Plan Provision	**Closed Plan**	**Year 2000 Plan**	**Year 2000 Plan - 2011 Tier**
Survivor Benefit (Death before retirement) Non Duty-Related Death	• Survivor benefit to eligible spouse calculated using the Joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children under age 21. • If at least 3, but less than 5, years of service the survivor benefit is calculated using 25% of the member's base benefit calculated as if the member retired on their date of death.	• Survivor benefit to eligible spouse calculated using the Joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children under age 21.	• Survivor benefit to eligible spouse calculated using the Joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children under age 21.
Duty-Related Death	• Survivor benefit to eligible spouse or children no less than 50% of final average pay (no minimum service requirement).	• Survivor benefit to eligible spouse or children no less than 50% of final average pay (no minimum service requirement).	• Survivor benefit to eligible spouse or children no less than 50% of final average pay (no minimum service requirement).
Optional Forms of Payment	Payment options include: • Life Income Annuity • Unreduced Joint & 50% Survivor • Joint & 100% Survivor • 60 or 120 Guaranteed Payments • BackDROP	Payment options include: • Life Income Annuity • Joint & 50% Survivor • Joint & 100% Survivor • 120 or 180 Guaranteed Payments • BackDROP	Payment options include: • Life Income Annuity • Joint & 50% Survivor • Joint & 100% Survivor • 120 or 180 Guaranteed Payments
Disability	Long-Term Disability and Work-Related Disability	Long-Term Disability and Work-Related Disability	Long-Term Disability and Work-Related Disability
Employee Contributions	Non-contributory	Non-contributory	4% of Gross Pay

**This summary describes the plan provisions of the Revised Statutes of Missouri (RSMo), as amended, that governed the programs, which MPERS administered during the period covered by this report. It does not overrule any applicable statute or administrative rule and, in the event of a conflict, the applicable statute or rule would apply. The Year 2000 Plan was effective July 1, 2000 and the Year 2000 Plan – 2011 Tier was effective January 1, 2011. A complete summary is available at the MPERS office.*

***Final Average Pay – average of highest 36 consecutive months of pay.*

Legislative Changes

On July 2, 2013, Governor Jay Nixon signed into law SCS for HCS for House Bill 233. The bill contained minor "cleanup" legislation to clarify the administration of certain provisions or to eliminate inconsistencies in the law with regard to the retirement plans administered by the MoDOT and Patrol Employees' Retirement System (MPERS) and the Missouri State Employees' Retirement System (MOSERS).

Notes

Statistical Section

Risking their lives to keep us safe.

Each year, countless lives are lost to accidents and criminal activity. A routine stop on the highways or waterways could suddenly turn deadly. Bad weather fuels the chances of a vehicle accidently sliding into an innocent victim while that person is directing traffic or assisting another motorist.

Brad - 8 years Rich 6 - years Jeanne - 24 years Shannon - 15 years

STATISTICAL SUMMARY

Changes in Net Assets
The chart on page 68 details a 10-year history of the additions (revenues) and deductions (expenses) of MPERS.

The chart on page 69 details a 10-year history of benefit payments by type.

Plan Membership
Overall, MPERS' membership increased by 265. Retired members and their beneficiaries increased by 258, terminated-vested members increased by 115, and active members decreased by 108.

The charts beginning on page 70 detail the number of retired members by type of benefit and the average monthly benefit payments.

Other charts and graphs in this section detail demographic information concerning our members and employers.

All non-accounting data in this section was derived from internal sources and the annual actuarial valuation reports. Member data may differ between some schedules since the valuations are performed using data as of May 31 each year.

Changes in Net Position

MoDOT and Patrol Employees' Retirement System
Changes in Net Position, Last Ten Fiscal Years

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Additions										
Employer Contributions	$86,724,914	$102,240,145	$111,271,679	$121,264,532	$123,335,151	$122,599,301	$124,052,534	$150,022,169	$164,880,140	$170,836,117
Employee Contributions (1)	0	0	0	0	0	0	0	45,361	202,843	503,550
Transfers from Other Systems (2)	174,140	0	0	0	0	0	0	17,609,276	264,954	1,727,834
Other Contributions	668,525	364,680	271,038	529,926	1,192,527	444,000	424,172	453,984	908,898	635,900
Net Investment Income	180,910,907	144,641,068	212,206,238	283,549,424	(42,915,886)	(426,265,311)	166,307,054	279,612,052	42,091,564	198,139,438
Other Income	33,851	31,104	41,542	31,580	31,546	33,571	33,145	33,141	13,760	1,650
Total Additions to Plan Net Position	268,512,337	247,276,997	323,790,497	405,375,462	81,643,338	(303,188,439)	290,816,905	447,775,983	208,362,159	371,844,489
Deductions										
Benefit Payments	154,987,027	157,742,337	164,997,406	175,970,479	185,801,362	192,013,250	196,721,274	202,153,768	219,704,320	224,518,100
Administrative Expenses	1,639,133	1,916,592	1,927,594	2,120,764	2,371,215	2,339,501	2,512,181	2,658,849	2,934,969	2,997,225
Total Deductions from Plan Net Position	156,626,160	159,658,929	166,925,000	178,091,243	188,172,577	194,352,751	199,233,455	204,812,617	222,639,289	227,515,325
Change in Net Position	**$111,886,177**	**$87,618,068**	**$156,865,497**	**$227,284,219**	**$(106,529,239)**	**$(497,541,190)**	**$91,583,450**	**$242,963,366**	**$(14,277,130)**	**$144,329,164**

(1) Employee contributions began January 1, 2011 for members in the Year 2000 Plan - 2011 Tier.

(2) 2004 transfer from MOSERS for Highway Satety employees and 2011 transfer from MOSERS for Water Patrol employees.

Benefit Payments By Type

MoDOT and Patrol Employees' Retirement System
Benefit Payments by Type, Last Ten Fiscal Years

Type of Benefit	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Age and Service Benefits:										
Retiree and Survivor Annuity Payments	$138,767,316	$145,118,809	$151,647,091	$159,145,368	$167,654,271	$175,588,494	$183,103,253	$188,171,369	$195,964,396	$205,617,640
BackDROP Payments	14,318,622	8,880,770	9,721,059	13,177,432	14,631,932	12,859,452	10,358,181	10,792,932	18,138,891	13,426,923
Disability Benefits:										
Long-Term Disability	555,434	475,948	386,026	288,908	223,501	179,239	137,624	101,875	85,240	79,964
Work-Related Disability(1)	633,299	718,248	747,723	703,159	728,507	692,043	664,469	648,320	668,821	691,227
Normal Disability(1)	302,356	295,776	244,208	220,490	207,417	186,349	163,485	167,427	166,140	138,281
Insured Disability(2)	0	1,837,786	1,796,299	1,905,122	1,835,734	1,847,673	1,759,262	1,696,845	1,592,517	1,512,685
Death Benefits	410,000	415,000	455,000	530,000	520,000	660,000	535,000	575,000	675,000	665,000
Service Transfer Payments(4)	0	0	0	0	0	0	0	0	2,410,526	2,357,080
Employee Contribution Refunds (3)	0	0	0	0	0	0	0	0	2,789	29,300
Total Benefits	**$154,987,027**	**$157,742,337**	**$164,997,406**	**$175,970,479**	**$185,801,362**	**$192,013,250**	**$196,721,274**	**$202,153,768**	**$219,704,320**	**$224,518,100**

(1) Prior to FY04, work-related and normal disabilities were reported as retiree benefits.
(2) Outsourced LTD program began 07/01/04.
(3) Employee contributions began January 1, 2011 for members in the Year 2000 Plan - 2011 Tier.
(4) Reciprocal transfer legislation enacted effective August 28, 2011.

Schedule of Retired Members By Type of Benefit

All Members*

Amount of Monthly Benefit	Retirement Normal	Retirement Early	Disability Normal	Disability Work-Related	Disability Long-Term	Survivor	Total Recipients
1 - 200	20	68	3	27	89	126	333
201 - 400	145	162	3	0	7	212	529
401 - 600	148	128	1	1	7	230	515
601 - 800	150	79	2	0	1	210	442
801 - 1000	197	46	2	2	1	169	417
1001 - 1200	237	23	1	1	0	146	408
1201 - 1400	330	12	2	2	1	119	466
1401 - 1600	369	9	1	2	0	93	474
1601 - 1800	374	1	0	5	0	86	466
1801 - 2000	392	3	0	4	0	73	472
2001 - 2200	321	5	0	5	0	71	402
2201 - 2400	323	1	0	2	0	56	382
2401 - 2600	331	1	0	1	0	49	382
2601 - 2800	332	0	0	1	0	50	383
2801 - 3000	275	1	0	2	0	45	323
> 3000	1,751	0	0	2	0	179	1,932
TOTALS	**5,695**	**539**	**15**	**57**	**106**	**1,914**	**8,326**

* This chart includes eight retirement system staff retirees

MoDOT

Amount of Monthly Benefit	Retirement Normal	Retirement Early	Disability Normal	Disability Work-Related	Disability Long-Term	Survivor	Total Recipients
1 - 200	15	49	3	24	79	117	287
201 - 400	111	135	3	0	7	190	446
401 - 600	103	107	1	1	5	204	421
601 - 800	110	71	2	0	1	186	370
801 - 1000	147	40	2	2	1	149	341
1001 - 1200	198	22	1	1	0	129	351
1201 - 1400	287	10	2	2	1	102	404
1401 - 1600	314	9	1	2	0	67	393
1601 - 1800	319	1	0	5	0	74	399
1801 - 2000	331	3	0	3	0	62	399
2001 - 2200	277	5	0	4	0	50	336
2201 - 2400	268	1	0	0	0	37	306
2401 - 2600	289	1	0	1	0	29	320
2601 - 2800	294	0	0	1	0	30	325
2801 - 3000	245	1	0	2	0	36	284
> 3000	1,048	0	0	1	0	136	1,185
TOTALS	**4,356**	**455**	**15**	**49**	**94**	**1,598**	**6,567**

Schedule of Retired Members By Type of Benefit

Uniformed Patrol

Amount of Monthly Benefit	Type of Benefit: Retirement Normal	Retirement Early	Disability Normal	Disability Work-Related	Disability Long-Term	Survivor	Total Recipients
1 - 200	0	0	0	2	1	1	4
201 - 400	0	0	0	0	0	6	6
401 - 600	10	0	0	0	0	6	16
601 - 800	10	0	0	0	0	5	15
801 - 1000	7	0	0	0	0	6	13
1001 - 1200	5	0	0	0	0	4	9
1201 - 1400	2	0	0	0	0	6	8
1401 - 1600	2	0	0	0	0	11	13
1601 - 1800	2	0	0	0	0	7	9
1801 - 2000	3	0	0	1	0	5	9
2001 - 2200	3	0	0	0	0	16	19
2201 - 2400	4	0	0	1	0	18	23
2401 - 2600	3	0	0	0	0	18	21
2601 - 2800	2	0	0	0	0	19	21
2801 - 3000	3	0	0	0	0	8	11
> 3000	608	0	0	1	0	39	648
TOTALS	**664**	**0**	**0**	**5**	**1**	**175**	**845**

Civilian Patrol

Amount of Monthly Benefit	Type of Benefit: Retirement Normal	Retirement Early	Disability Normal	Disability Work-Related	Disability Long-Term	Survivor	Total Recipients
1 - 200	4	19	0	1	9	8	41
201 - 400	34	27	0	0	0	16	77
401 - 600	35	21	0	0	2	20	78
601 - 800	30	8	0	0	0	19	57
801 - 1000	43	6	0	0	0	14	63
1001 - 1200	33	1	0	0	0	13	47
1201 - 1400	41	2	0	0	0	11	54
1401 - 1600	53	0	0	0	0	15	68
1601 - 1800	53	0	0	0	0	5	58
1801 - 2000	58	0	0	0	0	6	64
2001 - 2200	41	0	0	1	0	5	47
2201 - 2400	51	0	0	1	0	1	53
2401 - 2600	39	0	0	0	0	2	41
2601 - 2800	36	0	0	0	0	1	37
2801 - 3000	26	0	0	0	0	1	27
> 3000	90	0	0	0	0	4	94
TOTALS	**667**	**84**	**0**	**3**	**11**	**141**	**906**

Schedule of Average Monthly Benefit Payments

MoDOT

By Years of Service

Retired In Fiscal Year		0 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41+
2004	**Average Benefit**	**$386**	**660**	**1,171**	**1,287**	**1,963**	**2,473**	**2,483**	**3,812**
2004	Average FAP	$3,034	2,512	2,869	2,613	2,888	3,546	3,689	4,707
2004	**Current Retirees**	**10**	**15**	**18**	**22**	**62**	**57**	**25**	**8**
2005	**Average Benefit**	**$436**	**493**	**900**	**1,226**	**2,179**	**2,273**	**2,657**	**3,598**
2005	Average FAP	$2,902	1,962	2,634	2,675	3,390	3,304	3,988	4,106
2005	**Current Retirees**	**10**	**17**	**17**	**9**	**49**	**22**	**19**	**6**
2006	**Average Benefit**	**$379**	**654**	**947**	**1,309**	**2,374**	**2,305**	**2,987**	**3,615**
2006	Average FAP	$3,109	2,396	2,748	2,933	3,415	3,238	4,093	4,086
2006	**Current Retirees**	**13**	**15**	**16**	**24**	**55**	**30**	**10**	**7**
2007	**Average Benefit**	**$292**	**550**	**863**	**1,292**	**2,437**	**2,702**	**2,922**	**3,356**
2007	Average FAP	$2,139	2,414	2,402	2,932	3,352	3,664	4,014	4,031
2007	**Current Retirees**	**22**	**24**	**19**	**30**	**66**	**37**	**14**	**6**
2008	**Average Benefit**	**$286**	**497**	**956**	**1,556**	**2,419**	**2,939**	**2,374**	**3,361**
2008	Average FAP	$2,274	2,402	2,995	3,392	3,435	3,917	3,513	4,463
2008	**Current Retirees**	**29**	**28**	**26**	**35**	**57**	**50**	**18**	**5**
2009	**Average Benefit**	**$315**	**634**	**1,049**	**1,798**	**2,434**	**2,815**	**3,156**	**3,436**
2009	Average FAP	$2,545	2,926	3,472	3,493	3,537	3,664	3,920	4,539
2009	**Current Retirees**	**28**	**17**	**15**	**41**	**43**	**45**	**16**	**5**
2010	**Average Benefit**	**$293**	**555**	**1,109**	**1,728**	**2,563**	**3,088**	**2,625**	**3,215**
2010	Average FAP	$2,388	2,535	3,356	3,511	3,657	3,953	4,015	4,008
2010	**Current Retirees**	**26**	**24**	**16**	**38**	**61**	**41**	**3**	**3**
2011	**Average Benefit**	**$317**	**568**	**943**	**1,868**	**2,790**	**3,164**	**2,968**	**3,777**
2011	Average FAP	$2,663	2,659	3,135	3,561	3,928	3,936	3,863	4,167
2011	**Current Retirees**	**21**	**35**	**23**	**45**	**66**	**36**	**6**	**3**
2012	**Average Benefit**	**$408**	**500**	**976**	**1,805**	**2,858**	**3,324**	**3,067**	**0**
2012	Average FAP	$2,945	2,769	3,432	3,529	4,219	4,276	4,179	0
2012	**Current Retirees**	**36**	**23**	**39**	**63**	**108**	**57**	**5**	**0**
2013	**Average Benefit**	**$303**	**555**	**1,092**	**1,787**	**2,875**	**3,017**	**3,777**	**2,272**
2013	Average FAP	$2,626	2,932	3,501	3,814	4,341	3,982	4,850	2,802
2013	**Current Retirees**	**36**	**36**	**46**	**68**	**99**	**27**	**3**	**1**

FAP = Final Average Pay

Schedule of Average Monthly Benefit Payments

Uniformed Patrol

By Years of Service

Retired In Fiscal Year		0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
2004	**Average Benefit**	**$716**	**499**	**1,814**	**0**	**3,979**	**4,844**	**5,170**	**5,786**
2004	Average FAP	$2,295	992	3,000	0	4,372	4,844	5,068	5,078
2004	**Current Retirees**	**1**	**1**	**1**	**0**	**8**	**8**	**5**	**1**
2005	**Average Benefit**	**$0**	**763**	**1,560**	**3,093**	**4,229**	**4,425**	**6,117**	**6,489**
2005	Average FAP	$0	2,386	2,772	3,870	4,965	4,856	5,362	5,158
2005	**Current Retirees**	**0**	**2**	**1**	**2**	**4**	**6**	**4**	**1**
2006	**Average Benefit**	**$0**	**0**	**1,587**	**0**	**3,920**	**4,770**	**5,426**	**0**
2006	Average FAP	$0	0	3,007	0	4,884	5,214	5,004	0
2006	**Current Retirees**	**0**	**0**	**2**	**0**	**6**	**10**	**1**	**0**
2007	**Average Benefit**	**$645**	**818**	**1,080**	**0**	**3,990**	**5,226**	**5,850**	**0**
2007	Average FAP	$2,292	2,260	2,475	0	5,287	5,761	5,514	0
2007	**Current Retirees**	**1**	**3**	**1**	**0**	**5**	**12**	**5**	**0**
2008	**Average Benefit**	**$524**	**0**	**2,009**	**0**	**4,650**	**4,761**	**5,335**	**0**
2008	Average FAP	$1,898	0	3,969	0	6,098	5,253	5,575	0
2008	**Current Retirees**	**1**	**0**	**1**	**0**	**5**	**10**	**3**	**0**
2009	**Average Benefit**	**$0**	**780**	**0**	**2,207**	**4,587**	**4,742**	**5,202**	**6,502**
2009	Average FAP	$0	2,557	0	3,711	6,140	5,741	5,565	5,974
2009	**Current Retirees**	**0**	**1**	**0**	**2**	**6**	**16**	**6**	**1**
2010	**Average Benefit**	**$0**	**950**	**1,300**	**0**	**4,241**	**5,657**	**6,904**	**0**
2010	Average FAP	$0	2,749	3,072	0	5,625	6,619	7,410	0
2010	**Current Retirees**	**0**	**3**	**1**	**0**	**7**	**9**	**1**	**0**
2011	**Average Benefit**	**$531**	**965**	**0**	**2,444**	**4,257**	**5,421**	**6,527**	**0**
2011	Average FAP	$2,245	3,051	0	4,595	6,107	6,366	6,746	0
2011	**Current Retirees**	**1**	**2**	**0**	**2**	**9**	**8**	**1**	**0**
2012	**Average Benefit**	**$0**	**606**	**0**	**2,607**	**4,213**	**5,216**	**0**	**0**
2012	Average FAP	$0	2,463	0	4,521	6,065	6,439	0	0
2012	**Current Retirees**	**0**	**1**	**0**	**2**	**10**	**17**	**0**	**0**
2013	**Average Benefit**	**$501**	**0**	**1,389**	**3,529**	**4,326**	**4,993**	**6,612**	**0**
2013	Average FAP	$2,316	0	3,917	6,507	6,473	6,505	7,510	0
2013	**Current Retirees**	**1**	**0**	**2**	**2**	**9**	**8**	**1**	**0**

FAP = Final Average Pay

Schedule of Average Monthly Benefit Payments

Civilian Patrol

By Years of Service

Retired In Fiscal Year		0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
2004	**Average Benefit**	**$268**	**476**	**686**	**1,271**	**1,763**	**2,242**	**2,375**	**3,706**
2004	Average FAP	$1,985	2,055	2,025	2,353	2,768	3,057	3,440	5,259
2004	**Current Retirees**	**2**	**4**	**2**	**4**	**10**	**7**	**6**	**1**
2005	**Average Benefit**	**$262**	**449**	**816**	**1,146**	**2,795**	**3,179**	**2,077**	**3,985**
2005	Average FAP	$1,298	1,841	2,240	1,780	3,285	4,044	2,522	4,422
2005	**Current Retirees**	**2**	**2**	**3**	**5**	**7**	**8**	**1**	**1**
2006	**Average Benefit**	**$181**	**512**	**710**	**1,134**	**2,588**	**2,465**	**2,893**	**0**
2006	Average FAP	$2,080	2,066	2,003	2,537	3,343	3,439	3,235	0
2006	**Current Retirees**	**4**	**5**	**2**	**11**	**7**	**12**	**2**	**0**
2007	**Average Benefit**	**$306**	**520**	**604**	**1,052**	**2,409**	**2,308**	**2,214**	**0**
2007	Average FAP	$1,853	1,924	2,082	2,491	3,600	3,023	2,868	0
2007	**Current Retirees**	**5**	**5**	**5**	**6**	**8**	**13**	**2**	**0**
2008	**Average Benefit**	**$255**	**601**	**840**	**1,135**	**1,798**	**2,888**	**4,005**	**0**
2008	Average FAP	$2,186	2,736	2,551	2,658	2,753	3,796	4,151	0
2008	**Current Retirees**	**6**	**6**	**7**	**5**	**8**	**11**	**1**	**0**
2009	**Average Benefit**	**$221**	**360**	**596**	**0**	**2,534**	**2,548**	**2,318**	**2,299**
2009	Average FAP	$2,090	1,874	2,135	0	3,690	3,333	2,865	2,679
2009	**Current Retirees**	**4**	**6**	**3**	**0**	**11**	**9**	**3**	**2**
2010	**Average Benefit**	**$268**	**434**	**1,037**	**1,176**	**2,821**	**2,304**	**4,277**	**0**
2010	Average FAP	$2,285	2,124	3,091	2,625	4,106	3,188	5,179	0
2010	**Current Retirees**	**8**	**3**	**5**	**8**	**5**	**3**	**2**	**0**
2011	**Average Benefit**	**$314**	**511**	**781**	**1,888**	**2,652**	**2,786**	**0**	**0**
2011	Average FAP	$2,526	2,343	2,469	3,495	4,034	3,843	0	0
2011	**Current Retirees**	**4**	**8**	**6**	**12**	**14**	**8**	**0**	**0**
2012	**Average Benefit**	**$262**	**477**	**1,088**	**1,645**	**2,496**	**2,759**	**0**	**0**
2012	Average FAP	$2,136	2,289	3,501	3,115	3,690	3,458	0	0
2012	**Current Retirees**	**8**	**6**	**4**	**8**	**16**	**6**	**0**	**0**
2013	**Average Benefit**	**$310**	**485**	**880**	**1,793**	**2,308**	**2,646**	**0**	**0**
2013	Average FAP	$2,723	2,551	2,888	3,498	3,359	4,003	0	0
2013	**Current Retirees**	**13**	**9**	**7**	**10**	**9**	**6**	**0**	**0**

FAP = Final Average Pay

Schedule of Average Monthly Benefit Payments

MPERS

By Years of Service

Retired In Fiscal Year		0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
2006	**Average Benefit**	**$0**	**0**	**0**	**0**	**0**	**3,502**	**0**	**0**
2006	Average FAP	$0	0	0	0	0	4,178	0	0
2006	**Current Retirees**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
2007	**Average Benefit**	**$0**	**0**	**1,153**	**0**	**0**	**0**	**0**	**0**
2007	Average FAP	$0	0	3,081	0	0	0	0	0
2007	**Current Retirees**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
2009	**Average Benefit**	**$0**	**0**	**0**	**0**	**0**	**4,569**	**0**	**7,759**
2009	Average FAP	$0	0	0	0	0	5,922	0	9,989
2009	**Current Retirees**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
2012	**Average Benefit**	**$0**	**0**	**0**	**0**	**4,639**	**0**	**0**	**0**
2012	Average FAP	$0	0	0	0	7,087	0	0	0
2012	**Current Retirees**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**
2013	**Average Benefit**	**$0**	**0**	**0**	**0**	**0**	**9,491**	**0**	**0**
2013	Average FAP	$0	0	0	0	0	11,108	0	0
2013	**Current Retirees**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**

Note: There were no retirements during the years not shown above.

FAP = Final Average Pay

Active Member Data

Schedule of Participating Employers

	MoDOT		Patrol		MPERS		Total	
	Employees	**%**	**Employees**	**%**	**Employees**	**%**	**Employees**	**%**
2004	6,848	76.07	2,143	23.81	11	0.12	9,002	100
2005	6,980	76.15	2,174	23.72	12	0.13	9,166	100
2006	6,839	75.91	2,159	23.96	12	0.13	9,010	100
2007	6,459	74.76	2,168	25.10	12	0.14	8,639	100
2008	6,376	74.30	2,192	25.55	13	0.15	8,581	100
2009	6,601	74.90	2,199	24.95	13	0.15	8,813	100
2010	6,164	73.21	2,243	26.64	13	0.15	8,420	100
2011	5,796	71.03	2,350	28.80	14	0.17	8,160	100
2012	5,093	68.42	2,337	31.39	14	0.19	7,444	100
2013	4,985	67.95	2,336	31.84	15	0.21	7,336	100

Data for this chart is as of June 30, 2013.

Active Member Data
For the Year Ended June 30, 2013

By Age

Closed Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21 - 25	0	0	0	0	0
26 - 30	0	0	0	0	0
31 - 35	82	61	11	9	1
36 - 40	420	267	36	117	0
41 - 45	827	511	72	239	5
46 - 50	955	651	123	181	0
51 - 55	838	610	114	112	2
56 - 60	376	277	65	34	0
61 - 65	113	80	33	0	0
66+	16	11	5	0	0
Total	**3,627**	**2,468**	**459**	**692**	**8**
Average Age		**48**	**50**	**45**	**44**

Year 2000 Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21 - 25	81	44	10	27	0
26 - 30	491	288	79	124	0
31 - 35	656	412	101	142	1
36 - 40	491	343	63	83	2
41 - 45	387	297	68	21	1
46 - 50	337	268	60	8	1
51 - 55	316	258	57	1	0
56 - 60	208	169	38	1	0
61 - 65	64	46	18	0	0
66+	19	9	10	0	0
Total	**3,050**	**2,134**	**504**	**407**	**5**
Average Age		**41**	**41**	**32**	**40**

Year 2000 Plan - 2011 Tier

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	8	8	0	0	0
21 - 25	196	87	48	61	0
26 - 30	142	64	40	37	1
31 - 35	73	51	12	10	0
36 - 40	65	48	12	5	0
41 - 45	59	41	16	2	0
46 - 50	50	37	12	1	0
51 - 55	36	27	8	0	1
56 - 60	21	15	6	0	0
61 - 65	7	4	3	0	0
66+	2	1	1	0	0
Total	**659**	**383**	**158**	**116**	**2**
Average Age		**35**	**33**	**26**	**41**

Active Member Data
For the Year Ended June 30, 2013

By Years of Service

Closed Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
01 - 05	1	0	0	1	0
06 - 10	11	6	4	1	0
11 - 15	778	584	96	96	2
16 - 20	1,303	822	161	316	4
21 - 25	810	571	99	140	0
26 - 30	569	402	65	101	1
31 - 35	118	60	28	29	1
36 - 40	35	23	4	8	0
41 - 45	2	0	2	0	0
46+	0	0	0	0	0
Total	**3,627**	**2,468**	**459**	**692**	**8**
Average Service		**20**	**21**	**20**	**20**

Year 2000 Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	57	47	9	1	0
01 - 05	919	604	169	144	2
06 - 10	1,482	1,050	231	199	2
11 - 15	584	426	94	63	1
16 - 20	6	5	1	0	0
21 - 25	2	2	0	0	0
26 - 30	0	0	0	0	0
31 - 35	0	0	0	0	0
36 - 40	0	0	0	0	0
41 - 45	0	0	0	0	0
46+	0	0	0	0	0
Total	**3,050**	**2,134**	**504**	**407**	**5**
Average Service		**7**	**7**	**7**	**7**

Year 2000 Plan - 2011 Tier

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	482	370	74	36	2
01 - 05	177	13	84	80	0
06 - 10	0	0	0	0	0
11 - 15	0	0	0	0	0
16 - 20	0	0	0	0	0
21 - 25	0	0	0	0	0
26 - 30	0	0	0	0	0
31 - 35	0	0	0	0	0
36 - 40	0	0	0	0	0
41 - 45	0	0	0	0	0
46+	0	0	0	0	0
Total	**659**	**383**	**158**	**116**	**2**
Average Service		**0**	**1**	**1**	**0**

Terminated Vested Member Data

For the Year Ended June 30, 2013

By Age

Closed Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21 - 25	0	0	0	0	0
26 - 30	0	0	0	0	0
31 - 35	41	33	7	1	0
36 - 40	196	154	25	16	1
41 - 45	365	266	30	69	0
46 - 50	437	347	46	44	0
51 - 55	403	344	46	13	0
56 - 60	158	138	20	0	0
61 - 65	29	25	4	0	0
66+	1	1	0	0	0
Total	**1,630**	**1,308**	**178**	**143**	**1**
Average Age		**48**	**48**	**44**	**36**

Year 2000 Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21 - 25	1	1	0	0	0
26 - 30	49	40	8	1	0
31 - 35	130	105	17	7	1
36 - 40	120	104	9	7	0
41 - 45	83	75	6	2	0
46 - 50	72	63	8	1	0
51 - 55	53	50	3	0	0
56 - 60	15	13	2	0	0
61 - 65	0	0	0	0	0
66+	0	0	0	0	0
Total	**523**	**451**	**53**	**18**	**1**
Average Age		**40**	**38**	**36**	**31**

Year 2000 Plan - 2011 Tier

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21 - 25	0	0	0	0	0
26 - 30	0	0	0	0	0
31 - 35	0	0	0	0	0
36 - 40	0	0	0	0	0
41 - 45	0	0	0	0	0
46 - 50	0	0	0	0	0
51 - 55	0	0	0	0	0
56 - 60	0	0	0	0	0
61 - 65	0	0	0	0	0
66+	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
Average Age	**0**	**0**	**0**	**0**	**0**

Terminated Vested Member Data
For the Year Ended June 30, 2013

By Years of Service

Closed Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
01 - 05	217	162	29	26	0
06 - 10	732	574	77	80	1
11 - 15	424	342	54	28	0
16 - 20	187	168	11	8	0
21 - 25	62	55	6	1	0
26 - 30	8	7	1	0	0
31 - 35	0	0	0	0	0
36 - 40	0	0	0	0	0
41 - 45	0	0	0	0	0
46+	0	0	0	0	0
Total	**1,630**	**1,308**	**178**	**143**	**1**
Average Service		**11**	**10**	**9**	**8**

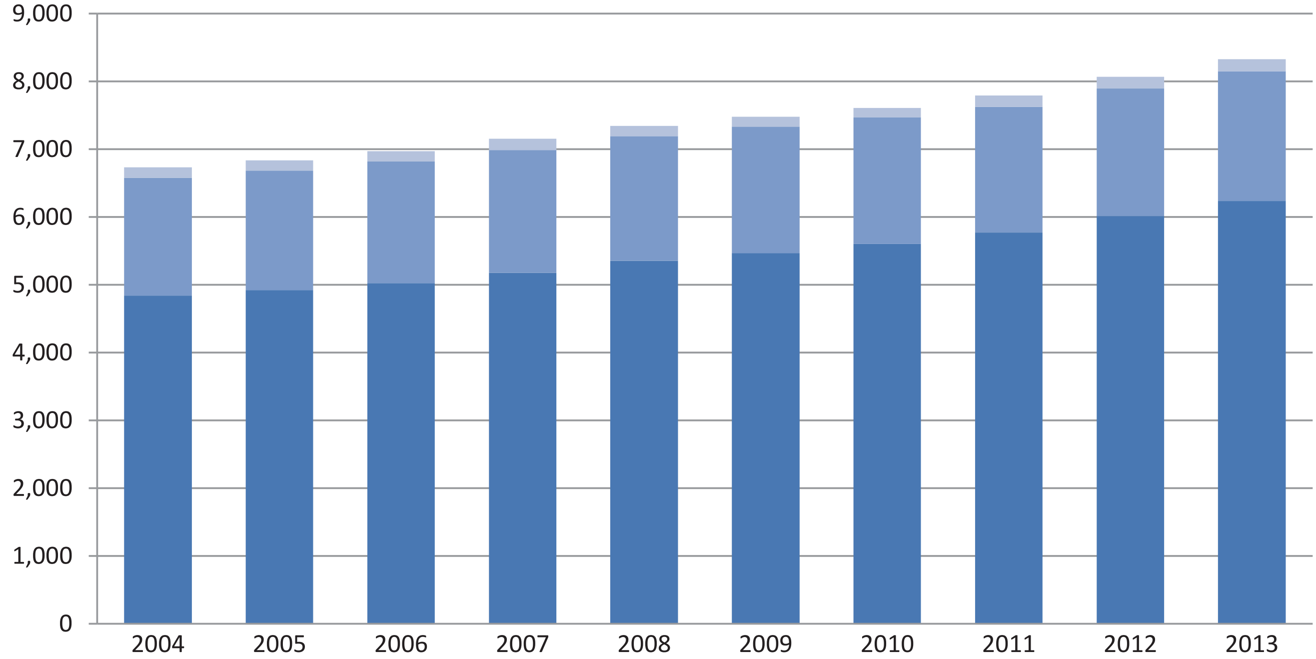
Year 2000 Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
01 - 05	133	110	19	3	1
06 - 10	354	309	30	15	0
11 - 15	35	31	4	0	0
16 - 20	1	1	0	0	0
21 - 25	0	0	0	0	0
26 - 30	0	0	0	0	0
31 - 35	0	0	0	0	0
36 - 40	0	0	0	0	0
41 - 45	0	0	0	0	0
46+	0	0	0	0	0
Total	**523**	**451**	**53**	**18**	**1**
Average Service		**7**	**7**	**7**	**5**

Year 2000 Plan - 2011 Tier

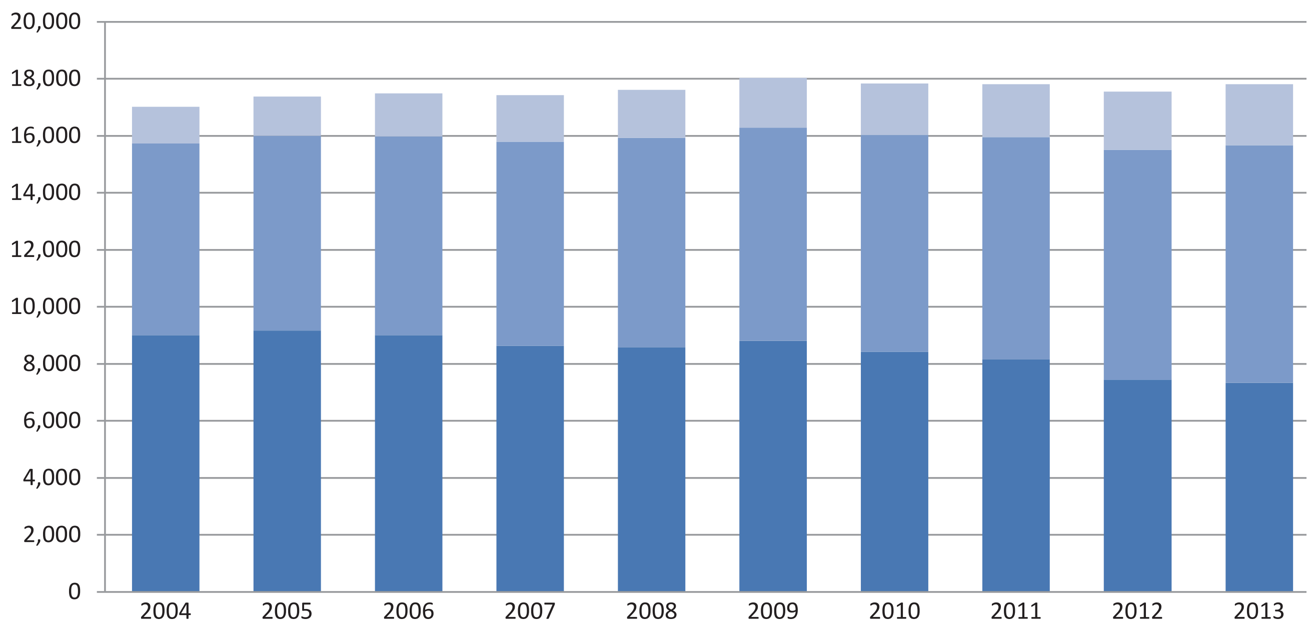
Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
01 - 05	0	0	0	0	0
06 - 10	0	0	0	0	0
11 - 15	0	0	0	0	0
16 - 20	0	0	0	0	0
21 - 25	0	0	0	0	0
26 - 30	0	0	0	0	0
31 - 35	0	0	0	0	0
36 - 40	0	0	0	0	0
41 - 45	0	0	0	0	0
46+	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
Average Service		**0**	**0**	**0**	**0**

Benefit Recipients



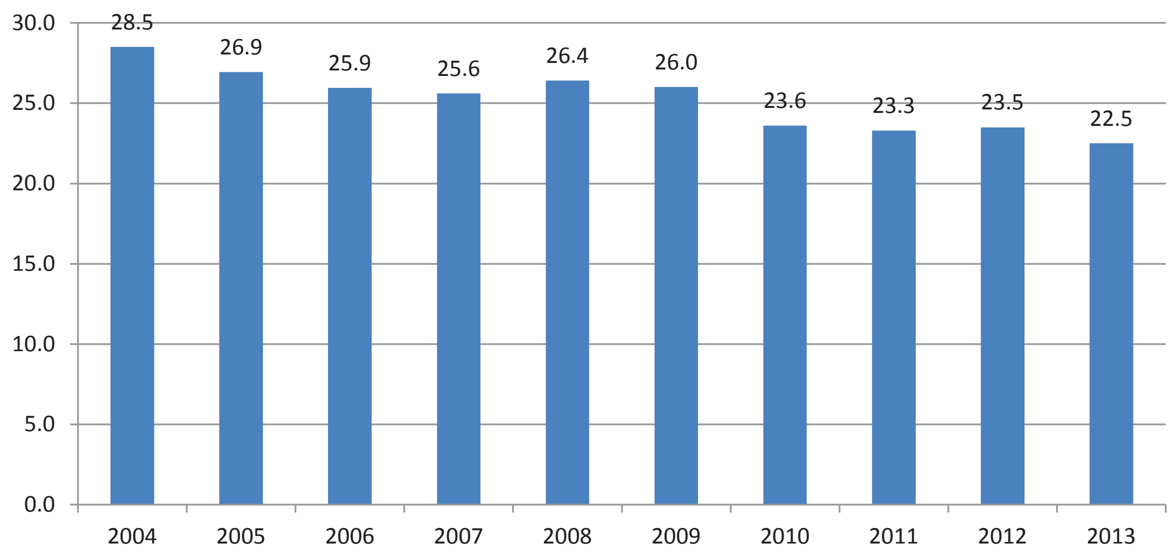
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Disabilities	153	153	154	166	155	146	142	166	175	178
Survivors	1,735	1,762	1,793	1,812	1,833	1,863	1,862	1,855	1,880	1,914
Retirees	4,843	4,920	5,024	5,177	5,357	5,471	5,606	5,771	6,013	6,234

Membership Distribution

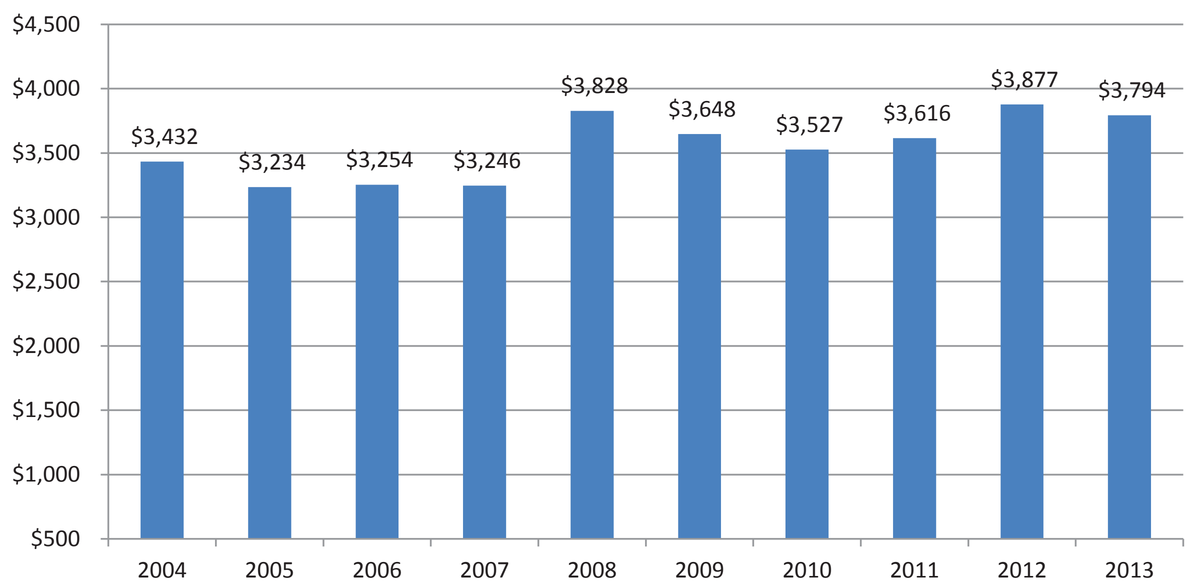


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Term Vested Members	1,285	1,370	1,502	1,634	1,689	1,737	1,799	1,864	2,038	2,153
Benefit Recipients	6,731	6,835	6971	7,155	7,345	7,480	7,610	7,792	8,068	8,326
Active Members	9,002	9,166	9,010	8,639	8,581	8,813	8,420	8,160	7,444	7,336

Average Years of Service for New Retirees

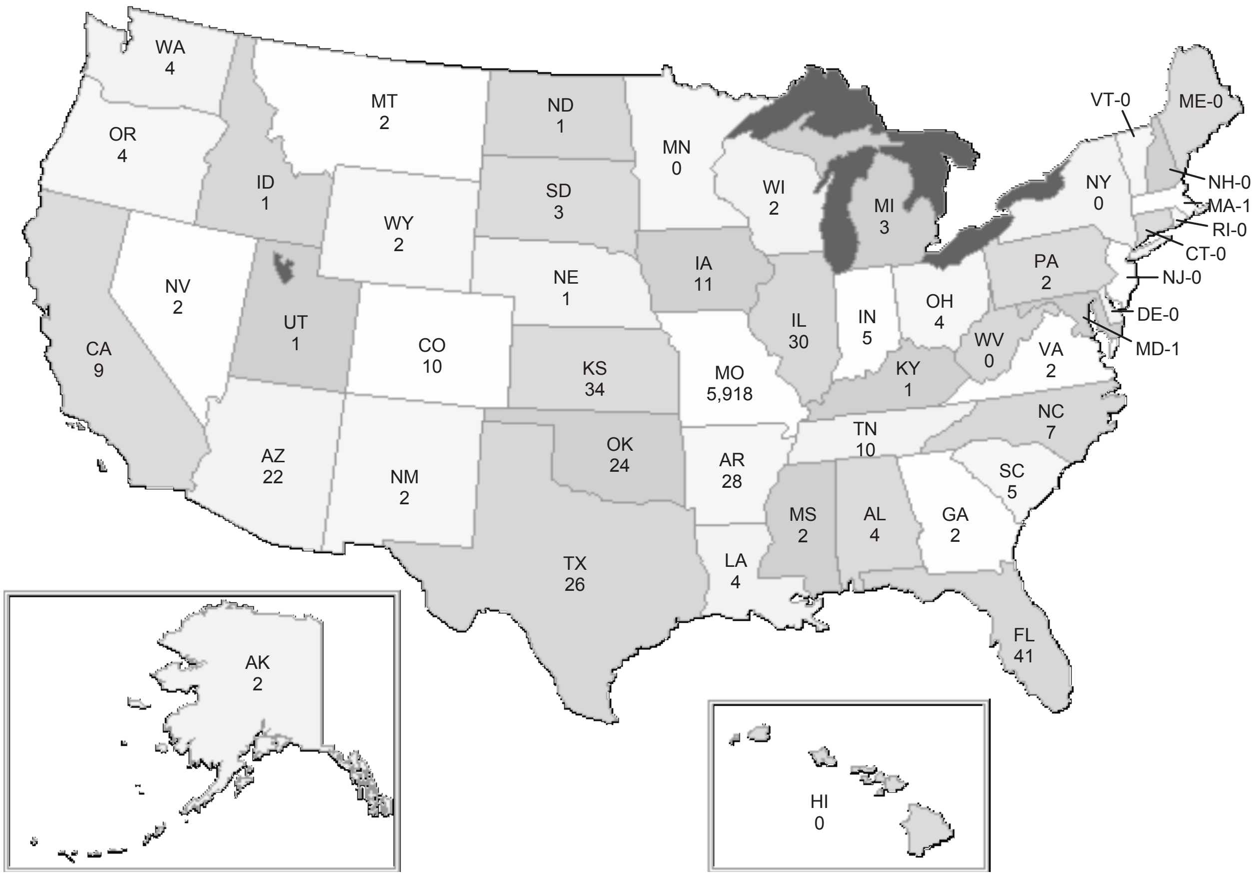


Final Average Pay for New Retirees



Location of MPERS Retirees
For the Year Ended June 30, 2013

This map represents the demographic distribution of retirees by state.



1 Retiree resides in England

Notes