



Missouri Department of Transportation and
Highway Patrol Employees' Retirement System

A Component Unit of the State of Missouri

2011

Susie Dahl, Executive Director
1913 William Street, PO Box 1930
Jefferson City, MO 65102-1930
(800) 270-1271, (573) 298-6080



THE
POWER
OF
PENSIONS

Comprehensive Annual Financial Report
For the Fiscal Year Ended June 30, 2011

Notes

MoDOT and Patrol Employees' Retirement System



Mailing Address

PO Box 1930
Jefferson City, Missouri 65102-1930

Street Address

1913 William Street
Jefferson City, Missouri 65109

Phone Numbers

Main Line
(573) 298-6080

Toll Free
(800) 270-1271

Office Directory
(573) 298-6081

Fax Numbers

Administrative
(573) 526-5895

Benefits
(573) 522-6111

E-Mail Address

mpers@modot.mo.gov

WebSite

www.mpers.org

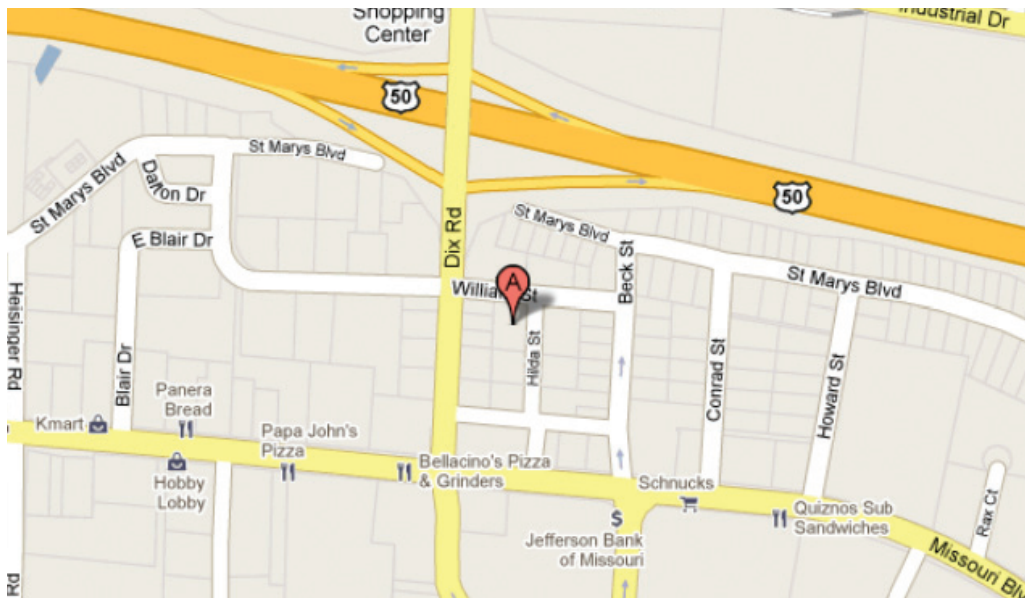


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Traditional defined benefit pensions are a “high five” for the U.S. economy:

- Investing \$5.35 trillion in assets for the future.
- Keeping some 5 million retired Americans out of poverty.
- Supporting 5.3 million American jobs.
- Delivering retirement income at nearly 50% lower cost than individual defined contribution retirement accounts.

When retirees have a stable and secure pension check, they don't stick it under the mattress. They spend that income on goods and services in their local communities, leaving a substantial economic footprint from coast to coast. That regular spending is critically important today as the economy struggles to recover.

In contrast, retirees without a pension may be fearful to spend, given the impact of the market crash on individual retirement accounts or because they worry about outliving their savings.



**Averages for a
New MPERS Retiree**

Average Retirement Age
57.5 years

Average Years of Service
23.3 years

Average Final Average Pay
\$3,616

Average Monthly Benefit
\$1,985

Average Annual Benefit
\$23,820

Source of Information:

National Institute on Retirement Security (NIRS) - Testimony before a US Senate Committee Hearing “The Power of Pensions: Building a Strong Middle Class and Strong Economy” July 12, 2011

Certificate of Achievement for Excellence in Financial Reporting

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, 2010

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



Linda C. Davidson

President

Jeffrey R. Emery

Executive Director

Public Pension Coordinating Council Award



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2010***

Presented to

***Missouri Department of Transportation & 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)

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle
Program Administrator

Letter of Transmittal

Susie Dahl
Executive Director



MoDOT & Patrol
Employees' Retirement System

Pam Henry
Assistant Executive Director

December 16, 2011

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, 2011. 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 \$1,985, which equates to \$23,820 per year. Given the increasing cost of living, this amount will not provide a life of luxury for the retiree. However, this monthly benefit 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 \$1.7 billion in benefit payments to our members. In the case of MPERS, most of the retirees and beneficiaries reside in Missouri, reinvesting their retirement dollars on housing, goods and services. In turn, the local economies benefit from these expenditures, which helps to fuel the economy creating jobs. In Missouri alone, retiree expenditures stemming from state and local pension plan benefits supported 28,054 jobs.

It is easy to see that pensions have a long-term positive impact on our economy and our members, thus providing the theme for this year's annual report, "The Power of Pensions." Throughout this report, you will see statistics highlighting the positive impact that public pensions have on the overall economy. We would like to acknowledge the National Institute on Retirement Security as our source for this information and congratulate them for the meaningful research they continue to provide to set the record straight about the positive impact of public pensions.

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

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@modot.mo.gov

Letter of Transmittal

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 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 2011 Highlights:

Legislation passed during the 2011 legislative session (SS for SCS for HB282) allows the transfer of funds associated with service that is transferred between MPERS and the Missouri State Employees' Retirement System (MOSERS). Prior to legislation being passed, there was a reciprocal service arrangement between MPERS and MOSERS that transfers the liability from one system to the other when covered employment changes. However, no assets were transferred. This legislation authorized the transfer of funds accumulated for the member's service liability from the system where the service was earned. This practice will reduce the receiving system's financial loss associated with taking on the additional service liability.

Implementing the pension reform legislation (2011 Tier) and transitioning into the final stages of our multi-year technology project were at the forefront of activity for fiscal year 2011.

In 2010, Governor Nixon called a Special Session and HB 1 was passed adding a new contributory tier to our current Year 2000 Plan. This new "2011 Tier" affects only employees hired for the first time, in a benefit eligible position, on or after January 1, 2011. As of June 30, 2011, the 2011 Tier has 87 members. Some of the notable changes in the 2011 Tier include: (1) employees will contribute 4% of pay for retirement benefits, (2) vesting is changed from 5 to 10 years of creditable service, and (3) "Rule of 80" increases to "Rule of 90." For members not eligible under the "Rule of 90," normal retirement age will be 67. The provisions for BackDROP and subsidized service purchases are not available in the 2011 Tier. The pension reform legislation required extensive modifications to our pension administration system, which included accepting, managing and refunding member contributions along with administering new vesting and eligibility requirements.

In addition to the pension reform legislation, during the 2010 Regular Session, House Bill 1868 was enacted creating a Division of Water Patrol within the Missouri State Highway Patrol effective January 1, 2011. Water Patrol employees in the Department of Public Safety had the option of transferring their service and membership from MOSERS to MPERS. For each employee electing to transfer his/her membership and creditable service, MOSERS paid MPERS, by June 30, 2011, an amount actuarially determined to equal the liability at the time of the transfer. Membership for those electing to transfer to MPERS began July 1, 2011.

One of the most anticipated features of our new Pension Administration System is an online member self-service portal. This feature allows members to update personal information online, submit electronic forms, view service history, prepare benefit estimates, and check their monthly benefit payment information. The new online feature was rolled out with our redesigned website in September 2010. During FY2011, over 2,500 members created a login to myMPERS Secure Member Access and began utilizing the expanded functionality.

Letter of Transmittal

Business Continuity Plan Implementation:

In early 2011, MPERS, in cooperation with Levi, Ray and Shoup (LRS), the technology vendor for MPERS' Pension Administration System, completed our Business Continuity Plan and conducted our first full test via a "mock event." The test demonstrated that MPERS could successfully process and execute our member payroll remotely through LRS in Springfield, Illinois, in the event a disruptive event took down our facility in Jefferson City. The Business Continuity Plan addresses the worst case scenario where MPERS is completely displaced from our facility, our software system and connectivity fail, or staff resources are severely limited. Our most critical functions can be duplicated remotely using our electronic files that are backed-up on a daily basis.

In addition, MPERS has developed a Disaster Plan setting forth in detail MPERS' disaster preparedness (pre-planning, resource identification, testing procedures), response (detailed steps to assure safety of employees and visitors, actions to limit and assess damages and re-establish operations), and recovery (steps to return to normal operations and to restore facilities). Together, the Disaster Plan and the Business Continuity Plan provide a resource guide to manage disruptive events.

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, 2011, the funded ratio of MPERS, which covers 17,829 participants, increased from 42.2% to 43.3%. Although System assets recognized a 21.8% rate of return on a market basis, the fund recognized a 6.5% rate of return on an actuarial basis after accounting for the smoothing of this year's gain and the prior gains and losses. Overall, there was an experience gain of \$71 million. This gain was made up of a \$24 million investment loss and a \$95 million liability gain.

Each year an independent actuarial firm conducts an annual 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, 2011, 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 in accordance with the 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 under funding 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 funding policy:

- The total contribution is based on the Plan's 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.

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 determine 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, 2011, MPERS' investment portfolio had a total market value of \$1.5 billion representing a return of 21.8% for the fiscal year. The portfolio outperformed the policy benchmark return by 5.1% and generated the highest return since fiscal year 1986. During the course of the year, MPERS' Board of Trustees completed a review of the current

Letter of Transmittal

asset allocation to ensure the strategies currently utilized are appropriate relative to the system's return objectives and tolerance for risk. With the help of outside consultants, each and every facet of the asset allocation process was reviewed and a number of changes were approved going forward. The Investment Section contains additional information on the asset allocation changes (as well as MPERS' investment performance). As we move forward with implementing the asset allocation, the primary focus will be to gradually shift assets away from publicly traded stocks and increase exposures to traditional fixed income, real estate, and private equity structures.

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 FY2010 CAFR. This was the sixth 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 seventh 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. At the same time, the national and local economies benefit from the regular expenditures of retirees. "The Power of Pensions" goes way beyond providing a monthly benefit to our retirees.

Respectfully submitted,



Susie Dahl
Executive Director



Roger Stottlemyre
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:



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



Sue Cox
Board Vice Chair
MoDOT Employees' Representative
Elected by MoDOT Employees
Term Expires 7-1-2014



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



Rudolph E. Farber
Commission Member
Highways & Transportation
Commissioner
Term Expires 3-1-2013



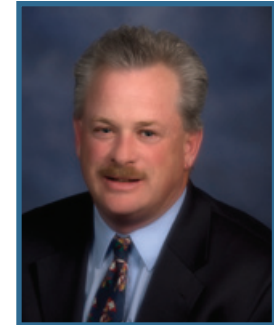
Major J. Bret Johnson
MSHP Employees' Representative
Elected by MSHP Employees
Term Expires 7-1-2014



Representative Caleb Jones
State Representative
District 117
Appointed by
Speaker of the House



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



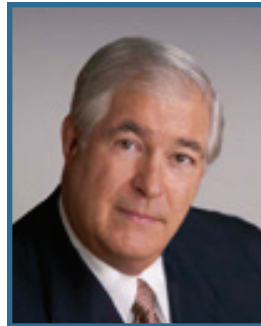
Kevin Keith
Director of the Missouri Department of Transportation
Ex-Officio Member



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



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



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



Administrative Organization



Susie Dahl, CRC – Executive Director

Keith Thornburg – *General Counsel*

Jennifer Even – *Senior Financial Officer*

Lois Wankum – *Executive Assistant*

Leigh Love – *Office Assistant*



Pam Henry – Assistant Executive Director

Mariel Hale – *Senior Benefit Specialist*

Mary Jordan – *Senior Benefit Specialist*

Bev Wilson – *Senior Benefit Specialist*

Angel Backes – *Intermediate Account Technician*

Julie Berhorst – *Intermediate Account Technician*

Tammy Kroll – *Account Technician*



Larry Krummen, CFA – Chief Investment Officer

Jennifer Johnson – *Senior Investment Officer*

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 senior 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 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.

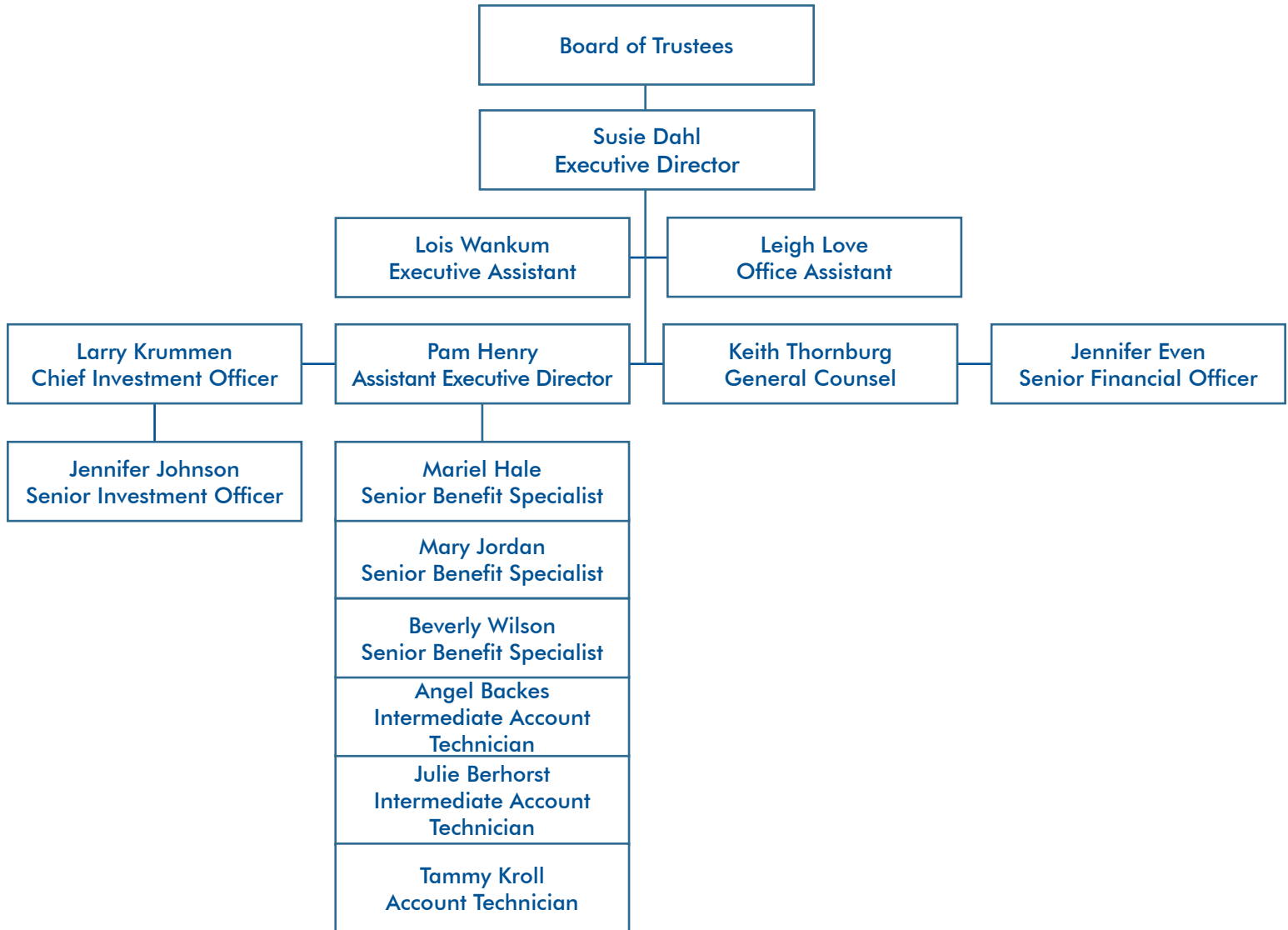
The Benefits unit is responsible for contact with the membership regarding the benefit programs administered by MPERS, which include retirement and disability. The benefits staff is responsible for preparing and delivering the pre-retirement and benefit basics seminars in addition to assisting with the 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 fourteen 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 36 and 37 in the Investment Section for the Schedule of Investment Expenses and Brokerage Commissions for the investment professionals.

Actuary

Gabriel, Roeder, Smith & Company
Southfield, Michigan

Legislative Consultant

Michael G. Winter Consultants, LLC
Jefferson City, Missouri

Auditor

Williams-Keepers, LLC
Jefferson City, Missouri

Master Trustee/Custodian

The Northern Trust Company
Chicago, Illinois

Business Consultant

PAS Strategies
New York, New York

Risk Management/Insurance Consultant

Charlesworth Benefits
Overland Park, Kansas

The Standard Insurance Company
Portland, Oregon

Investment Consultant

Summit Strategies Group
St. Louis, Missouri

Governance Consultant

Cortex Applied Research Inc.
Toronto Ontario

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
Algert Coldiron Investments (ACI)	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
Black River	Minnetonka, Minnesota
Brevan Howard	New York, New York
Bridgewater Associates.....	Westport, Connecticut
CBRE Investors	Baltimore, Maryland
Colony Capital.....	Los Angeles, California
Concordia.....	New York, New York
CQS Management	London England
CarVal Investors (CVI)	Minnetonka, Minnesota
Deephaven Capital Management	Minnetonka, Minnesota
EIF Management.....	Needham, Massachusetts
Enhanced Investment Technologies (INTECH).....	Palm Beach Gardens, Florida
GMO	Boston, Massachusetts
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
Natural Gas Partners.....	Houston, Texas
Och-Ziff Real Estate	New York, New York
Ospraie Management	New York, New York
Paulson and Co.	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 (Sheperd)	Milwaukee, Wisconsin
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
Vectis Healthcare	Boston, Massachusetts
Vicis Capital.....	New York, New York
WS Capital Management	Dallas, Texas
Western Asset Management Company	Pasadena, California

Notes



Having pension income can play a critical role in reducing the risk of poverty and hardship for older Americans. The rate of poverty for older households in 2006 without pension income was 6 times greater than for households with a pension.

The billions of dollars in savings for public assistance due to pensions are significant, given the fiscal pressures on government safety net programs across the country. More specifically, pension income received by nearly half of older American households in 2006 was associated with:

- 1.72 million fewer poor households and 2.97 million fewer near-poor households.
- 560,000 fewer households experiencing a food hardship.
- 380,000 fewer households experiencing a shelter hardship.
- 320,000 fewer households experiencing a health care hardship.

Defined benefit pensions are the most economically efficient retirement plans available. Due to their group nature, pensions can deliver the same level of retirement income as an individual 401(k) type savings account at half the cost.



Number of MPERS Benefit Recipients
Retirees 5,771
Survivors/Beneficiaries 1,855
Total Dollars Paid in Benefits in FY2011 \$202,153,768

Sources of Information:

National Institute on Retirement Security (NIRS) - Testimony before a US Senate Committee Hearing "The Power of Pensions: Building a Strong Middle Class and Strong Economy" July 12, 2011

Almeida, B. and F. Porell. 2009. "The Pension Factor: Assessing the Role of Defined Benefit Plans in Reducing Elder Hardships." Washington, DC: National Institute on Retirement Security

Independent Auditors' Report



2005 West Broadway, Ste. 100, Columbia, MO 65203
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

www.williamskeepers.com

INDEPENDENT AUDITORS' REPORT

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

We have audited the accompanying statements of plan net assets of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (the System) as of June 30, 2011 and 2010, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the System's management. 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinions.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System at June 30, 2011 and 2010, and the changes in plan net assets for the years then ended, in conformity with U.S. generally accepted accounting principles.

The management's discussion and analysis on pages 2 through 5 and the schedules of funding progress and employer contributions on pages 22 and 23 are not a required part of the basic financial statements but are supplementary information required by the Governmental Accounting Standards Board. The required supplementary information is the responsibility of management of the System. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audits were made for the purpose of forming an opinion on the financial statements taken as a whole. The supplementary information included on pages 24 through 26 is presented for purposes of additional analysis and is not a required part of the basic financial statements of the System. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken 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 express no opinion on them.

Williams - Keepers LLC

December 16, 2011

American Institute of Certified Public Accountants
Missouri Society of Certified Public Accountants
PKF North American Network

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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, 2011 and 2010. 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 Assets* includes all the System's assets and liabilities, with the difference between the two reported as net assets.
- *The Statement of Changes in Plan Net Assets* 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 \$243 million, reported as the "change in net assets." This is primarily a result of net appreciation in the fair value of investments for the year ended June 30, 2011. With this net increase in value in FY11, the funded status of the plan showed an increase of 1.06%.

The following schedules present summarized comparative data from the System's financial statements for the fiscal years ended June 30, 2011, 2010, and 2009. Following each schedule is a brief summary providing explanation and analyses of the major reasons for changes in the condensed financial statements.

Management's Discussion and Analysis

Summarized Comparative Statements of Plan Net Assets

	As of June 30, 2011	As of June 30, 2010	As of June 30, 2009	% Change 2011/2010	% Change 2010/2009
Cash and Receivables	\$ 37,735,045	\$ 90,675,162	\$ 9,940,482	-58%	812%
Investments	1,548,229,721	1,299,366,338	1,219,197,339	19%	7%
Invested Securities	60,133,588	44,655,544	53,502,879	35%	-17%
Lending Collateral					
Capital Assets	3,287,289	3,276,526	1,659,247	0%	97%
Other Assets	6,794	5,155	8,535	32%	-40%
Total Assets	1,649,392,437	1,437,978,725	1,284,308,482	15%	12%
Accounts Payable	32,898,778	78,491,744	8,299,374	-58%	846%
OPEB Obligation	364,124	276,548	182,305	32%	52%
Securities Lending Collateral	60,339,959	45,986,723	54,692,943	31%	-16%
Long-Term Debt/Payable	108,900	506,400	0	-78%	100%
Total Liabilities	93,711,761	125,261,415	63,174,622	-25%	98%
Total Net Assets	\$1,555,680,676	\$1,312,717,310	\$1,221,133,860	19%	7%

The decrease in cash and receivables is primarily attributable to lower investment sales receivables as of June 30, 2011. Some fluctuations in this area are normal, based on investment activity. The increase from FY09 to FY10 is primarily attributable to higher investment sales receivables. The System was restructuring its investment portfolio to meet new target allocations.

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, 2011 is due to very favorable market conditions experienced during FY11. The FY11 investment return was 21.8%. Market conditions in FY10 reflected the start of more favorable conditions, as shown by the increase from the fair value amount of June 30, 2009 to that of June 30, 2010. The FY10 investment return was 12.91%. Detailed information regarding MPERS' investment portfolio is included in the Investment Section of this report.

Capital assets increased very slightly in FY11, due to the purchase of equipment in the normal course of business. The increase in capital assets from FY09 to FY10 can be attributed to the completion of the initial phase of the technology project MPERS has in progress. Costs associated with the project have been capitalized. All three modules of Phase I of the project have been fully implemented and are now depreciable.

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 FY10 to FY11 is due to the increase in the fair value of investments. The decrease in securities lending collateral from FY09 to FY10 is primarily due to a reduction in the lendable securities as MPERS increased its exposure to alternative investments. The corresponding securities lending collateral asset is valued at lower amounts at June 30, 2011, 2010 and 2009 due to the market value of the securities on loan being less than the par value. This is a residual effect of the liquidity crisis that was one aspect of the overall market downturn in FY09.

The decrease in accounts payable for FY11 is primarily attributable to lower investment purchases payable. Some fluctuations in this area are normal, based on investment activity. The large increase from FY09 to FY10 is primarily attributable to larger investment purchases payable. The System was restructuring its investment portfolio to meet new target allocations.

Management's Discussion and Analysis

The decrease in long-term debt/payable reflects the payment made on the obligation for the technology project. The increase in long-term debt/payable from FY09 to FY10 is due to the completion and capitalization of assets for the technology project. Remaining payments for the project will be made over the next two years. The amount shown at June 30, 2011 represents the payment amount for FY13.

The OPEB obligation of \$364,124 at June 30, 2011, \$276,548 at June 30, 2010, and \$182,305 at June 30, 2009 represents a liability recorded pursuant to GASB Statement No. 45, which was implemented in FY08. This liability reflects the system's provision of postemployment 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 MoDOT; therefore, assets have not been set aside. With this, the increases from FY10 to FY11 and from FY09 to FY10 are expected.

The System's combined net assets were \$1.556 billion at June 30, 2011, a \$243 million increase from the \$1.313 billion at June 30, 2010. This increase is an addition to the increase of the previous year, when net assets increased \$92 million from the June 30, 2009 amount of \$1.221 billion to the June 30, 2010 amount of \$1.313 billion.

Summarized Comparative Statements of Changes in Plan Net Assets

	Year Ended June 30, 2011	Year Ended June 30, 2010	Year Ended June 30, 2009	% Change 2011/2010	% Change 2010/2009
Contributions	\$ 168,130,790	\$ 124,476,706	\$ 123,043,301	35%	1%
Net Investment Income (Loss)	279,612,052	166,307,054	(426,265,311)	68%	-139%
Other Income	33,141	33,145	33,571	0%	-1%
Net Additions (Loss)	447,775,983	290,816,905	(303,188,439)	54%	-196%
Benefits	202,153,768	196,721,274	192,013,250	3%	2%
Administrative Expenses	2,658,849	2,512,181	2,339,501	6%	7%
Total Deductions	204,812,617	199,233,455	194,352,751	3%	3%
Change in Net Assets	242,963,366	91,583,450	(497,541,190)	165%	-118%
Net Assets-Beginning	1,312,717,310	1,221,133,860	1,718,675,050	7%	-29%
Net Assets-Ending	\$1,555,680,676	\$1,312,717,310	\$1,221,133,860	19%	7%

The main component of the changes in contributions to MPERS is employer contributions. In FY11, MPERS received a transfer of contributions from MOSERS in the amount of \$17,609,276, for Water Patrol member's service transferred. Also for FY11, the contribution rate for the non-uniformed Highway Patrol and MoDOT increased by 8.06%, and the contribution rate for the uniformed Highway Patrol increased by 9.58%, from the FY10 rates, therefore increasing the FY11 amount of employer contributions from the FY10 amount. For FY10, the contribution rate for the non-uniformed Highway Patrol and MoDOT increased by .68%, from the FY09 rate, therefore increasing the FY10 amount of employer contributions for that group from the FY09 amount.

Net investment income (loss), a primary component of plan additions, resulted in income of \$280 million for FY11. This income is in addition to the FY10 gain of \$166 million. The income represents a 21.8% return for the fiscal year ended June 30, 2011 which outperformed the policy benchmark by 5.1%. In comparison, the FY10 investment return was a 12.91%, which trailed the rate of return of the policy benchmark, but was slightly above the median in the peer universe comparison. 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 8.25%. Additional information regarding investments can be found in the *Investment Section* of this report.

Management's Discussion and Analysis

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

CURRENTLY KNOWN FACTS AND RECENT EVENTS

Based on the June 30, 2010 actuarial valuation, the Board of Trustees approved a change in the required state contribution, effective July 1, 2011. The rate applied to non-uniformed payroll (MoDOT, civilian patrol, and MPERS) will increase from 39.46% to 45.45%. The rate applied to uniformed patrol payroll will increase from 49.53% to 58.63%. This increase is a residual effect of the unfavorable investment returns in FY09 and FY08.

Based on the June 30, 2011 actuarial valuation, the Board of Trustees approved an increase in the required state contribution, effective July 1, 2012. The rate applied to non-uniformed payroll (MoDOT, civilian patrol, and MPERS) will increase from 45.45% to 50.92%. The rate applied to uniformed patrol payroll will decrease from 58.63% to 55.03%. The increase in the non-uniformed rate is due to the decrease in number of employees by MoDOT, thus causing a significant decrease in covered payroll dollars. The decrease in the uniformed patrol rate is due to the increase in number of employees from the transfer in of Water Patrol employees, as well as the transfer in of funds from MOSERS for their liability.

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

Statements of Plan Net Assets

As of June 30, 2011 and 2010

	2011	2010
ASSETS:		
Cash	\$ 34,434	\$ 210,007
Receivables		
Contributions	6,057,876	4,966,134
Accrued Interest and Income	3,374,809	3,264,452
Investment Sales	28,250,357	82,216,889
Other	17,569	17,680
Total Receivables	<u>37,700,611</u>	<u>90,465,155</u>
Investments, at Fair Value		
Stocks and Rights/Warrants	503,897,859	418,603,323
Government Obligations	94,892,144	40,164,929
Corporate Bonds	28,671,607	28,512,411
Real Estate	143,696,195	106,116,740
Mortgages and Asset-Backed Securities	146,951,071	103,112,077
Absolute Return	153,035,433	162,936,098
Tactical Fixed Income	81,495,581	75,793,208
Short-Term Investments	33,267,053	119,818,077
Venture Capital & Partnerships	362,322,778	244,309,475
Total Investments	<u>1,548,229,721</u>	<u>1,299,366,338</u>
Invested Securities Lending Collateral	60,133,588	44,655,544
Prepaid Expenses	6,794	5,155
Capital Assets		
Land	84,000	84,000
Building	581,619	581,619
Furniture, Equipment and Software	3,414,235	3,053,494
Accumulated Depreciation	(792,565)	(442,587)
Net Capital Assets	<u>3,287,289</u>	<u>3,276,526</u>
TOTAL ASSETS	1,649,392,437	1,437,978,725
LIABILITIES:		
Long-Term Payable	108,900	506,400
Short-Term Payable	397,500	393,300
Accounts Payable	1,559,815	2,061,181
OPEB Obligation	364,124	276,548
Security Lending Collateral	60,339,959	45,986,723
Investment Purchases	30,941,463	76,037,263
TOTAL LIABILITIES	93,711,761	125,261,415
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS	<u>\$1,555,680,676</u>	<u>\$1,312,717,310</u>

See accompanying Notes to the Financial Statements.

Statements of Changes in Plan Net Assets

For the Years Ended June 30, 2011 and 2010

	2011	2010
<u>ADDITIONS:</u>		
Contributions-Employer	\$ 150,022,169	\$ 124,052,534
Contributions-Employee	45,361	0
Contributions-Service Transfers from Other System	17,609,276	0
Contributions-Other	453,984	424,172
Total Contributions	<u>168,130,790</u>	<u>124,476,706</u>
Investment Income from Investing Activities		
Net Appreciation in Fair Value of Investments	271,818,669	163,585,646
Interest and Dividends	26,222,245	20,810,730
Less: Investment Expenses	<u>(18,538,828)</u>	<u>(18,067,443)</u>
Net Investment Income	279,502,086	166,328,933
Income from Securities Lending Activities		
Security Lending Gross Income	191,719	169,460
Less: Securities Lending Expenses	<u>(81,753)</u>	<u>(191,339)</u>
Net Income (Loss) from Securities Lending Activities	109,966	(21,879)
Other Income	<u>\$33,141</u>	<u>\$33,145</u>
NET ADDITIONS	447,775,983	290,816,905
<u>DEDUCTIONS:</u>		
Monthly Benefits	202,153,768	196,721,274
Administrative Expenses	<u>2,658,849</u>	<u>2,512,181</u>
TOTAL DEDUCTIONS	204,812,617	199,233,455
NET INCREASE	242,963,366	91,583,450
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS		
Beginning of Year	<u>1,312,717,310</u>	<u>1,221,133,860</u>
End of Year	<u>\$1,555,680,676</u>	<u>\$1,312,717,310</u>

See accompanying Notes to the Financial Statements.

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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) - 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.

As of July 1, 2011, Water Patrol employees are now members of MPERS. Service credit for these employees was transferred on June 30 along with \$17,609,276 for the corresponding liability. 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 for the first time on or after January 1, 2011 are eligible for membership in the Year 2000 Plan's 2011 Tier.

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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

	Closed	2011 Year 2000	2011 Tier	2011 Total	2010 Total
Retirees, Beneficiaries, and Disabilities					
Currently Receiving Benefits	5,076	2,716	0	7,792	7,610
Terminated Employees Entitled to But Not Yet Receiving Benefits	1,578	286	0	1,864	1,799
Active Employees					
Vested	4,398	2,170	0	6,568	6,535
Non-Vested	0	1,505	87	1,592	1,885
Total Membership	11,052	6,677	87	17,816	17,829

Closed Plan Description

Employees covered by the Closed Plan are fully vested for benefits upon receiving five 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 change 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 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 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 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

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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 one 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 five 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 or terminated & vested).

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 or terminated & vested);
- 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 five 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 BackDROP is a payment option that is available to eligible 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. In the Year 2000 Plan, 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 one 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 work-related disability benefits, on or after July 1, 2000, are provided a \$5,000 death benefit payable to designated beneficiaries.

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

Year 2000 Plan-2011 Tier Description

Employees covered by the 2011 Tier are fully vested for benefits upon earning ten 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 ten 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 one 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 four percent 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.

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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)
6/30/2011	\$1,427,290,718	\$3,297,589,869	\$1,870,299,151	43.28%	\$362,654,376	515.72%

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, 2011 Actuarial Valuation follows:

Valuation Date	6/30/2011
Actuarial Cost Method	Entry Age Normal
Amortization Method	Closed, Level Percent Closed
Remaining Amortization Period	21 years*
Asset Valuation Method	3-year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return	8.25%
Projected Salary Increases	3.75% to 12.25%
COLAs	2.6% Compound
Price Inflation	3.25%

*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. Unless authorized under a separate Investment Management Agreement, it is the policy of the System to limit each equity manager to investing a maximum of 5% of the market value of their portfolio in any single company and to limit fixed income managers to investing 3% of their portfolio into obligations of a single corporation. Fixed income obligations of the U.S. Government or U.S. Government agencies may be held in any amounts.

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).

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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, 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, 2011 and 2010, MPERS had carrying amount of deposits of (\$1,246,566) and (\$1,914,861), respectively, and a bank balance of \$4 and \$16, 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, 2011 and 2010 were \$1,281,000 and \$2,124,868, respectively. As of June 30, 2011 and 2010, 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 assets.

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

Note 3 (d) – Investments

Summary of Investments by Type at June 30

	2011		2010	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Government Obligations	\$ 92,968,786	\$ 94,892,144	\$ 36,620,086	\$ 40,164,929
Corporate Bonds	27,995,407	28,671,607	27,265,315	28,512,411
Stock and Rights/Warrants	425,484,627	503,897,859	453,260,769	418,603,323
Real Estate	149,702,446	143,696,195	127,889,920	106,116,740
Mortgages & Asset-Backed Securities	152,578,823	146,951,071	124,655,750	103,112,077
Absolute Return	117,107,298	153,035,433	142,890,806	162,936,098
Tactical Fixed Income	55,537,756	81,495,581	55,548,331	75,793,208
Venture Capital & Partnerships	367,240,639	362,322,778	287,232,156	244,309,475
Short-Term Investments	34,552,499	34,548,053	122,117,934	121,942,945
Securities Lending Collateral	60,133,588	60,133,588	44,655,544	44,655,544
Total Investments	\$1,483,301,869	\$1,609,644,309	\$1,422,136,611	\$1,346,146,750

Reconciliation to Statement of Plan Net Assets:

Less: Repurchase Agreements	(1,281,000)	(2,124,868)
Less: Securities Lending Collateral	(60,133,588)	(44,655,544)
Investments per Statement of Plan Net Assets	\$1,548,229,721	\$1,299,366,338

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 Type	Fair Value	Investment Maturities (in years) as of 6/30/2011			
		Less than 1	1 - 5	6 - 10	More than 10
Asset-Backed Securities	\$ 3,579,897	\$0	\$ 989,182	\$ 1,962,896	\$ 627,819
Commercial Mortgage-Backed Securities	83,571,524	0	0	0	83,571,524
Corporate Bonds	28,671,607	0	12,119,722	11,897,656	4,654,229
Government Agencies	11,903,475	0	11,903,475	0	0
Government Bonds	35,306,046	0	26,108,453	4,706,549	4,491,044
Government Mortgage-Backed Securities	59,799,649	0	0	16,785,874	43,013,775
Index Linked Govt Bonds	32,099,727	0	10,417,002	14,943,891	6,738,834
Municipal/Provincial Bonds	15,582,897	0	2,661,949	350,217	12,570,731
Total	270,514,822	\$0	\$64,199,783	\$50,647,083	\$155,667,956
Pooled Investments	81,495,581				
Grand Total	\$352,010,403				

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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	6/30/2011 Fair Value	6/30/2010 Fair Value
Asset-Backed Securities	A	\$1,544,685	\$734,935
Asset-Backed Securities	AA	309,964	95,090
Asset-Backed Securities	AAA	538,073	555,706
Asset-Backed Securities	BB-	182,215	232,310
Asset-Backed Securities	BBB+	0	313,625
Asset-Backed Securities	CC	293,800	341,600
Asset-Backed Securities	CCC	0	213,603
Asset-Backed Securities	not rated	711,160	786,909
Commercial Mortgage-Backed Securities	A-	2,459,389	4,380,711
Commercial Mortgage-Backed Securities	A	1,061,281	2,528,597
Commercial Mortgage-Backed Securities	A+	4,381,397	1,042,386
Commercial Mortgage-Backed Securities	AA-	0	1,610,822
Commercial Mortgage-Backed Securities	AA	505,434	641,893
Commercial Mortgage-Backed Securities	AAA	8,910,498	9,525,406
Commercial Mortgage-Backed Securities	B-	2,216,129	0
Commercial Mortgage-Backed Securities	B	0	689,388
Commercial Mortgage-Backed Securities	B+	15,202,813	9,751,595
Commercial Mortgage-Backed Securities	BB-	5,452,452	2,509,580
Commercial Mortgage-Backed Securities	BB	9,338,381	7,005,644
Commercial Mortgage-Backed Securities	BB+	1,859,199	2,271,878
Commercial Mortgage-Backed Securities	BBB-	148,136	0
Commercial Mortgage-Backed Securities	BBB	324,253	6,459,626
Commercial Mortgage-Backed Securities	BBB+	6,655,862	0
Commercial Mortgage-Backed Securities	CC	523,894	0
Commercial Mortgage-Backed Securities	CCC-	769,950	0
Commercial Mortgage-Backed Securities	CCC	4,474,297	3,593,610
Commercial Mortgage-Backed Securities	CCC+	0	131,793
Commercial Mortgage-Backed Securities	D	1,973,888	0
Commercial Mortgage-Backed Securities	not rated	17,314,271	14,781,893
Corporate Bonds	A-	1,484,070	2,558,956
Corporate Bonds	A	5,026,496	2,891,173
Corporate Bonds	A+	2,389,175	1,240,072
Corporate Bonds	AA-	1,262,698	1,697,758
Corporate Bonds	AA	1,290,076	797,178
Corporate Bonds	AA+	499,212	308,187
Corporate Bonds	AAA	0	956,040
Corporate Bonds	BB+	1,154,266	903,607
Corporate Bonds	BBB-	7,760,553	7,496,944
Corporate Bonds	BBB	4,618,951	3,975,938
Corporate Bonds	BBB+	2,375,070	3,508,299
Corporate Bonds	not rated	811,040	2,178,259
Corporate Convertible Bonds	A+	0	319,837
Government Agencies	AA	0	297,231
Government Agencies	AAA	11,903,475	465,736
Government Bonds	AAA	0	26,278,817
Government Bonds	Treasury	35,306,046	6,652,673
Government Mortgage-Backed Securities	Agency	59,526,955	32,913,477
Government Mortgage-Backed Securities	not rated	272,694	0
Index Linked Government Bonds	Treasury	32,099,727	0
Municipal/Provincial Bonds	A	736,686	1,048,040
Municipal/Provincial Bonds	A+	1,382,985	514,687
Municipal/Provincial Bonds	AA-	1,025,799	857,080
Municipal/Provincial Bonds	AA	157,598	159,387
Municipal/Provincial Bonds	AA+	864,379	0
Municipal/Provincial Bonds	AAA	10,000,669	3,891,278
Municipal/Provincial Bonds	not rated	1,414,781	0
Pooled Investments	not rated	81,495,581	75,793,208
Total		\$352,010,403	\$247,902,462

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

Note 3 (g) – Investment Foreign Currency Risk

Exposure to Foreign Currency Risk as of June 30

Foreign Currency	Cash and Equivalents	Equities	Fixed Income	Real Estate	6/30/11 Total	6/30/10 Total
Australian Dollar	\$ 176,369	\$ 1,157,137	\$0	\$ 0	\$ 1,333,506	\$ 2,703,166
British Pound Sterling	91,529	925,988	0	0	1,017,517	2,761,014
Canadian Dollar	59,569	50,277	0	0	109,846	1,660,195
Euro	315,439	764,023	0	13,533,649	14,613,111	9,742,550
Hong Kong Dollar	3,295	498,917	0	0	502,212	1,592,765
Japanese Yen	22,978	632,922	0	0	655,900	932,889
Philippine Peso	2,328	438,930	0	0	441,258	0
Singapore Dollar	186,261	2,427,787	0	0	2,614,048	2,435,350
Swedish Krona	3,754	368,773	0	0	372,527	194,742
Total Exposure Risk	\$861,522	\$7,264,754	\$0	\$13,533,649	\$21,659,925	\$22,022,671

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, 2011 and 2010, 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 85 days and 88 days, as of June 30, 2011 and June 30, 2010, respectively. Cash open collateral is invested in a short-term investment

pool, which had an interest sensitivity of 21 days and 25 days, as of June 30, 2011 and June 30, 2010, 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:

Notes to the Financial Statements

Collateral Held

Investment Type	2011	2010
Equities	\$41,536,004	\$34,062,205
Government & government sponsored securities	11,786,835	7,657,793
Corporate bonds	7,017,120	4,266,725
	\$60,339,959	\$45,986,723

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. MPERS had no derivatives contracts in their portfolio as of June 30, 2011. The notional/market value of \$131,922,512 for the various contracts in MPERS' portfolio as of June 30, 2010 is recorded in investments on the Statement of Plan Net Assets. The change in fair value of \$22,369,693 for the year ended June 30, 2011 is recorded in investment income on the Statement of Changes in Plan Net Assets.

NOTE 4 – RECEIVABLES

Receivables at June 30 consisted of the following:

Receivables

Type	2011	2010
Contributions-MoDOT	\$ 3,972,515	\$ 3,308,463
Contributions-MSHP Non-Uniformed	697,114	559,379
Contributions-MSHP Uniformed	1,370,534	1,086,610
Contributions-Retirement System	17,713	11,682
Commission Recapture	3,008	1,293
Securities Lending	14,477	16,202
Amounts Due From Members	84	185
Investment Interest & Income	3,374,809	3,264,452
Investment Sales	28,250,357	82,216,889
	\$37,700,611	\$90,465,155

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

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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 \$150,022,169 and \$124,052,534 for fiscal years 2011 and 2010, 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, 2011 and 2010 are shown below. The Board established actual rates to be the same as the actuarially determined rates.

Contribution Rates

MoDOT, MPERS & Civilian Patrol	2011		2010	
	Uniformed Patrol	2011 Tier Employee	MoDOT, MPERS & Civilian Patrol	Uniformed Patrol
39.46%	49.53%	4.00%	31.40%	39.95%

NOTE 6 – RELATED PARTY TRANSACTIONS

MoDOT rents office space from MPERS. The contract began in June 2008 and is effective through December

2011. This amounted to other income of \$33,141 and \$33,145 during FY11 and FY10, respectively.

NOTE 7 – PERSONAL SERVICES AND RETIREMENT PLAN

MPERS employed 14 full-time employees on June 30, 2011 and 13 on June 30, 2010. Six former MPERS employees have retired. Full-time employees are also members of the System. For these employees, MPERS accrued 39.46% of payroll during FY11, amounting to \$365,073, which was equal to the required contribution.

The net obligations for FY11 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 June 30	Annual Required Contribution		Percent Contributed	Net Obligation
	Percent	Dollars		
2009	30.72% ⁽¹⁾	255,300	100%	\$0
2010 ⁽²⁾	31.40% ⁽¹⁾	282,762	100%	\$0
2011	39.46% ⁽¹⁾	365,073	100%	\$0

(1) The Annual Required Contribution rate is equal to the Actuarially Required Contribution rate.

(2) New assumptions adopted.

NOTE 8 – OTHER POSTEMPLOYMENT 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,

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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 51% and 49%, 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, 2009 actuarial valuation was used for the FY10 and FY11 financial statements. For this period, the annual required contribution (ARC) is equal to the annual OPEB cost. MPERS contributed \$31,619 in both FY11 and FY10 (27% and 26% 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 12.8% and 13.1% of annual covered payroll of \$930,925 and \$912,611 for FY11 and FY10, respectively. MPERS' share of the net OPEB obligation was \$364,124 and \$276,548 at June 30, 2011 and 2010, 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	2011	2010
Normal Cost	\$ 56,791	\$ 56,791
Amortization Payment	60,910	60,910
Interest	17,742	13,746
Adjustment to ARC	(16,248)	(11,031)
Annual OPEB Cost	119,195	120,416
Contributions	(31,619)	(31,619)
Increase in Net OPEB Obligation	87,576	88,797
Adjustment for Prior Years' Interest	0	5,446
Net OPEB Obligation - Beginning of Year	276,548	182,305
Net OPEB Obligation - End of Year	<u>\$364,124</u>	<u>\$276,548</u>

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, 2009, MPERS' portion of the AAL is \$1,036,681, which is equal to MPERS' portion of the unfunded actuarial accrued liability (UAAL), as shown below.

Actuarial Accrued Liability

Actuarial Accrued Liability	\$1,036,681
Actuarial Value of Assets	0
Unfunded Actuarial Accrued Liability (UAAL)	<u>\$1,036,681</u>
Funded Ratio (Actuarial Value of Plan Assets/AAL)	0%
Covered Payroll	\$ 930,925
UAAL as a Percentage of Covered Payroll	111%

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

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

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% in 2015

NOTE 9 – CAPITAL ASSETS

Summary of Changes in Capital Assets

	6/30/2010 Balance	Additions	Deletions/ Retirements	6/30/2011 Balance
Land	\$ 84,000	\$ 0	\$ 0	\$ 84,000
Buildings	581,619	0	0	581,619
Furniture, Equipment and Software	3,053,494	383,231	(22,490)	3,414,235
Less: Accumulated Depreciation	(442,587)	(372,468)	22,490	(792,565)
Total	\$3,276,526	\$ 10,763	\$ 0	\$3,287,289

	6/30/2009 Balance	Additions	Deletions/ Retirements	6/30/2010 Balance
Land	\$ 84,000	\$ 0	\$ 0	\$ 84,000
Buildings	581,619	0	0	581,619
Furniture, Equipment and Software	1,318,357	1,735,137	0	3,053,494
Less: Accumulated Depreciation	(324,729)	(117,858)	0	(442,587)
Total	\$1,659,247	\$1,617,279	\$0	\$3,276,526

Notes to the Financial Statements

For the Years Ended June 30, 2011 and 2010

NOTE 10 – OPERATING LEASES

As of June 30, 2011, MPERS is committed to two equipment and services related leases. The leases extend through May 2014. As of June 30, 2010, MPERS was

committed to four leases. Expenditures for the years ended June 30, 2011 and 2010 amounted to \$25,884 and \$32,123, respectively.

Future Minimum Lease Payments

Year Ending June 30

2012	8,604
2013	8,604
2014	6,135
Total minimum lease payments	<u>\$23,343</u>

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 director and staff. Settlements have not exceeded coverages for each of the past three fiscal years.

NOTE 12 – COMMITMENTS

As of June 30, 2011, MPERS has \$320,950,648 unfunded commitments in alternative investments.

During fiscal year 2007, the System purchased a new pension administration software system. \$3,248,161 of the total costs have been capitalized and \$181,777

have been expensed. As of June 30, 2011, payments totaling \$2,741,761 have been made on the capitalized portion, leaving \$506,400 remaining to be paid. Of this remaining amount, \$397,500 will be paid in FY2012, and \$108,900 in FY2013.

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
2006	\$1,521,142,953	\$2,740,437,837	\$1,219,294,884	55.51%	\$341,227,890	357.33
2007 ⁽²⁾	1,685,807,004	2,897,267,409	1,211,460,405	58.19%	365,012,472	331.90
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

(1) Values are estimated from contribution rate and amount.

(2) New assumptions adopted.

Schedule of Employer Contributions

Year Ended June 30	Uniformed Patrol			MoDOT, Civilian Patrol & MPERS		
	Annual Required Contribution Percent	Dollars	Percent Contributed	Annual Required Contribution Percent	Dollars	Percent Contributed
2006	44.27	24,102,199	100	30.49	87,440,518	100
2007 ⁽²⁾	44.28 ⁽¹⁾	27,802,932	100	31.10 ⁽¹⁾	93,991,526	100
2008	42.61	29,147,429	100	31.01	95,380,249	100
2009	40.22	27,298,132	100	30.72	95,745,169	100
2010 ⁽²⁾	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

(1) The ARC is the rate adopted by the Board of Trustees. This rate exceeded the actuarially calculated rate.

(2) New assumptions 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, 2011
Actuarial Cost Method	Entry Age Normal
Amortized Method	Level Percent of Payroll
Remaining Amortization Period	21 Years (single equivalent period)
Amortization Approach	Closed
Asset Valuation Method	3-Year Smoothing
Actuarial Assumptions:	
Investment Rate of Return	8.25%
Projected Salary Increase	3.75% to 12.25%
Cost-of-Living Adjustments	2.6% Compound
Includes Wage Inflation at	3.75%

Required Supplementary Information

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%

(1) New assumptions adopted

Actuarial valuations are performed biennially. 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, 2009
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% in 2015

Supplementary Information

SCHEDULES OF ADMINISTRATIVE EXPENSES For the Years Ended June 30, 2011 and 2010

	2011	2010
Personal Services:		
Salary Expense	\$ 946,572	\$ 930,172
Employee Benefit Expense	672,455	587,265
Total Personal Services	1,619,027	1,517,437
Professional Services:		
Actuarial Services	87,714	111,140
Computer Services	0	212,605
Audit Expense	29,400	30,815
Disability Program	15,104	13,687
Consultant Fees	115,022	122,374
Fiduciary Insurance	53,999	0
Other	15,403	9,502
Total Professional Services	316,642	500,123
Miscellaneous:		
Depreciation	372,468	117,859
Meetings/Travel/Education	67,366	59,889
Equipment/Supplies	39,127	50,876
Printing/Postage	67,263	89,989
Bank Service Charge	8,105	8,021
Building Expenses	102,238	88,249
Other	66,613	79,738
Total Miscellaneous	723,180	494,621
Total Administrative Expenses	\$2,658,849	\$2,512,181

Supplementary Information

SCHEDULES OF INVESTMENT EXPENSES

For the Years Ended June 30, 2011 and 2010

	2011	2010
Investment Income Expenses:		
Management and Performance Fees		
Aberdeen Asset Management	\$ 159,623	\$ 145,998
ABRY Partners	270,974	376,041
Acadian Asset Management	870,319	905,766
AEW	255,266	187,500
Albourne	240,000	240,000
Algert Coldiron Investments (ACI)	14,475	115,418
American Infrastructure MLP	222,570	257,625
Anchorage Capital	140,724	0
Apollo Real Estate	327,364	283,723
AQR Capital Management	266,831	235,767
Artio (formerly Julius Baer)	492,819	607,856
Audax Group	143,185	132,197
Barclays Global Investors	461,695	349,081
Black River	222,249	393,085
Brevan Howard	465,074	715,194
Bridgewater Associates	1,922,917	919,795
CBRE	116,440	91,951
Clifton	47,079	68,089
Colony Capital	2,500	100,506
Concordia	5,777	21,178
CQS Management	66,447	260,077
CarVal Investors (CVI)	375,303	443,057
Deephaven Capital Management	10,155	49,259
EIF Management	152,625	174,825
Enhanced Investment Technologies (INTECH)	329,855	283,907
GMO	0	118,096
Grove Street Advisors	3,000,000	1,615,385
GSO	0	0
ING Clarion	447,573	432,294
Luxor	416,354	265,325
Natural Gas Partners	397,817	425,207
Och-Ziff Real Estate	145,313	179,339
Ospraie	262,121	247,990
Paulson and Co.	635,527	585,328
Pinnacle Associates	304,832	223,399
Principal Global Investors	750,355	648,264
RMK Timberland	153,096	164,137
Rothschild Asset Management	87,590	76,189
Silchester International Investors	597,271	612,932
Stark Investments (Shepard)	151,430	159,517
Structured Portfolio Management (SPM)	930,038	1,910,068
Taconic	683,004	547,355
Tortoise	272,788	0
Urdang	188,051	261,969
Vectis	187,500	187,500
Vicis Capital	19,834	95,991
Western Asset Management Company	479,154	1,442,370
Total Management and Performance Fees	17,691,914	17,556,550
Investment Custodial Fee	115,915	97,212
Performance Management	84,837	87,000
General Consultant (monitoring) Fee	225,000	225,000
Other Investment Expenses	421,162	101,681
Total Investment Income Expenses	\$18,538,828	\$18,067,443
Securities Lending Expenses:		
Borrower Rebates	\$34,609	\$112,145
Bank Fees	47,144	79,194
Total Securities Lending Expenses	\$ 81,753	\$ 191,339

Supplementary Information

SCHEDULES OF CONSULTANT AND PROFESSIONAL EXPENSES

For the Years Ended June 30, 2011 and 2010

	2011	2010
Actuarial Services	\$ 87,714	\$ 111,140
Computer Services	0	212,605
Audit Services	29,400	30,815
Disability Administrative Services	15,104	13,687
Legislative Consultant	26,500	33,667
Board Governance Consultant	52,896	51,634
Customer Service and Benefit Delivery	29,626	31,073
Insurance Consultant	6,000	6,000
Fiduciary Insurance	53,999	0
Other	<u>15,403</u>	<u>9,502</u>
Total Consultant and Professional Expenses	<u>\$316,642</u>	<u>\$500,123</u>

Notes



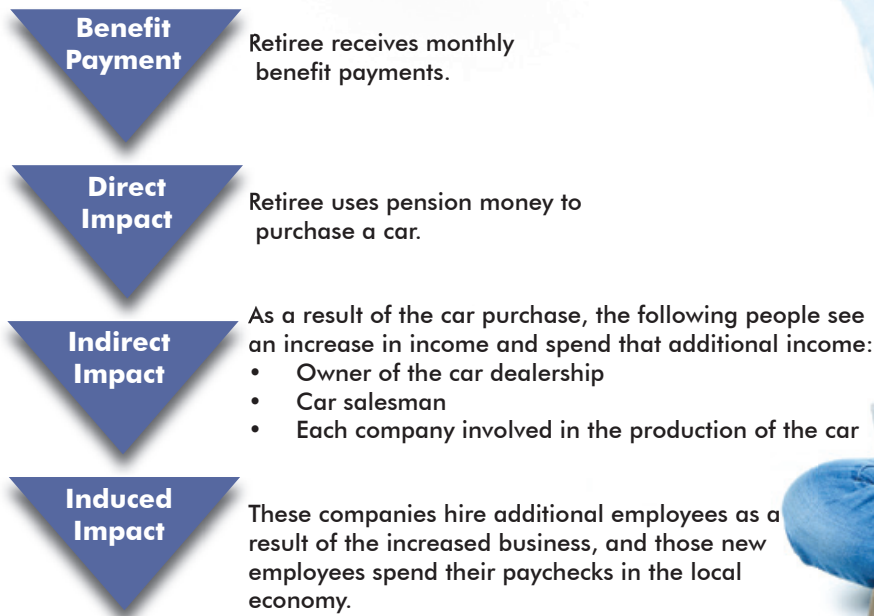
The National Institute on Retirement Security (NIRS) estimates that 2009 expenditures from public and private sector pension plans:

- Had a total economic impact of \$756 billion.
- Supported more than \$121.5 billion in annual federal, state, and local tax revenue.

The benefits provided by pension plans also have an impact that reaches well beyond the retirees who receive pension checks. Public and private pensions play a vital role in the national economy as well as in local economies across the country.

The steady, monthly benefit payments offered by pension plans provide peace of mind and security for retirees. At the same time, the national and local economies benefit from the regular expenditures of retirees.

The Multiplier Effect: How Spending Ripples Through the Economy, Supporting Jobs and Incomes in the Process



Source of Information:

National Institute on Retirement Security (NIRS) - Testimony before a US Senate Committee Hearing "The Power of Pensions: Building a Strong Middle Class and Strong Economy" July 12, 2011

Almeida, B. and I. Boevie. 2009. "Pensionomics: Measuring the Economic Impact of State and Local Pension Plans." Washington, DC: National Institute on Retirement Security.

Chief Investment Officer Report

Susie Dahl
Executive Director



Pam Henry
Assistant Executive Director

MoDOT & Patrol Employees' Retirement System

December 16, 2011

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.

The expression "May you live in interesting times" is certainly popular today. And while the origins and meaning of this expression are often debated (blessing or curse, Chinese or Western origin, etc.), most people in the investment profession agree that we've seen enough "interesting times" over the past few years to last a lifetime.

Fiscal year 2011 certainly produced its share of "interesting times" in the financial markets, but as the dust settled it was an excellent year for MPERS' investment portfolio. MPERS' portfolio generated a 21.8% return for the year, which was the highest return since fiscal year 1986 and also outperformed the policy benchmark return by 5.1%. Make no mistake about it, fiscal year 2011 was not a market for the faint of heart. A massive Japanese earthquake and resulting tsunami led to the meltdown of a Japanese nuclear plant, an embarrassing U.S. budget debate ultimately led to the downgrade of U.S. Treasury obligations, and the ongoing European sovereign debt crises are just a few of the historical events that shaped the markets over the past year. Each of these events resulted in large market downturns and growing fears of double-dip recessions across the world. Fortunately, each and every downturn was offset by an even stronger rebound. The end result was one of the best investment years in the history of MPERS.

Performance was strong across all five major asset classes. Global equities led the way with a 32% return. Fixed income generated the lowest return, but still produced a healthy 8.5% return for the year. MPERS' private equity portfolio was the only sector that did not outperform its respective benchmark. The private equity portfolio remains very immature, yet was able to generate a healthy 17% return for the year. We are optimistic about returns in this asset class going forward.

Despite the strong returns over the past year, the memories of the 2008/2009 financial crisis remain fresh in the minds of investors. Corporations have restructured their balance sheets and are flush with cash, yet the balance sheets of governments across the developed world (especially the United States and Europe) are in very poor condition. These governments took on massive amounts of debt during the financial crisis to stimulate the economy, mainly in the form of bank bailouts and various stimulus programs. Today, the overall government debt burden has grown to the point where future economic growth is being squeezed by the uncertainty of how to service this debt. Reducing government debt means reducing government spending – the same spending that has supported the global economic recovery in recent years. The future reduction of government balance sheets will be yet another headwind for investment markets and could certainly generate more "interesting times" in the years to come.

While market uncertainty brings additional risk to the investment portfolio, it's important to keep in mind that pension plans are in the business of managing risk, not simply avoiding risk. The risk exposures in the investment portfolio enable the fund to earn an attractive return which helps 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. The asset allocation approved by the Board of Trustees is designed to protect the fund against the uncertainty that remains in the global economy, and should perform well across various market environments, not just when the stock market rallies. This strategy should serve MPERS well as we navigate through the "interesting times" in the years to come.

Sincerely,

A handwritten signature in black ink, appearing to read 'Larry Krummy', written over a light blue background.

Larry Krummy, 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@modot.mo.gov

Investment Consultant Report



Summit Strategies Group

October 25, 2011

Ms. Susie Dahl
Executive Director
MoDOT & Patrol Employees' Retirement System
1913 William Street
Jefferson City, MO 65109

Dear Ms. Dahl:

The markets over the last few years have been tumultuous for investors across the globe at best. The S&P 500 Index fell approximately 39% in a nine-week period during the second half of calendar year 2008, which resulted in a global market sell-off. In March of 2009 the markets began a strong recovery which continued through the first three quarters of the fiscal year ending June 30, 2011. The markets were flat in the final quarter of the period, as concerns over the European debt crisis and global inflation took hold; even so, the market performance across the entire fiscal year was relatively strong. For the 12-month period the broad U.S. stock market generated a 32.4% return, with the broad U.S. fixed income market up a modest 3.9%.

With total assets of \$1,544,387,724 as of June 30, 2011, MPERS earned a net of fees return of 21.8%. The Total Fund outperformed both the System's policy benchmark of 16.7% and the median public pension fund return of 21.3%, respectively. For the 3- and 5-year periods, the fund earned 1.2% and 3.6%, slightly behind the policy benchmark though still producing positive absolute returns. These returns were calculated using a time-weighted rate of return and are based on June 30, 2011 market values.

Performance in your stock and bond portfolios was outstanding for fiscal year 2011. MPERS' U.S. stock portfolio was up 36.2%, outperforming the broad market by 3.9% and beating 87% of the funds in the peer group. The non-large U.S. stock portfolio was the primary driver of performance with a year-to-date return of 45.4%, outperforming the index by over 6% and bettering 78% of the peer group. The fixed income portfolio was up 8.5% for the fiscal year, it outperformed the broad fixed income market by 3.8% – and ranked better than 89% of the funds in the peer group. The opportunistic debt portfolio had a strong first fiscal year of performance, returning a respectable 19.5% and ranking 7th percentile versus peers. The real estate portfolio results continued to weigh down the 3-year and 5-year total fund returns, but garnered a significant return of 27.2% for fiscal year 2011.

Summit Strategies Group appreciates the opportunity to have served as your investment advisor during the fiscal year.

Sincerely,

Mark A. Caplinger, CFA
Senior Vice President

8182 Maryland Avenue, 6th Floor • St. Louis, Missouri 63105 • 314.727.7211, fax 314.727.6068

Investment Activity Overview

Summary of Investment Policy

The primary objective of the Missouri Highway Transportation Employees & Highway Patrol Retirement System (MPERS) is to provide active and retired employees with adequate retirement benefits. The investment portfolio is constructed to generate a total return that, when added to employer contributions, is sufficient to meet 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.

Investment management is delegated to MPERS' staff and external asset managers. The managers operate within the set of guidelines, objectives and constraints set forth in their respective investment management agreement.

Market Value of Investments

As of June 30, 2011, MPERS' investment portfolio had a total market value of \$1.54 billion, representing an increase of \$240.9 million from fiscal year-end 2010. Over the course of the year, \$56.5 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 \$297.4 million.

Investment Performance

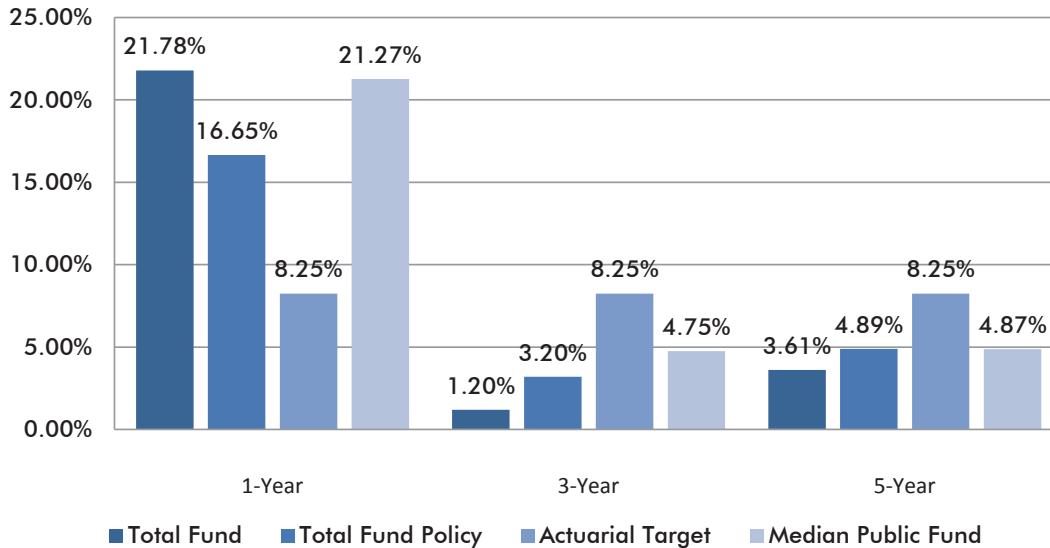
MPERS' investment portfolio returned 21.78% in fiscal year 2011, net of fees and based on time-weighted rates of return and market valuations. Performance for the various sub-asset classes and their respective benchmark indices are listed below.

Investment Performance (Including Benchmarks)	1-Year	3-Year	5-Year
Total Fund	21.78%	1.20%	3.61%
Policy Benchmark	16.65	3.20	4.89
Global Equity	32.12	2.06	3.96
MSCI ACWI	30.14	1.84	3.66
Fixed Income	8.53	5.07	5.32
Lehman Universal Index	4.78	6.74	6.61
Real Estate	27.20	-7.98	-0.95
NCREIF Property Index	16.73	-2.56	3.45
Private Equity	17.61	-0.94	1.91
S&P 500 + 300 bps	19.11	4.03	4.94
Hedge Funds	9.83	2.50	4.17
HFRI Fund of Funds Index	6.69	-1.81	1.54

Investment Activity Overview

When measuring performance, the Board of Trustees looks at three primary performance objectives: a) meet or exceed the actuarial assumed rate of return of 8.25%, b) 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) rank at or above the median public fund investment return.

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



Fiscal year 2011 was a very strong year for investors, as financial markets continued to rebound off the lows set during the financial crisis of 2008 and 2009. Investor fears continued to diminish throughout the year as the equity markets traded higher on strong fundamental earnings growth. Despite closing on a strong note, volatility was a common theme throughout the year, as the markets went through several extended periods where fear dominated the markets. Events such as the Japanese earthquake and tsunami, the continuing European sovereign debt crisis, and a U.S. deficit battle in Congress that led to the downgrade of U.S. Treasury obligations all led to significant market declines. Thankfully, these periods of fear were offset by euphoric rebounds, and the markets generated strong results through June 30, 2011.

Fiscal year 2011 was also an excellent year for MPERS' investment portfolio, both from an absolute and relative return perspective. The 21.8% return was the highest investment return since fiscal year 1986, and outperformed the Policy Benchmark return by 5.1%. Performance was strong across all five major asset classes, with global equities leading the way with a 32% return. Fixed income generated the lowest return, but still produced a healthy 8.5% return for the year. MPERS' private equity portfolio was the only sector that did not outperform its' respective benchmark. The private equity portfolio remains very immature, yet was able to generate a healthy 17% return for the year and we are optimistic about returns in the

space going forward.

Asset Allocation Overview

Fiscal year 2011 was a year of transitioning for MPERS' investment portfolio, as we gradually shifted the portfolio to the new asset allocation targets approved by the Board of Trustees in June 2010. We're pleased to report the majority of assets were transitioned by June 30, 2011, which is much sooner than initially forecast. Thanks to the hard work of staff and MPERS' external consultants, and despite the market volatility and periods of transition, MPERS' closed fiscal year 2011 with an asset allocation in-line within the permissible ranges set forth in MPERS' investment policy. Going forward, any deviance relative to target allocations will be a conscious decision based on our views of the market.

Global Equity Allocation:

We began the year with a 41% allocation to global equities, considerably above the new targeted allocation of 30%. We maintained this overweight throughout most of the year, on the belief that corporations had relatively strong balance sheets and should perform well in the current low-interest rate environment. Throughout the year we gradually reduced this overweight as sovereign debt concerns began to impact investor confidence. MPERS closed the year with a 31.5% allocation to global equities, just slightly above targets.

Investment Activity Overview

Going forward, we expect to have a slight underweight to global equities, offset by an overweight positioning to the private equity portfolio.

Fixed Income Allocation:

We began fiscal year 2011 with a 34.5% allocation to fixed income, however this included MPERS' allocation to hedge funds pursuant to the old asset allocation methodology. The new asset allocation targets have separate allocations to traditional fixed income and hedge fund strategies, with fixed income having a 25% targeted allocation. The fixed income portfolio, which underperformed drastically in fiscal year 2009, continued to rebound strongly in fiscal year 2011 generating a 8.5% return relative to a benchmark return of 4.8%.

The new fixed income allocation includes allocations to long duration securities (target of 5% of assets), inflation protected securities (target of 5% of assets), and a core fixed income allocation (target of 10% of assets) benchmarked to the Barclay's Government/Credit Index. MPERS also has a 5% targeted allocation to opportunistic debt strategies to take advantage of relative value opportunities in the fixed income sector. Throughout the year we made considerable progress in funding the opportunistic debt and long duration allocations, but remain underweight to inflation protected securities given the negative real yields common throughout the sector. Overall, we closed the books on June 30, 2011 with a 22.9% allocation to fixed income securities.

Hedge Fund Allocation:

Effective June 30, 2010, MPERS' asset allocation includes a targeted allocation of 15% for hedge fund strategies. Previously, all hedge fund strategies were housed under the fixed income category. Throughout fiscal year 2011, we made a number of manager moves in the sector to position the portfolio towards the revised risk and return profile established in the asset allocation study. Going forward, the portfolio is designed to generate a diversified return stream with relatively low risk (defined as volatility of returns) and a low correlation (i.e., moves differently relative) to the broad equity markets. MPERS closed fiscal year 2011 with a 11.2% allocation to the hedge fund sector, which produced a solid 9.8% return for the year.

Real Assets Allocation:

Fiscal year 2011 was a turning point for MPERS' real assets portfolio, as commercial real estate prices rebounded strongly after two years of negative returns. We began the year with an 11.3% allocation to real assets, but thanks to strong investment returns and several new investment mandates, we ended the year with a 17% allocation. Performance was strong across most sectors, with core real estate producing a 35% return, non-core (value added/opportunistic) strategies generating a 17% return, and

listed REITS (real estate investment trusts) generating a 24% return. MPERS' timber portfolio trailed the pack with a 1.3% return, suffering from the continued weakness in the housing construction sector. Overall the asset class generated a 27.2% return for the year, and we remain optimistic about the return prospects going forward.

Private Equity Allocation:

MPERS' private equity allocation rose from 12.1% of assets to 15.8% of assets during the course of fiscal year 2011. Overall the portfolio generated a 17.6% return for the year, which is very respectable given the relative immaturity of the portfolio (MPERS started committing capital to private equity in 2005). The portfolio once again trailed the benchmark return due to timing-related issues, as the "public equity plus" benchmark (S&P 500 + 3%) for the private equity portfolio remains extremely difficult to match during periods of strong public equity performance. The underlying companies within the private equity portfolio continue to perform well, and we expect to maintain an overweight position to the asset class for the foreseeable future.

Looking Forward:

With the majority of the portfolio transitioned to the new asset allocation targets approved by the Board of Trustees, going forward we expect to see more attention to smaller scale, "blocking and tackling" issues. Listed below are a few key initiatives as we enter fiscal year 2012.

The hedge fund portfolio is always a focal point of staff's effort and attention, and going forward will be no exception. As part of the last asset allocation study, we made a conscious effort to shift risk from MPERS' equity portfolio to alternative asset classes, and the biggest impact will occur in the hedge fund portfolio. We have transitioned away from market neutral oriented strategies and continue to migrate towards more event-driven and long/short equity strategies. MPERS' hedge fund portfolio, all things considered, held up very well during the last downturn. Going forward, we intend to focus more attention to this asset class to ensure it continues to perform well in the future.

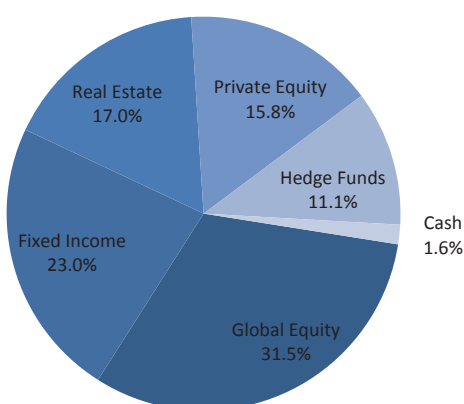
We also expect continued restructuring within the fixed income portfolio, as we look to reduce the risk that led to such wide performance swings from 2008-2010. We intend to gradually allocate funds away from the existing manager base towards passive investment strategies in long duration fixed income, Treasury Inflation Protected Securities (TIPS), and a core allocation to the Barclay's Capital Government/Credit Index.

The following chart lists the target and actual allocations to the various sub-asset classes within the overall portfolio (as of June 30, 2011).

Investment Summary

Asset Class	Ending FY10 Allocation	FY11 Target Allocation	Ending FY11 Allocation
Global Equity	31.9%	30%	31.5%
Private Equity	12.1%	15%	15.8%
Fixed Income	30.5%	25%	23.0%
Real Estate*	11.3%	15%	17.0%
Hedge Funds	13.2%	15%	11.1%
Cash	1.0%	0%	1.6%

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



Amounts Reported By Management-Type Allocation

	06/30/10		Acquisitions	Dispositions	06/30/11		% of Market
	Book Value	Market Value			Book Value	Market Value	
Global Equity	532,994,416	496,321,585	97,663,955	(222,598,318)	408,060,053	486,757,704	31.5%
Private Equity	194,599,358	166,628,445	72,648,135	(20,913,484)	246,333,726	244,235,096	15.8%
Fixed Income	217,680,036	254,389,030	485,832,578	(392,383,960)	311,128,654	353,287,430	23.0%
Real Estate**	256,314,579	192,396,483	74,140,296	(39,895,811)	290,559,064	262,909,644	17.0%
Hedge Funds	168,743,194	185,937,731	22,736,891	(45,033,309)	140,446,776	172,145,791	11.1%
Cash	13,356,968	13,362,547	11,705,664	(10,574)	25,052,058	25,052,058	1.6%
Total Investments	1,383,688,551	1,309,035,821	764,727,519	(720,835,456)	1,421,580,331	1,544,387,723	100.0%

Reconciliation to Statement of Plan Net Assets:

Less Accrued Investment Interest and Income	(3,374,809)
Less Investment Sales Receivable	(28,250,357)
Plus Investment Purchases Payable	30,941,463
Currency Adjustment	4,525,701
	<u>1,548,229,721</u>

** Timber was rolled into the overall Real Estate allocation on 4/1/2007.

Largest Investment Holdings

Largest Equity Securities

(Non-Commingled Funds)

Security	Market Value	% of Total
EXXON MOBIL CORP COM	\$3,376,293	0.670%
ATMEL CORP COM	2,037,055	0.404%
APPLE INC COM STK	1,879,752	0.373%
INTERNATIONAL BUSINESS MACHS CORP COM	1,818,430	0.361%
AT&T INC COM	1,803,311	0.358%
CUMMINS INC	1,728,283	0.343%
CHEVRON CORP COM	1,635,979	0.325%
GOODRICH CORPORATION	1,508,900	0.299%
GENERAL ELECTRIC CO	1,469,194	0.292%
CABLEVISION NY GROUP CL A COM	1,444,779	0.287%

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	\$14,943,891
20,000,000	FNMA PRIN STRIP SER 1-PRIN PMT ON 9% 2019 CAP DEB 02-01-2019 (UNDDATE) REG	14,529,040
10,000,000	USA TREASURY NTS TIPS DTD 00340 04-15-2016	10,417,002
6,000,000	UNITED STATES TREAS BDS INDEX LINKED 1.75 DUE 01-15-2028 REG	6,738,834
6,000,000	GNMA SER 2011-19 CL JD 4 DUE 02-20-2041	5,828,904
7,000,000	CMO COMMERCIAL MTG TR 2007-GG9 CL AJ FLTRT DUE 03-10-2039 BEO	5,790,428
5,000,000	US TREAS NTS DTD 02/28/2011 2.125 DUE 02-29-2016 REG	5,118,750
5,000,000	US TREAS NTS NT 2 DUE 01-31-2016 REG	5,097,265
5,000,000	UNITED STATES TREAS NTS DTD 00307 .75% DUE 08-15-2013 REG	5,026,560
5,000,000	FNMA .875% DUE 11-08-2013	4,998,450
5,000,000	UTD STATES TREAS 1.25% DUE 10-31-2015	4,957,810
4,900,000	FNMA DTD 11/15/2010 .9 11-15-2013/11-15-2011	4,912,985
5,000,000	CREDIT SUISSE FIRST BOSTON MTG SECS CORP2005-C4 MTG PASSTHRU CTF CL B 15 AUG 38	4,518,650
4,225,000	US TREAS BDS 4.75 DUE 02-15-2041 REG	4,491,044
5,500,000	CMO CR SUISSE COML MTG TR SER 2006-C4 SER 2006-C4 CL-AJ DUE 09-15-2039 REG	4,449,885
31,158,744	I/O CMO J P MORGAN CHASE COML MTG SECS TR 2010-C 08-05-2032 BEO	4,169,040

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 6/30/11	Fees Accrued During FY11
Management and Performance Fees:		
Cash	\$ 27,743,098	\$ 0
Cash/S&P 500 Futures	860,975	0
Internal Fixed Income	48,701,642	0
Internal US Tips	32,099,744	0
Internal US Treasuries	20,210,635	0
Transition Account	10	0
Aberdeen Asset Management	107,947,293	159,623
ABRY Partners	18,370,449	270,974
Acadian Asset Management	104,493,658	870,319
AEW	5,158,878	255,266
Albourne	0	240,000
Algert Coldiron Investments (ACI)	44,312	14,475
American Infrastructure MLP	17,766,705	222,570
Anchorage Capital	5,001,751	140,724
Apollo Real Estate	11,993,828	327,364
AQR Capital Management	18,287,049	266,831
Artio (formerly Julius Baer)	60,125,283	492,819
Audax Group	6,635,715	143,185
Barclays Global Investors	13,542,402	461,695
Black River	8,189,071	222,249
Brevan Howard	18,585,889	465,074
Bridgewater Associates	19,596,205	1,922,917
CBRE	28,093,191	116,440
Clifton	0	47,079
Colony Capital	4,298,700	2,500
Concordia	399,251	5,777
CQS Management	7,575,492	66,447
CarVal Investors (CVI)	34,699,036	375,303
Deephaven Capital Management	443,712	10,155
EIF Management	7,388,320	152,625
Enhanced Investment Technologies (INTECH)	94,297,548	329,855
Golub Capital	4,564,529	0
Grove Street Advisors	167,657,846	3,000,000
GSO	9,671,437	0
ING Clarion	50,035,960	447,573
Luxor	15,856,004	416,354
Natural Gas Partners	18,270,083	397,817
Och-Ziff Real Estate	9,393,746	145,313
Ospraie	12,971,544	262,121
Partner Fund Management	9,121,520	0
Paulson and Co.	14,397,634	635,527
Pinnacle Associates	42,454,053	304,832
Principal Global Investors	115,207,772	750,355
RMK Timberland	16,574,442	153,096
Rothschild Asset Management	42,994,583	87,590
Silchester International Investors	93,864,105	597,271
Stark Investments (Shepard)	4,665,480	151,430
Structured Portfolio Management (SPM)	15,100,359	930,038
Taconic	22,275,479	683,004
Tortoise	47,549,830	272,788
Urdang	15,851,838	188,051
Vectis	4,137,574	187,500
Vicis Capital	1,892,669	19,834
WS Capital Management	9,675,811	0
Western Asset Management Company	81,495,581	479,154
Total Management and Performance Fees	<u>\$1,548,229,721</u>	<u>17,691,914</u>
Other Investment Expenses		
Investment custodial fee		\$115,915
Performance management		84,837
General Consultant (monitoring) fee		225,000
Other investment expenses		421,162
Total Investment Income Expenses		<u>\$ 18,538,828</u>
Securities Lending Expenses:		
Borrower Rebates		\$ 34,609
Bank Fees		47,144
Total Securities Lending Expenses		<u>\$ 81,753</u>

Schedule of Brokerage Commissions

Brokerage Firm	Total Commission	Number of Shares	Commission Rate
BNY ESI SECURITIES CO.	\$ 23,187	568,461	\$ 0.0408
WEEDEN AND & CO	16,621	949,364	0.0175
CHINA INTL CAPITAL CORP HK SECS LTD	16,485	1,098,000	0.0150
JEFFERIES & COMPANY	11,907	664,995	0.0179
NORTHERN TRUST CO	10,291	349,400	0.0295
CREDIT SUISSE FIRST BOSTON CORPORATION	9,125	11,950,780	0.0008
MACQUARIE SECURITIES LTD, HONG KONG	8,060	5,357,120	0.0015
LYNCH JONES & RYAN	8,049	639,226	0.0126
CITATION GROUP	7,720	169,260	0.0456
UBS WARBURG LLC	6,562	24,774,082	0.0003
ROSENBLATT SECURITIES LLC 501	6,368	382,800	0.0166
DEUTSCHE BANK SECURITIES INC	6,215	6,762,632	0.0009
MERRILL LYNCH PIERCE FENNER & SMITH	5,737	3,262,041	0.0018
INSTINET	5,089	330,500	0.0154
GUZMAN & COMPANY	4,980	319,600	0.0156
CITIGROUP GLOBAL LTD BROKER	4,600	1,332,324	0.0035
INVESTMENT TECHNOLOGY GROUP INC	3,981	398,080	0.0100
BEAR STEARNS 57079	3,875	300,896	0.0129
BARCLAYS CAPITAL LE	3,744	234,416	0.0160
BRILL SECURITIES INC	3,151	75,800	0.0416
MERRILL LYNCH & CO. INC DTC161	3,141	113,567	0.0277
JP MORGAN SECURITIES AUSTRALIA LTD	3,002	400,223	0.0075
JP MORGAN SECURITIES (ASIA PAC)	3,001	1,112,766	0.0027
BERNSTEIN, SANFORD C. & CO	2,947	149,027	0.0198
STIFEL NICOLAUS AND COMPAN	2,378	2,595,253	0.0009
CAP INSTITUTIONAL SERVICES INC	2,330	127,000	0.0183
FIDELITY CAPITAL MARKETS	2,126	212,609	0.0100
BARCLAYS CAPITAL INC	2,036	50,900	0.0400
CITIGROUP GLOBAL MARKETS INC/SMITH BARNEY	1,896	128,307	0.0148
KEYBANC CAPITAL MARKETS INC.	1,886	81,334	0.0232
KEMPEN & CO AMSTERDAM	1,706	103,854	0.0164
STIFEL NICOLAUS & CO NEW YORK	1,662	55,416	0.0300
GREEN STREETADVISORS INC NEW YORK	1,556	31,124	0.0500
WACHOVIA CAPITAL MARKETS 46171	1,550	57,401	0.0270
WACHOVIA CAPITAL MARKETS LLC	1,420	20,601,713	0.0001
LIQUIDNET INC	1,198	80,267	0.0149
RAYMOND JAMES	1,197	29,931	0.0400
J P MORGAN CLEARING GROUP	1,175	31,328	0.0375
RAYMOND, JAMES & ASSOCIATES, INC.	1,114	83,349	0.0134
RBC DAIN RAUSCHER	1,110	18,818,989	0.0001
MORGAN STANLEY & CO INC	1,053	26,321	0.0400
DBS VICKERS (HONG KONG) LIMITED	1,030	228,000	0.0045
UBS SECURITIES ASIA	1,015	242,000	0.0042
OTHERS (68 firms less than \$1,000 each)	26,515	1,088,043,549	0.0000
TOTAL	\$ 233,791	1,193,324,005	
AVERAGE COMMISSION RATE			\$ 0.0002



The retirement savings shortfall for Americans is startling. The Center for Retirement Research at Boston College calculated that the estimated national retirement income deficit facing American households is some \$5.2 to \$7.9 trillion. This retirement underfunding for private sector workers could have significant negative impacts for individuals, the national economy, and struggling government budgets.



Source of Information:

National Institute on Retirement Security (NIRS) - Testimony before a US Senate Committee Hearing "The Power of Pensions: Building a Strong Middle Class and Strong Economy" July 12, 2011

Almeida, B. and I. Boivie. 2009. *Pensionomics: Measuring the Economic Impact of State and Local Pension Plans*. Washington, DC: National Institute on Retirement Security.

Retirement USA. 2010. "The Retirement Income Deficit" <http://www.retirement-usa.org/retirement-income-deficit-0>

Actuary's Certification Letter



Gabriel Roeder Smith & Company
Consultants & Actuaries

December 16, 2011

The Retirement Board
Missouri Department of Transportation
and Highway Patrol Employees' Retirement System
P.O. Box 1930
Jefferson City, Missouri 65102-1930

Dear Board Members:

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, 2011. This valuation indicates that contribution rates for the period beginning July 1, 2012 that are at least equal to the calculated contributions rates will meet the Board's financial objective. The calculated contribution rates are 50.92% of payroll for the 7,018 Non-Uniformed employees and 55.03% of payroll for the 1,213 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. The actuary summarizes and tabulates population data in order to analyze longer term trends.

Actuary's Certification Letter

The Retirement Board
Missouri Department of Transportation
and Highway Patrol Employees' Retirement System
December 16, 2011
Page 2

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, 2009 Experience Study.

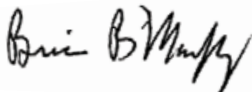
To the best of our knowledge, this report is complete and accurate and was made in accordance with standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate,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

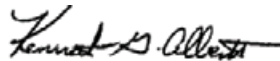
This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. Heidi Barry is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained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

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,



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



Kenneth G. Alberts

Gabriel Roeder Smith & Company

Summary of Actuarial Methods and Assumptions

Valuation Date:	June 30, 2011
Actuarial Cost Method:	Entry Age Normal
Amortized Method:	Closed, level percent of payroll
Remaining Amortization Period:	21 years (single equivalent period)
Asset Valuation Method:	3-year smoothing
Actuarial Assumptions:	
Investment Rate of Return:	8.25%
Projected Salary Increase:	3.75% to 12.25%
Cost-of-Living Adjustments:	2.6% Compound
Includes Wage Inflation at:	3.75%

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 2004-2009 study of experience of 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 8.25% 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 3.75%, the 8.25% rate translates to an assumed real rate of return over wage inflation of 4.5%. This rate was first used for the **June 30, 2005** valuation.

Summary of Actuarial Methods and Assumptions

Pay increase assumptions for individual active members are shown on page 44. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.75% recognizes wage inflation. These rates were first used for the **June 30, 2010** valuation.

Price Inflation is assumed to be 3.25%. This results in a 2.6% annual COLA assumption. It is assumed that the 2.6% COLA will always be paid.

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

Total active member payroll is assumed to increase 3.75% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. This rate was first used for the **June 30, 2005** valuation.

Non Economic Assumptions

The mortality table used to measure retired life mortality was the 1994 Group Annuity Mortality Tables projected to the year 2002 set forward 2 years for males and set back 3 years for females. Related values are shown on page 44. This table was first used for the **June 30, 2010** valuation. Disabled pension mortality was based on PBGC Disabled Mortality tables.

The probabilities of retirement for members eligible to retire are shown on page 45. The rates for full retirement were first used in the **June 30, 2010** valuation. The rates for reduced retirement were first used in the **June 30, 2010** 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 page 45. The rates for disability were first used in the **June 30, 2010** valuation.

The probabilities of withdrawal from service, death-in-service and disability are shown for sample ages on pages 43 and 45. The death-in-service and disability rates were first used in the **June 30, 2010** valuation. The withdrawal rates were first used in the **June 30, 2010** 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 (M.A.A.A.).

Summary of Actuarial Methods and Assumptions

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%	19.00%	14.00%	14.00%
1-2	16.00	13.00	6.50	6.50
2-3	8.00	9.00	3.50	3.50
3-4	6.50	8.00	3.00	3.00
4-5	5.00	5.00	3.00	3.00

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	4.93%	5.10%	3.14%	3.14%
30	4.39	5.10	2.75	2.75
35	3.53	4.59	2.09	2.09
40	2.75	3.74	1.43	1.43
45	2.06	2.89	0.88	0.88
50	1.51	2.04	0.44	0.44
55	1.10	1.19	0.17	0.17
60	0.89	0.34	0.11	0.11

Summary of Actuarial Methods and Assumptions

Salary Increase Assumptions For an Individual Member

Age	Age Based Salary Scale					
	MoDOT, Civilian Patrol and MPERS			Uniformed Patrol		
	Merit & Seniority	Base (Economic)	Increase Next Year	Merit & Seniority	Base (Economic)	Increase Next Year
20	8.00%	3.75%	11.75%	8.50%	3.75%	12.25%
25	5.66	3.75	9.41	6.16	3.75	9.91
30	3.30	3.75	7.05	3.80	3.75	7.55
35	2.05	3.75	5.80	2.55	3.75	6.30
40	1.45	3.75	5.20	1.95	3.75	5.70
45	0.95	3.75	4.70	1.45	3.75	5.20
50	0.60	3.75	4.35	1.10	3.75	4.85
55	0.38	3.75	4.13	0.88	3.75	4.63
60	0.30	3.75	4.05	0.80	3.75	4.55

Joint Life Retirement Values (8.25% Interest)

Sample Attained Ages	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
	50	\$139.96	\$136.07	30.74
55	135.25	130.02	26.15	30.74
60	128.88	122.23	21.80	26.15
65	120.71	112.78	17.81	21.80
70	110.83	101.31	14.17	17.81
75	98.83	87.62	10.86	14.17
80	84.68	72.85	8.04	10.86

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.

Summary of Actuarial Methods and Assumptions

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

Age	<u>MoDOT, Civilian Patrol and MPERS</u>				<u>Uniformed Patrol</u>	
	Male		Female		Male	Female
	Normal	Early	Normal	Early	Normal	
50	30.00%	0.00%	30.00%	0.00 %	40.00%	40.00%
55	20.00	3.00	30.00	3.00	25.00	25.00
60	20.00	10.00	20.00	5.00	100.00	100.00
65	40.00	0.00	40.00	0.00	100.00	100.00
70	50.00	0.00	50.00	0.00	100.00	100.00

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

Age	<u>MoDOT, Civilian Patrol and MPERS</u>		<u>Uniformed Patrol</u>	
	Male	Female	Male	Female
25	0.02%	0.05%	0.01%	0.01%
30	0.03	0.10	0.02	0.02
35	0.06	0.14	0.02	0.02
40	0.10	0.19	0.05	0.05
45	0.23	0.32	0.09	0.09
50	0.42	0.42	0.19	0.19
55	0.54	0.66	0.35	0.35
60	1.00	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	530	3,203	3,733	754	4,487
Year 2000 Plan (also closed)	576	2,662	3,238	422	3,660
Year 2000 Plan - 2011 Tier (open)	40	7	47	37	84
Total Active Members	1,146	5,872	7,018	1,213	8,231
<i>Total Active Members Prior Year</i>	<i>1,144</i>	<i>6,208</i>	<i>7,352</i>	<i>1,105</i>	<i>8,457</i>
Retiree -- Regular Pensioners					
Closed Plan	429	3,711	4,140	799	4,939
Year 2000 Plan (also closed)	383	2,285	2,668	1	2,669
Year 2000 Plan - 2011 Tier (open)	0	0	0	0	0
Total Regular Pensioners	812	5,996	6,808	800	7,608
Self Insured Disability Pensioners	6	63	69	3	72
Fully Insured Disability Pensioners	8	86	94	1	95
Terminated Vested Members	222	1,466	1,688	158	1,846
Total	2,194	13,483	15,677	2,175	17,852
Active Member Valuation Payroll	\$42,793,273	\$246,425,127	\$289,218,400	\$72,420,601	\$361,639,001
Active Member Valuation Payroll Prior Year	\$41,931,141	\$260,802,058	\$302,733,199	\$67,178,053	\$369,911,252
Unfunded Actuarial Accrued Liability	N/A	N/A	\$1,405,157,141	\$465,142,010	\$1,870,299,151

Member data for actuarial valuation is as of May 31, 2011

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							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	-	1	96	5	-	-	-	102	4,093,654
35-39	-	2	194	125	1	-	-	322	14,750,882
40-44	-	3	178	300	98	4	-	583	27,644,732
45-49	-	1	138	198	206	187	4	734	35,354,988
50-54	-	-	131	164	154	267	102	818	39,370,100
55-59	-	1	71	122	107	84	55	440	20,153,707
60-64	-	-	37	51	37	31	21	177	8,290,323
65-69	-	-	4	4	5	4	3	20	813,556
70+	-	-	1	2	1	-	3	7	366,693
Totals	0	8	850	971	609	577	188	3,203	\$150,838,635

Average Age 48.3 years
Average Service 19.7 years
Average Pay \$47,093

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	65	2	-	-	-	-	-	67	2,011,147
25-29	248	142	3	-	-	-	-	393	14,075,165
30-34	166	286	67	-	-	-	-	519	19,994,550
35-39	164	187	66	-	-	-	-	417	14,991,936
40-44	147	167	50	-	-	-	-	364	12,603,117
45-49	119	145	60	1	-	-	-	325	11,305,614
50-54	103	136	54	1	1	5	4	304	10,652,245
55-59	56	92	31	1	2	2	-	184	6,535,503
60-64	16	34	17	1	1	1	1	71	2,528,476
65-69	2	9	5	1	-	-	-	17	711,845
70+	-	1	-	-	-	-	-	1	31,071
Totals	1,086	1,201	353	5	4	8	5	2,662	\$95,440,669

Average Age 40.0 years
Average Service 6.1 years
Average Pay \$35,853

Member data for actuarial valuation is as of May 31, 2011.

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							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	2	-	-	-	-	-	-	2	40,260
25-29	3	-	-	-	-	-	-	3	65,268
30-34	-	-	-	-	-	-	-	0	0
35-39	-	-	-	-	-	-	-	0	0
40-44	2	-	-	-	-	-	-	2	40,295
45-49	-	-	-	-	-	-	-	0	0
50-54	-	-	-	-	-	-	-	0	0
55-59	-	-	-	-	-	-	-	0	0
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	7	0	0	0	0	0	0	7	\$145,823

Average Age 29.9 years
Average Service 0.3 years
Average Pay \$20,832

Member data for actuarial valuation is as of May 31, 2011.

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	2	-	-	-	-	-	-	2	40,260
25-29	3	-	-	-	-	-	-	3	65,268
30-34	-	-	-	-	-	-	-	0	0
35-39	-	-	-	-	-	-	-	0	0
40-44	2	-	-	-	-	-	-	2	40,295
45-49	-	-	-	-	-	-	-	0	0
50-54	-	-	-	-	-	-	-	0	0
55-59	-	-	-	-	-	-	-	0	0
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	7	0	0	0	0	0	0	7	\$145,823

Average Age 44.9 years
Average Service 19.7 years
Average Pay \$68,786

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	38	-	-	-	-	-	-	38	1,531,254
25-29	96	32	-	-	-	-	-	128	5,596,189
30-34	32	95	19	-	-	-	-	146	6,980,272
35-39	11	47	21	-	-	-	-	79	3,721,537
40-44	6	10	6	-	-	-	-	22	986,982
45-49	2	3	2	-	-	-	-	7	305,407
50-54	-	1	-	-	-	-	-	1	50,725
55-59	-	1	-	-	-	-	-	1	48,771
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	185	189	48	0	0	0	0	422	\$19,221,137

Average Age 30.7 years
Average Service 5.0 years
Average Pay \$45,058

Member data for actuarial valuation is as of May 31, 2011.

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							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	19	-	-	-	-	-	-	19	685,322
25-29	13	-	-	-	-	-	-	13	468,905
30-34	3	-	-	-	-	-	-	3	108,209
35-39	1	-	-	-	-	-	-	1	36,070
40-44	1	-	-	-	-	-	-	1	36,070
45-49	-	-	-	-	-	-	-	0	0
50-54	-	-	-	-	-	-	-	0	0
55-59	-	-	-	-	-	-	-	0	0
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	37	0	0	0	0	0	0	37	\$1,334,576

Average Age 25.8 years
Average Service 0.5 years
Average Pay \$36,070

Member data for actuarial valuation is as of May 31, 2011.

Active Members By Attained Age and Years of Service

Civilian 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	-	-	13	1	-	-	-	14	485,494
35-39	-	-	27	16	-	-	-	43	1,846,296
40-44	-	2	29	33	16	2	-	82	3,384,496
45-49	-	-	24	39	27	24	2	116	5,013,175
50-54	-	-	20	27	35	33	17	132	5,456,973
55-59	-	-	22	18	15	14	17	86	3,708,128
60-64	-	-	10	14	17	4	6	51	1,949,774
65-69	-	-	1	3	1	-	-	5	143,191
70+	-	-	-	-	1	-	-	1	34,619
Totals	0	2	146	151	112	77	42	530	\$22,022,146

Average Age 49.6 years
Average Service 19.9 years
Average Pay \$41,551

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	14	-	-	-	-	-	-	14	389,905
25-29	68	25	-	-	-	-	-	93	3,338,980
30-34	49	58	10	-	-	-	-	117	4,403,754
35-39	25	31	12	-	-	-	-	68	2,409,660
40-44	29	36	4	-	-	-	-	69	2,286,877
45-49	26	29	12	-	-	-	-	67	2,314,513
50-54	18	28	6	-	-	3	1	56	1,900,728
55-59	19	19	6	-	2	1	1	48	1,554,448
60-64	6	20	4	-	1	-	-	31	939,568
65-69	5	6	1	-	-	-	-	12	359,507
70+	-	1	-	-	-	-	-	1	24,576
Totals	259	253	55	0	3	4	2	576	\$19,922,516

Average Age 40.8 years
Average Service 6.0 years
Average Pay \$34,588

Member data for actuarial valuation is as of May 31, 2011.

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							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	8	-	-	-	-	-	-	8	171,891
25-29	12	-	-	-	-	-	-	12	251,260
30-34	5	-	-	-	-	-	-	5	107,603
35-39	2	-	-	-	-	-	-	2	46,792
40-44	5	-	-	-	-	-	-	5	114,971
45-49	3	-	-	-	-	-	-	3	52,382
50-54	3	-	-	-	-	-	-	3	64,216
55-59	1	-	-	-	-	-	-	1	19,798
60-64	1	-	-	-	-	-	-	1	19,698
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	40	0	0	0	0	0	0	40	\$848,611

Average Age **33.7 years**
Average Service **0.3 years**
Average Pay **\$21,215**

Member data for actuarial valuation is as of May 31, 2011.

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
2002	8,695	312,747,492	35,969	-0.10%
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	<u>0.40%</u>
Ten-Year Average				2.00%

Member data for actuarial valuation is as of May 31, 2011.

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) Retirees and Beneficiaries	(2) Active and Inactive Members	Present Valuation Assets	Portion of Present Values Covered by Present Assets		
				(1)	(2)	Total
-----Millions-----						
1999	\$1,132	\$921	\$1,243	100%	12%	61%
2000	1,238	951	1,423	100	19	65
2001	1,375	926	1,521	100	16	66
2002 *	1,470	888	1,451	99	0	62
2003	1,555	863	1,364	88	0	56
2004	1,626	867	1,332	82	0	53
2005 *	1,669	958	1,417	85	0	54
2006	1,734	1,007	1,521	88	0	46
2007 *	1,810	1,087	1,686	93	0	58
2008	1,873	1,147	1,784	95	0	59
2009	1,947	1,166	1,471	76	0	47
2010 *	2,034	1,225	1,376	68	0	42
2011	2,045	1,253	1,427	70	0	43

* New assumptions 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)	\$1,883,022,352
Normal Cost	49,871,712
Contributions	(150,452,096)
Interest	151,200,403
Net Change in LTD Assets	-
Expected UAAL Before Any Changes	1,933,642,371
Effect of Changes in Assumptions & Methods	8,787,924
Effect of Interest Adjustment*	(726,383)
Expected UAAL After Changes	1,941,703,912
End of Year UAAL (at June 30)	1,870,299,151
Gain/(Loss) for Year	\$71,404,761
Gain/(Loss) as a percent of actuarial accrued liabilities at start of year (\$3,258.9 million)	2.2%

Valuation Date June 30	Experience Gain (Loss) as % of Beginning Accrued Liability
1999	(7.7)%
2000	(.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%

Schedule of Retirees and Beneficiaries Added and Removed

Valuation Date	Added to Rolls		Removed from Rolls		Rolls End of Year		Average Annual Allowances	% Increase	
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		in Annual Allowance	in Average Annual Allowance
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%
FY2003									
Retirees	249	\$6,319,872	101	\$2,062,469	4,691	\$116,243,532	\$24,780	6.24%	2.89%
Beneficiaries	121	1,627,820	91	650,474	1,710	16,568,589	9,689	9.58%	7.66%
Disabilities	20	180,624	22	43,088	155	1,873,102	12,085	36.86%	38.62%
FY2002									
Retirees	303	\$8,089,425	134	\$2,193,413	4,543	\$109,416,172	\$24,085	7.59%	3.59%
Beneficiaries	119	1,768,570	76	369,662	1,680	15,120,376	9,000	11.53%	8.68%
Disabilities	17	168,853	41	180,231	157	1,368,640	8,717	-11.88%	1.59%

*Most new disabilities are covered / paid by the Standard Insurance Co.
Data of this chart is as of June 30, 2011.

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, 2011

Plan Provision	Closed Plan	Year 2000 Plan	Year 2000 Plan - 2011 Tier
Membership Eligibility	<ul style="list-style-type: none"> Members who work in a position normally requiring at least 1,040 hours of work a year. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. <p><u>Uniformed Members Only:</u></p> <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Age 62 with 5 years of service. "Rule of 80"/minimum age 48. <p><u>Uniformed Members Only:</u></p> <ul style="list-style-type: none"> "Rule of 80"/minimum age 48. Age 60 & active - mandatory with 5 years of service. 	<ul style="list-style-type: none"> Age 67 with 10 years of service. "Rule of 90"/minimum age 55. <p><u>Uniformed Members Only:</u></p> <ul style="list-style-type: none"> Age 55 & active with 10 years of service. Age 60 & active - mandatory, no minimum service.
Early (Reduced) Retirement Eligibility	<ul style="list-style-type: none"> Age 55 with 10 years creditable service. 	<ul style="list-style-type: none"> Age 57 with 5 years creditable service. 	<ul style="list-style-type: none"> Age 62 with 10 years of creditable service. (active only)
Benefit Life Benefit Temporary Benefit	<p>1.6% x FAP** x service (Base benefit is increased by 33 1/3% for uniformed patrol members only.)</p> <p>Not available.</p>	<p>1.7% x FAP** x service</p> <p>0.8% x FAP** x service Until age 62, only if retiring under "Rule of 80".</p> <p><u>Uniformed Members Only:</u> Until age 62, if retiring under "Rule of 80" or at mandatory age 60.</p>	<p>1.7% x FAP** x service</p> <p>0.8% x FAP** x service Until age 62, only if retiring under "Rule of 90".</p> <p><u>Uniformed Members Only:</u> Until age 62, if retiring under either normal retirement eligibility provision.</p>
Vesting	5 years of service.	5 years of service.	10 years of service.
COLA (Cost-of-Living Allowance)	<ul style="list-style-type: none"> 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%. 	<ul style="list-style-type: none"> Annual COLA is equal to 80% of the change in the CPI-U with a maximum rate of 5%. 	<ul style="list-style-type: none"> 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, 2011

Plan Provision	Closed Plan	Year 2000 Plan	Year 2000 Plan - 2011 Tier
Survivor Benefit (Death before retirement) Non Duty-Related Death Duty-Related Death	<ul style="list-style-type: none"> 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 or children no less than 50% of final average pay (no minimum service requirement). 	<ul style="list-style-type: none"> 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 or children no less than 50% of final average pay (no minimum service requirement). 	<ul style="list-style-type: none"> 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 or children no less than 50% of final average pay (no minimum service requirement).
Optional Forms of Payment	Payment options include: <ul style="list-style-type: none"> Life Income Annuity Unreduced Joint & 50% Survivor Joint & 100% Survivor 60 or 120 Guaranteed Payments BackDROP 	Payment options include: <ul style="list-style-type: none"> Life Income Annuity Joint & 50% Survivor Joint & 100% Survivor 120 or 180 Guaranteed Payments BackDROP 	Payment options include: <ul style="list-style-type: none"> 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 8, 2011, Governor Jay Nixon signed into law SS for SCS for House Bill 282, which contained the following provisions:

Transfer of Funds with Reciprocal Service

This bill allows MPERS and the Missouri State Employees' Retirement System (MOSERS) to transfer funds between the two systems in connection with Section 104.602 or Section 104.1021.8 reciprocal service credit transfers occurring on or after September 1, 2011.

When a request for the transfer of service occurs, the present value of the accrued benefit shall be determined using the actuarial assumptions of the sending system used in that system's last regular valuation assuming active member status and using the unit credit actuarial cost method. However, in no event shall the payment amount be less than the sum of the member's accumulated contributions and interest, plus any purchased service payments from the member held on deposit by the sending system.

If the member had received a refund of accumulated contributions from the sending system and forfeited service credit with that system, the member would need to reestablish that service with the sending system by again becoming an active member of that system and satisfying requirements otherwise stipulated for reestablishing service credit.

The service transfer will not be deemed complete until the sending system makes payment to the receiving system. The payment shall be made within 90 days of the date that a completed transfer request is submitted by the member.

When the transfer payment includes an amount identified as corresponding to a member's accumulated contributions, the accumulated contributions portion shall be identified, and further, the accumulated contributions balance as of the preceding July 1 shall be identified. The receiving system shall be responsible for crediting interest according to the terms of the receiving plan.

In addition, the systems shall coordinate their plan administration for reciprocal transfers to give full effect to the transfer including the transfer and acceptance of corresponding Division of Benefit Orders. The member or survivor obtaining a reciprocal transfer of service shall satisfy all requirements under Section 104.602 or Section 104.1021.8 to obtain a transfer of service and shall satisfy the requirements under Section 104.1091 with the receiving system to reestablish forfeited service previously accrued at either system.

Quarterly Investment Reporting

This provision requires all public employee defined benefit retirement plans covered under Chapter 105, RSMo., to submit quarterly investment reports to the Joint Committee on Public Employee Retirement (JCPER) in the form and manner requested by the committee. If the plan fails to submit this report, the committee may subpoena witnesses, take testimony under oath, and compel the production of records regarding this information, pursuant to its authority under Section 21.561. (MPERS already submits these quarterly reports.)



Expenditures made by retirees of state and local government provide a steady economic stimulus to Missouri communities and the state economy. In 2006, over 131,000 residents of Missouri received a total of \$2.54 billion in pension benefits from state and local pension plans, with \$2.42 billion paid from plans within the state and the remainder originating from plans in other states.

In the state of Missouri, expenditures stemming from state and local pensions supported:

- 28,054 jobs that paid \$1.5 billion in wages and salaries.
- \$3.7 billion in total economic output.
- \$540.1 million in federal, state, and local tax revenues.



MPERS' Retirees Living in Missouri

**Numbers of MPERS Retirees
Living in Missouri**

5,490

**Percent of MPERS Retirees
Living in Missouri**

95%

**Amount Paid in FY2011
to MPERS Retirees
Living in Missouri**

\$189,719,629

Source of Information:

National Institute on Retirement Security (NIRS) - Testimony before a US Senate Committee Hearing "The Power of Pensions: Building a Strong Middle Class and Strong Economy" July 12, 2011

Almeida, B. and I. Boivie. 2009. *Pensionomics: Measuring the Economic Impact of State and Local Pension Plans (Missouri Key Findings)*. Washington, DC: National Institute on Retirement Security.

STATISTICAL SUMMARY

Changes in Net Assets

The chart on page 62 details a 10-year history of the additions (revenues) and deductions (expenses) of MPERS.

The chart on page 63 details a 10-year history of benefit payments by type.

Plan Membership

Overall, MPERS' membership decreased by 13. Retired members and their beneficiaries increased by 182, terminated-vested members increased by 65, and active members decreased by 260.

The charts beginning on page 64 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 Assets

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

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<u>Additions</u>										
Employer Contributions	\$ 77,440,468	\$76,806,313	\$86,724,914	\$102,240,145	\$111,271,679	\$121,264,532	\$123,335,151	\$122,599,301	\$124,052,534	\$150,022,169
Employee Contributions ⁽¹⁾	0	0	0	0	0	0	0	0	0	45,361
Transfers from Other Systems ⁽²⁾	0	0	174,140	0	0	0	0	0	0	17,609,276
Other Contributions	640,254	2,584,257	668,525	364,680	271,038	529,926	1,192,527	444,000	424,172	453,984
Net Investment Income	(88,252,400)	36,526,003	180,910,907	144,641,068	212,206,238	283,549,424	(42,915,886)	(426,265,311)	166,307,054	279,612,052
Other Income	0	0	33,851	31,104	41,542	31,580	31,546	33,571	33,145	33,141
Total Additions to Plan Net Assets	(10,171,678)	115,916,573	268,512,337	247,276,997	323,790,497	405,375,462	81,643,338	(303,188,439)	290,816,905	447,775,983
<u>Deductions</u>										
Benefit Payments	133,498,818	144,334,345	154,987,027	157,742,337	164,997,406	175,970,479	185,801,362	192,013,250	196,721,274	202,153,768
Administrative Expenses	1,334,555	1,451,855	1,639,133	1,916,592	1,927,594	2,120,764	2,371,215	2,339,501	2,512,181	2,658,849
Total Deductions from Plan Net Assets	134,833,373	145,786,200	156,626,160	159,658,929	166,925,000	178,091,243	188,172,577	194,352,751	199,233,455	204,812,617
Change in Net Assets	\$(145,005,051)	\$(29,869,627)	\$111,886,177	\$87,618,068	\$156,865,497	\$227,284,219	\$(106,529,239)	\$(497,541,190)	\$91,583,450	\$242,963,366

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

(2) 2004 transfer from MOSERS for Highway Safety 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	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<u>Age and Service Benefits:</u>										
Retiree and Survivor Annuity Payments	121,786,745	131,689,970	138,767,316	145,118,809	151,647,091	159,145,368	167,654,271	175,588,494	183,103,253	188,171,369
BackDROP Payments	10,771,393	11,696,862	14,318,622	8,880,770	9,721,059	13,177,432	14,631,932	12,859,452	10,358,181	10,792,932
<u>Disability Benefits:</u>										
Long-Term Disability	515,680	537,513	555,434	475,948	386,026	288,908	223,501	179,239	137,624	101,875
Work-Related Disability ⁽¹⁾	0	0	633,299	718,248	747,723	703,159	728,507	692,043	664,469	648,320
Normal Disability ⁽¹⁾	0	0	302,356	295,776	244,208	220,490	207,417	186,349	163,485	167,427
Insured Disability ⁽²⁾	0	0	0	1,837,786	1,796,299	1,905,122	1,835,734	1,847,673	1,759,262	1,696,845
Death Benefits	425,000	410,000	410,000	415,000	455,000	530,000	520,000	660,000	535,000	575,000
Total Benefits	<u>133,498,818</u>	<u>144,334,345</u>	<u>154,987,027</u>	<u>157,742,337</u>	<u>164,997,406</u>	<u>175,970,479</u>	<u>185,801,362</u>	<u>192,013,250</u>	<u>196,721,274</u>	<u>202,153,768</u>

⁽¹⁾ Prior to FY04, work-related and normal disabilities were reported as retiree benefits.

⁽²⁾ Outsourced LTD program began 07/01/04.

Schedule of Retired Members By Type of Benefit

All Members*

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	21	56	4	24	71	139	315
201 - 400	119	132	3	0	11	254	519
401 - 600	144	116	1	1	7	245	514
601 - 800	146	61	5	1	1	206	420
801 - 1000	210	39	0	1	1	164	415
1001 - 1200	241	20	3	2	0	136	402
1201 - 1400	329	10	3	3	1	100	446
1401 - 1600	291	6	1	3	0	94	395
1601 - 1800	345	2	0	5	0	73	425
1801 - 2000	367	5	0	5	0	69	446
2001 - 2200	311	1	0	3	0	65	380
2201 - 2400	337	1	0	1	0	46	385
2401 - 2600	345	0	0	1	0	37	383
2601 - 2800	309	0	0	2	0	48	359
2801 - 3000	230	1	0	0	0	31	262
> 3000	1,576	0	0	2	0	148	1,726
TOTALS	5,321	450	20	54	92	1,855	7,792

* This chart includes six retirement system staff retirees

MoDOT

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	17	40	4	23	63	129	276
201 - 400	90	108	3	0	11	236	448
401 - 600	107	98	1	1	5	218	430
601 - 800	103	53	5	1	1	180	343
801 - 1000	165	32	0	1	1	146	345
1001 - 1200	202	19	3	2	0	120	346
1201 - 1400	281	9	3	3	1	83	380
1401 - 1600	257	6	1	3	0	72	339
1601 - 1800	307	2	0	5	0	63	377
1801 - 2000	306	5	0	3	0	54	368
2001 - 2200	266	1	0	1	0	42	310
2201 - 2400	276	1	0	1	0	28	306
2401 - 2600	302	0	0	1	0	26	329
2601 - 2800	271	0	0	2	0	32	305
2801 - 3000	208	1	0	0	0	24	233
> 3000	898	0	0	1	0	114	1,013
TOTALS	4,056	375	20	48	82	1,567	6,148

Schedule of Retired Members By Type of Benefit

Uniformed Patrol

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	0	0	0	0	0	1	1
201 - 400	0	0	0	0	0	2	2
401 - 600	13	0	0	0	0	8	21
601 - 800	9	0	0	0	0	9	18
801 - 1000	5	0	0	0	0	4	9
1001 - 1200	5	0	0	0	0	4	9
1201 - 1400	2	0	0	0	0	5	7
1401 - 1600	2	0	0	0	0	12	14
1601 - 1800	1	0	0	0	0	5	6
1801 - 2000	4	0	0	1	0	12	17
2001 - 2200	5	0	0	1	0	18	24
2201 - 2400	3	0	0	0	0	16	19
2401 - 2600	3	0	0	0	0	10	13
2601 - 2800	1	0	0	0	0	13	14
2801 - 3000	8	0	0	0	0	6	14
> 3000	585	0	0	1	0	31	617
TOTALS	646	0	0	3	0	156	805

Civilian Patrol

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	3	16	0	1	8	9	37
201 - 400	29	24	0	0	0	16	69
401 - 600	24	18	0	0	2	19	63
601 - 800	34	8	0	0	0	17	59
801 - 1000	40	7	0	0	0	14	61
1001 - 1200	33	1	0	0	0	12	46
1201 - 1400	46	1	0	0	0	12	59
1401 - 1600	32	0	0	0	0	10	42
1601 - 1800	37	0	0	0	0	5	42
1801 - 2000	57	0	0	1	0	3	61
2001 - 2200	40	0	0	1	0	5	46
2201 - 2400	58	0	0	0	0	2	60
2401 - 2600	40	0	0	0	0	1	41
2601 - 2800	37	0	0	0	0	3	40
2801 - 3000	13	0	0	0	0	1	14
> 3000	90	0	0	0	0	3	93
TOTALS	613	75	0	3	10	132	833

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 +
2002	Average Benefit	\$458	656	847	1,204	2,070	2,644	2,669	3,025
2002	Average FAP	\$2,216	1,642	2,163	2,469	3,115	3,788	4,071	4,106
2002	Current Retirees	1	16	10	26	54	59	31	18
2003	Average Benefit	\$374	522	765	1,141	2,062	2,410	2,552	3,478
2003	Average FAP	\$2,122	1,757	1,827	2,374	2,960	3,358	3,709	3,796
2003	Current Retirees	13	8	10	20	46	36	29	14
2004	Average Benefit	\$366	624	1,055	1,229	2,144	2,548	2,455	3,584
2004	Average FAP	\$3,034	2,512	2,816	2,564	2,879	3,536	3,689	4,642
2004	Current Retirees	10	15	19	23	64	58	25	8
2005	Average Benefit	\$392	466	805	1,233	2,297	2,362	2,781	3,263
2005	Average FAP	\$2,782	1,951	2,589	2,675	3,372	3,304	3,988	3,937
2005	Current Retirees	11	18	18	9	50	22	19	7
2006	Average Benefit	\$364	616	876	1,234	2,364	2,572	3,085	3,393
2006	Average FAP	\$3,109	2,423	2,748	2,929	3,393	3,378	4,093	4,086
2006	Current Retirees	13	16	16	24	58	32	10	7
2007	Average Benefit	\$278	518	783	1,342	2,377	2,860	2,974	3,116
2007	Average FAP	\$2,139	2,414	2,357	2,932	3,345	3,664	3,970	3,938
2007	Current Retirees	22	24	21	30	66	37	15	7
2008	Average Benefit	\$271	462	890	1,677	2,366	3,045	2,511	3,178
2008	Average FAP	\$2,261	2,386	2,995	3,404	3,455	3,926	3,513	4,463
2008	Current Retirees	30	29	26	36	58	51	18	5
2009	Average Benefit	\$302	595	972	1,823	2,367	2,837	3,161	3,247
2009	Average FAP	\$2,545	2,926	3,472	3,493	3,537	3,697	3,920	4,539
2009	Current Retirees	28	17	15	41	43	46	16	5
2010	Average Benefit	\$280	789	1,074	1,757	2,467	3,017	2,773	3,016
2010	Average FAP	\$2,388	2,726	3,335	3,525	3,622	4,014	4,015	4,008
2010	Current Retirees	26	26	17	37	62	39	3	3
2011	Average Benefit	\$666	628	978	1,820	2,669	3,040	2,994	3,500
2011	Average FAP	\$2,851	2,691	3,144	3,590	3,931	3,950	3,863	4,167
2011	Current Retirees	26	36	26	40	63	35	6	3

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+
2002	Average Benefit	\$0	817	2,058	3,737	4,409	5,323	5,665	7,370
2002	Average FAP	\$0	2,564	3,580	4,566	4,784	5,339	5,386	5,624
2002	Current Retirees	0	1	1	1	9	11	9	1
2003	Average Benefit	\$428	555	0	0	4,032	5,105	5,022	0
2003	Average FAP	\$525	1,514	0	0	4,415	5,247	4,929	0
2003	Current Retirees	2	1	0	0	11	6	7	0
2004	Average Benefit	\$662	461	1,678	0	3,697	4,530	5,014	5,571
2004	Average FAP	\$2,295	992	3,000	0	4,372	4,844	5,171	5,078
2004	Current Retirees	1	1	1	0	8	8	6	1
2005	Average Benefit	\$0	706	1,442	2,860	3,936	4,101	5,655	6,026
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	\$447	0	1,467	0	3,624	4,414	5,017	0
2006	Average FAP	\$1,628	0	3,007	0	4,884	5,214	5,004	0
2006	Current Retirees	1	0	2	0	6	10	1	0
2007	Average Benefit	\$596	756	999	0	3,689	4,831	5,408	0
2007	Average FAP	\$2,292	2,260	2,475	0	5,287	5,684	5,514	0
2007	Current Retirees	1	3	1	0	5	12	5	0
2008	Average Benefit	\$485	0	1,857	0	4,299	4,402	4,933	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	721	0	2,041	4,240	4,386	4,810	6,012
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	878	1,202	0	3,921	5,230	6,384	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	\$491	892	0	2,284	4,072	4,982	6,035	0
2011	Average FAP	\$2,245	3,051	0	4,595	6,117	6,389	6,746	0
2011	Current Retirees	1	2	0	2	10	7	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+
2002	Average Benefit	\$198	360	0	1,058	2,096	2,044	2,226	0
2002	Average FAP	\$1,767	1,525	0	2,129	2,827	3,215	3,209	0
2002	Current Retirees	2	5	0	5	7	5	4	0
2003	Average Benefit	\$437	488	753	1,087	2,139	1,963	2,155	2,314
2003	Average FAP	\$2,221	1,405	2,425	2,490	2,720	2,855	3,611	3,001
2003	Current Retirees	2	3	3	3	10	15	3	3
2004	Average Benefit	\$258	457	635	1,199	1,900	2,417	2,487	3,556
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	\$252	422	755	1,066	2,671	3,716	1,929	3,684
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	\$174	479	657	1,109	2,490	2,925	3,150	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	\$294	488	559	1,174	2,565	2,670	2,518	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	\$245	537	781	1,175	1,818	2,831	3,856	0
2008	Average FAP	\$2,186	2,609	2,551	2,658	2,753	3,756	4,151	0
2008	Current Retirees	6	7	7	5	8	12	1	0
2009	Average Benefit	\$246	344	551	0	2,510	2,551	2,232	2,126
2009	Average FAP	\$2,206	1,874	2,135	0	3,690	3,333	2,865	2,679
2009	Current Retirees	5	6	3	0	11	9	3	2
2010	Average Benefit	\$367	859	885	1,161	3,125	2,442	4,031	0
2010	Average FAP	\$2,506	2,437	2,795	2,625	4,289	3,188	5,179	0
2010	Current Retirees	9	4	4	8	4	3	2	0
2011	Average Benefit	\$582	525	747	2,051	2,564	2,648	0	0
2011	Average FAP	\$2,550	2,269	2,561	3,676	4,190	3,843	0	0
2011	Current Retirees	6	8	7	11	12	8	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+
2003	Average Benefit	\$0	0	0	0	2,811	0	0	0
2003	Average FAP	\$0	0	0	0	3,232	0	0	0
2003	Current Retirees	0	0	0	0	1	0	0	0
2006	Average Benefit	\$0	0	0	0	0	3,360	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	1,066	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	4,384	0	7,173
2009	Average FAP	\$0	0	0	0	0	5,922	0	9,989
2009	Current Retirees	0	0	0	0	0	1	0	1

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	%
2002	6,590	75.70	2,106	24.19	10	0.11	8,706	100
2003	6,716	75.50	2,169	24.39	10	0.11	8,895	100
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

Data for this chart is as of June 30, 2011.

Active Member Data

For the Year Ended June 30, 2011

By Age

Age	Total	Closed Plan			MPERS
		MoDOT	Civilian Patrol	Uniformed Patrol	
< 21	0	0	0	0	0
21 - 25	0	0	0	0	0
26 - 30	11	10	0	0	1
31 - 35	245	178	26	41	0
36 - 40	629	399	50	178	2
41 - 45	931	599	95	235	2
46 - 50	1,101	811	122	168	0
51 - 55	944	719	126	95	4
56 - 60	468	352	81	35	0
61 - 65	133	101	32	0	0
66 +	18	15	3	0	0
Total	4,480	3,184	535	752	9
Average Age		47	49	44	45

Year 2000 Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	3	3	0	0	0
21 - 25	275	156	40	79	0
26 - 30	684	443	108	131	2
31 - 35	720	496	97	127	0
36 - 40	526	397	65	63	1
41 - 45	406	323	67	15	1
46 - 50	412	346	62	3	1
51 - 55	292	235	56	1	0
56 - 60	188	155	32	1	0
61 - 65	73	45	28	0	0
66 +	14	6	8	0	0
Total	3,593	2,605	563	420	5
Average Age		39	40	30	36

Year 2000 Plan - 2011 Tier

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21 - 25	50	4	18	28	0
26 - 30	13	1	7	5	0
31 - 35	6	0	3	3	0
36 - 40	6	0	5	1	0
41 - 45	5	2	3	0	0
46 - 50	3	0	3	0	0
51 - 55	3	0	3	0	0
56 - 60	1	0	1	0	0
61 - 65	0	0	0	0	0
66 +	0	0	0	0	0
Total	87	7	43	37	0
Average Age		29	32	25	0

Active Member Data

For the Year Ended June 30, 2011

By Years of Service

Years of Service	Closed Plan				
	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
01 - 05	0	0	0	0	0
06 - 10	15	10	3	2	0
11 - 15	1,490	1,061	183	244	2
16 - 20	1,224	881	130	210	3
21 - 25	914	614	112	187	1
26 - 30	577	448	72	56	1
31 - 35	210	135	28	45	2
36 - 40	44	30	6	8	0
41 - 45	6	5	1	0	0
46 +	0	0	0	0	0
Total	4,480	3,184	535	752	9
Average Service		19	19	19	21

Years of Service	Year 2000 Plan				
	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	180	150	25	4	1
01 - 05	1,665	1,163	290	209	3
06 - 10	1,681	1,239	236	205	1
11 - 15	62	48	12	2	0
16 - 20	3	3	0	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	3,593	2,605	563	420	5
Average Service		5	5	5	4

Years of Service	Year 2000 Plan - 2011 Tier				
	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	87	7	43	37	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	87	7	43	37	0
Average Service		0	0	0	0

Terminated Vested Member Data

For the Year Ended June 30, 2011

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	3	3	0	0	0
31 - 35	61	45	11	4	1
36 - 40	245	174	29	42	0
41 - 45	365	271	37	57	0
46 - 50	422	341	48	33	0
51 - 55	328	277	40	11	0
56 - 60	131	111	20	0	0
61 - 65	23	17	5	1	0
66 +	0	0	0	0	0
Total	1,578	1,239	190	148	1
Average Age	0	47	47	43	34

Year 2000 Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21 - 25	0	0	0	0	0
26 - 30	38	27	11	0	0
31 - 35	61	50	5	6	0
36 - 40	62	56	5	1	0
41 - 45	39	35	3	1	0
46 - 50	34	29	4	1	0
51 - 55	29	28	1	0	0
56 - 60	19	17	2	0	0
61 - 65	4	4	0	0	0
66 +	0	0	0	0	0
Total	286	246	31	9	0
Average Age	0	41	37	35	0

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

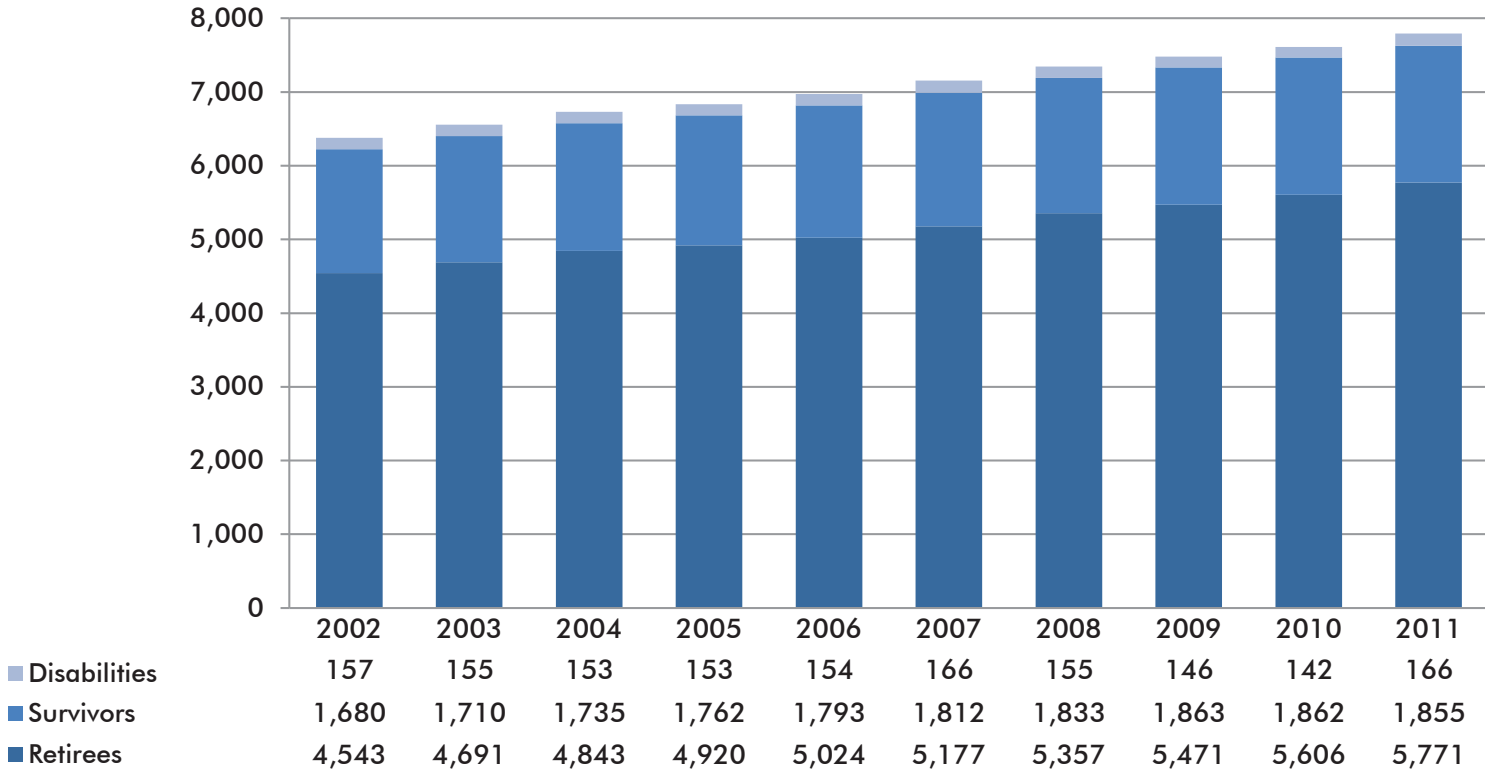
Terminated Vested Member Data

For the Year Ended June 30, 2011

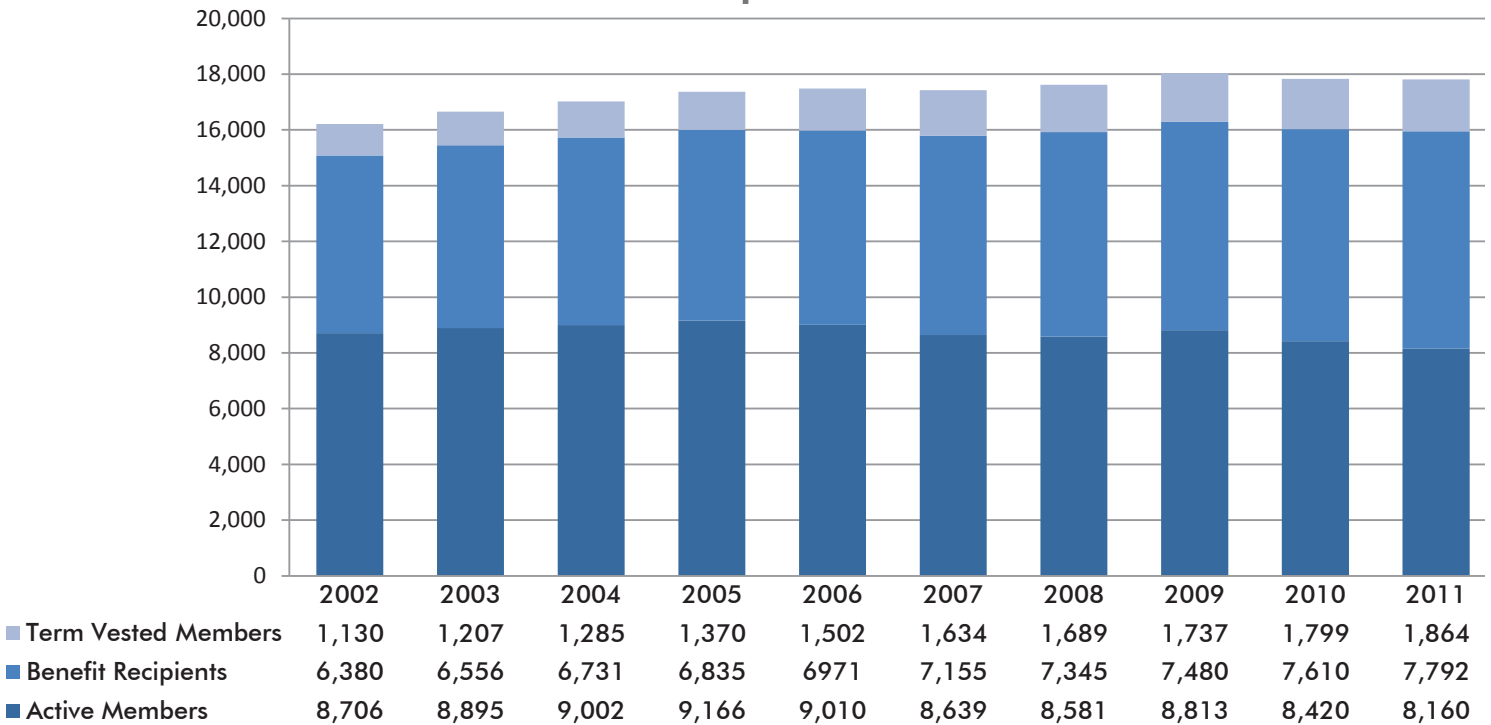
By Years of Service

Closed Plan					
Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
01 - 05	219	163	30	26	0
06 - 10	771	601	86	83	1
11 - 15	376	295	51	30	0
16 - 20	152	128	16	8	0
21 - 25	55	48	6	1	0
26 - 30	5	4	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	1,578	1,239	190	148	1
Average Service		10	10	9	8
Year 2000 Plan					
Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
01 - 05	97	82	14	1	0
06 - 10	175	151	16	8	0
11 - 15	7	6	1	0	0
16 - 20	1	1	0	0	0
21 - 25	4	4	0	0	0
26 - 30	2	2	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	286	246	31	9	0
Average Service		7	6	7	0
Year 2000 Plan - 2011 Tier					
Age	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

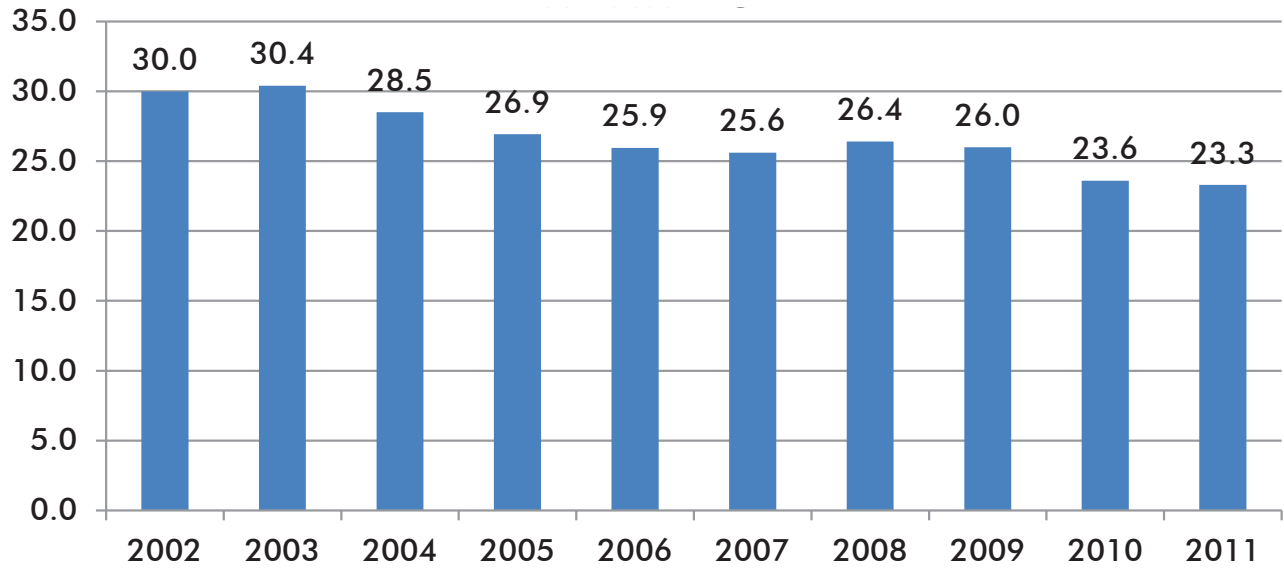
Benefit Recipients



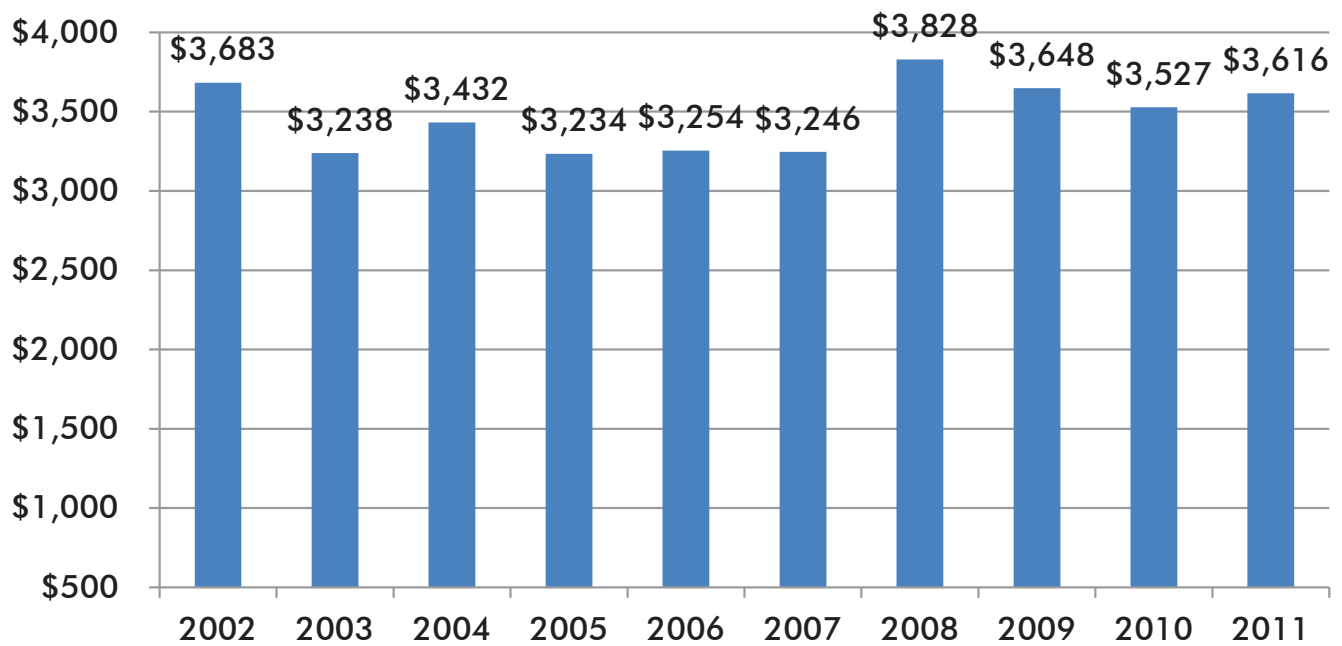
Membership Distribution



Average Years of Service for New Retirees



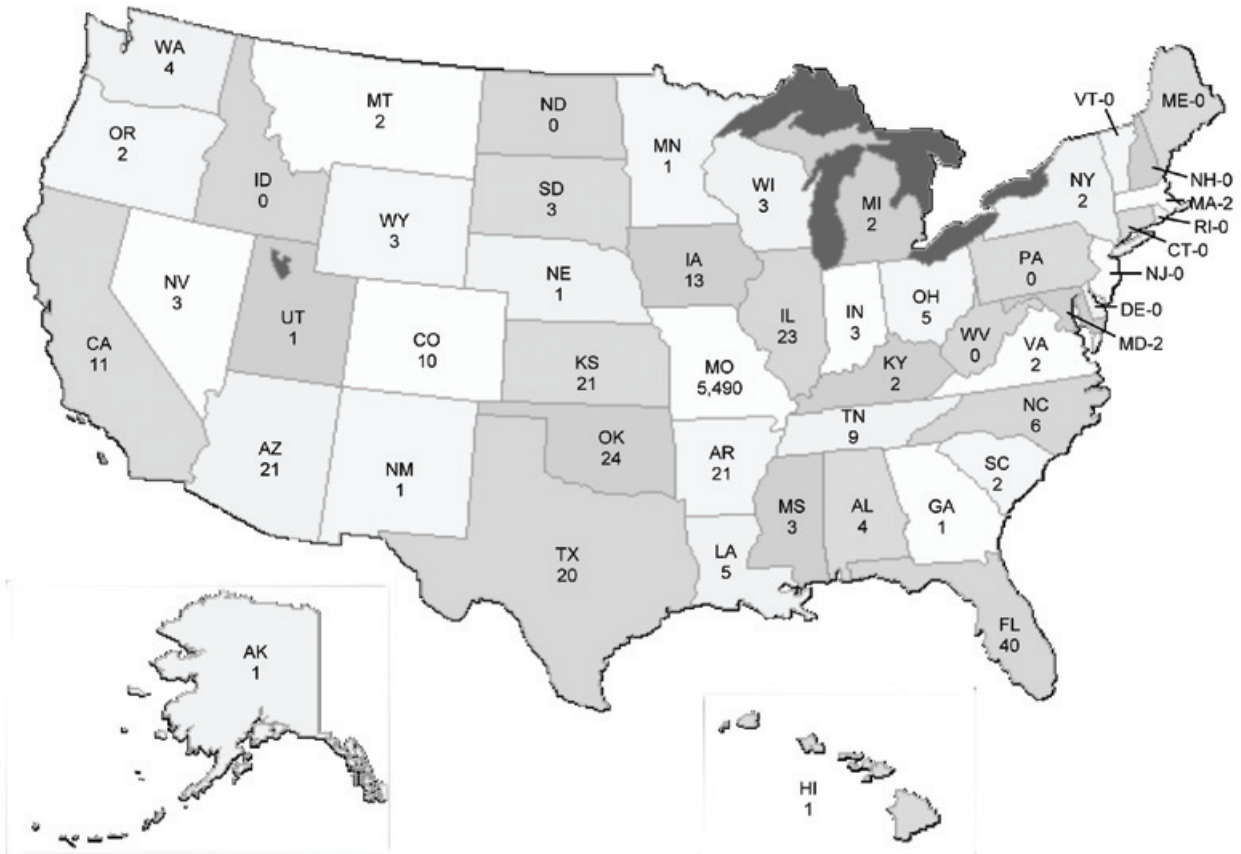
Final Average Pay for New Retirees



Location of MPERS Retirees

For the Year Ended June 30, 2011

This map represents the demographic distribution of retirees by state.



1 Retiree resides in England

Notes

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Notes