

*Missouri Department of Transportation and  
Highway Patrol Employees' Retirement System  
A Component Unit of the State of Missouri*

2008





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Highway Patrol Employees' Retirement System  
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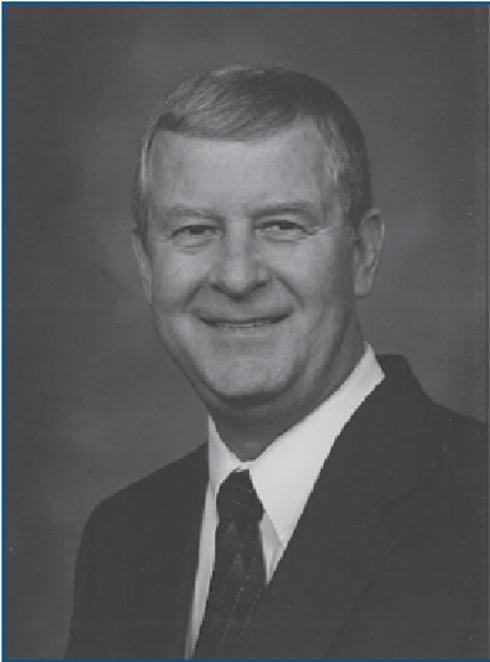


*Susie Dahl, Executive Director  
1913 William Street • PO Box 1930  
Jefferson City, MO 65102-1930  
(800) 270-1271 • (573) 298-6080*



*Comprehensive Annual Financial Report  
for the Fiscal Year Ended June 30, 2008*

## In Appreciation of Outstanding Leadership



Since February 1994, the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS) has been under the direction of Norm Robinson. On July 1, 2008, Norm retired from his position as MPERS' executive director. In honor of his many achievements, and in gratitude for his service, the MPERS Board of Trustees and staff dedicate this *2008 Comprehensive Annual Financial Report* to Norm Robinson.

Norm joined MoDOT in 1966, after graduating from the University of Missouri–Columbia with a bachelor's degree in business administration. He began his career as a systems analyst at the District 9 office, in Willow Springs, and subsequently became district office manager. He later worked in the Internal Review, Audit and Systems Division as senior systems analyst, internal review coordinator, and external audit coordinator. Afterwards, he was insurance supervisor in the Office of Risk Management.

From July 1986 to March 1994, Norm served on the Board of Trustees of the MoDOT and Patrol Medical and Life Insurance Plan. He is a trustee for the Jefferson City Fireman's Pension Fund and is on the

Heisinger Bluffs and Lenoir Woods Retirement Home Board of Directors. He is a past president of the Missouri Association of Public Employee Retirement Systems (MAPERS).

Under Norm's leadership, the operations of MPERS became more efficient and effective. He realized that as MPERS grew, additional resources would be required to provide continuity and direction to improve and advance the System. He was instrumental in gaining Board approval to add new staff positions, including chief investment officer, senior financial officer, and general counsel. These positions have been instrumental in the System's ability to invest and safeguard its \$1.8 billion in assets. Today, MPERS employs 13 full-time employees who administer retirement and disability benefits to over 17,000 members and their beneficiaries.

Recognition by the industry for financial management and investment excellence is the highest honor MPERS can earn for its membership. Two awards were received for the first time under Norm's leadership – the Government Finance Officers Association's *Certificate of Achievement for Excellence in Financial Reporting* and the Public Pension Coordinating Council's Public Pension Standards Award. Recently, MPERS was nominated for the "Mid-Sized Public Plan of the Year Award" by Money Management Letter, an investment publication for institutional investors.

In the early days, MPERS' office was a conference room in MoDOT Headquarters. Norm recognized the need to provide a comfortable, easily accessible environment for members to meet with staff to discuss their benefits. In June 2002, MPERS purchased the current office building on William Street and leases space to the MoDOT & Patrol Employee Benefits Section. This provides members and retirees a convenient one-stop shop for all their retirement needs – a significant customer service enhancement.

Norm exemplified the highest principles of quality and service by always treating MPERS' members in a personable, caring manner. He believed in providing outstanding service by anticipating members' needs, listening to their concerns, and responding to their requests. He brought to the System years of wisdom, a keen insight, and stellar integrity – qualities that were characteristic of his distinguished career. Norm is an inspiration to us all.

Congratulations on your retirement and thank you for a job well done!

# MoDOT and Patrol Employees' Retirement System



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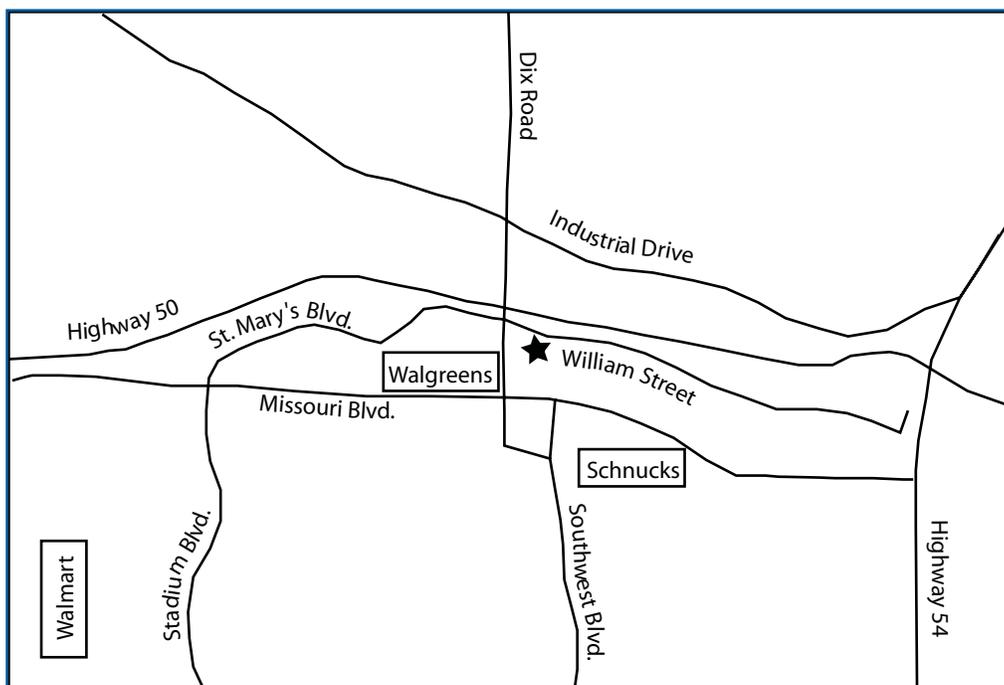
***Benefits***  
(573) 522-6111

**E-Mail Address**

[mpers@modot.mo.gov](mailto:mpers@modot.mo.gov)

**WebSite**

[www.mpers.org](http://www.mpers.org)



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# Notes



### *The Missouri State Animal*

*On May 31, 1995, the Missouri mule was designated as the official state animal. The mule is a hybrid, the offspring of a mare (female horse) and a jack (male donkey). After its introduction to the state in the 1820s, the mule quickly became popular with farmers and settlers because of its hardy nature. Missouri mules pulled pioneer wagons to the Wild West during the 19th century and played a crucial role in moving troops and supplies in World Wars I and II. For decades, Missouri was the nation's premier mule producer. (RSMo 10.110)*

### *The Missouri State Bird*

*On March 30, 1927, the native bluebird (*Sialia Sialis*) became the official state bird of Missouri. The bluebird, considered a symbol of happiness, is usually 6½ to 7 inches long. While its upper parts are covered with light blue plumage, its breast is cinnamon red, turning rust colored in the fall. The bluebird is common in Missouri from early spring until late November. (RSMo 10.010)*



# 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, 2007

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.



*Charles S. Cox*

President

*Jeffrey R. Emer*

Executive Director

# Public Pension Coordinating Council Award



Public Pension Coordinating Council  
Public Pension Standards  
2007 Award

Presented to

**Missouri Department of Transportation  
and Highway Patrol Employees'  
Retirement System**

In recognition of meeting professional standards for  
plan design 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



Pam Henry  
Assistant Executive Director

November 10, 2008

To the Board of Trustees and System Members:

We are pleased to present 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, 2008. The struggling global economy had a significant impact on MPERS' investments in fiscal year 2008 (FY08). Despite a decline in the total value of MPERS' investment portfolio, our ability to fund promised retirement benefits remained undiminished.

The financial stability we offer our membership is a hallmark of our System. MPERS' retirees are guaranteed a lifetime monthly benefit through our defined benefit plan, regardless of how the financial markets perform. MPERS' benefit plan was constructed through Missouri statutes and is guaranteed by the Missouri constitution. Both the constitution and case law indicate that MPERS benefits may not be diminished or impaired.

## **Report Contents and Structure**

This CAFR is designed to provide MPERS' stakeholders with a thorough review of the System's operations for the past year. The material presented in this report has been prepared in a manner intended to be useful and informative to the members, the management of the Missouri Department of Transportation (MoDOT), the Missouri State Highway Patrol (Highway Patrol), and the elected officials of the state of Missouri.

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. MPERS' management is responsible for the accuracy and completeness of the information in this report. This report is also designed to comply with the reporting requirements of Sections 104.190, 104.1006 and 105.661 of the Revised Statutes of Missouri (RSMo), as amended.

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*.

## **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 System initially provided retirement and disability benefits and required members to share in the cost of the plan.

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**Website:** [www.mpers.org](http://www.mpers.org) • **E-Mail:** [mpers@modot.mo.gov](mailto:mpers@modot.mo.gov)

# Letter of Transmittal

The plan provisions have changed many times over the years. Today, at no cost to the employees, 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.

An eleven-member Board of Trustees is responsible for the oversight of MPERS. As an instrumentality of the state, MPERS is not subject to the state's legislative appropriations process. The System's administrative spending is governed by a Board-approved "internal" budget. MPERS' financial information is included in the state's CAFR as a component unit.

## **Fiscal Year 2008 Highlights**

In May of 2007, MPERS initiated a multiphase technology project to implement: (1) a new accounting system, (2) an electronic document management (EDM) system, and (3) a new pension administration system (PAS). One of the primary goals of implementing this technology is to ensure that MPERS has the ability to deliver quality service and benefits in the foreseeable future.

The first phase of the project, which involved the installation of a new accounting system, has been finalized and is operational. The EDM system is also operational at this time, with all new documents being imaged as they are received. The conversion included day-forward scanning of incoming member documents as well as outgoing correspondence. Back file conversion was completed for all active, retired, survivor/beneficiary, disability, and terminated vested member files. Converting our member files to images allows for quicker access to records. This will ensure better customer service for our members and provide a means to efficiently backup the data for off-site storage.

The final phase of the project, which is the largest and most complicated phase, involves the replacement of our existing legacy database with a new, state-of-the-art, server-based database management system. The overall project has a scheduled completion date of September 2009.

Although this project has significantly increased the workload on staff, who are managing the extra work of the project in addition to their daily duties, the commitment to ensure a successful implementation is tremendous. MPERS' mission to provide the best customer service possible will be greatly enhanced by this project. We would like to take this opportunity to thank the Board for their support in this endeavor.

MPERS continues to make member education a priority. This fall, our benefit counselors took to the road to offer an educational opportunity targeted at the newer members of our plan. The seminar is called "Benefit Basics". The purpose of this seminar is to increase the awareness and understanding of our defined benefit plan and its value to members. Our goal is to impress on our members the value of the benefit they will receive at retirement. In addition, we utilize this seminar to stress that they must supplement their defined benefit with personal savings, unless they wish to reduce their standard of living at retirement.

The MPERS website has been a useful source of information for our members and prospective members. It has provided members with access to forms and publications and has lowered the printing and postage costs to the System. Utilization of the website has allowed MPERS to put those dollars saved toward expanding communications to members.

## **Financial Information**

This report has been prepared in accordance with generally accepted accounting principles for governmental accounting and reporting. To provide a reasonable assurance that the financial statements are free of any material misstatements, management has established internal controls.

# Letter of Transmittal

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. MD&A complement this letter of transmittal and should be read in conjunction with it.

## **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 85% of funding from the Highway Patrol comes from the State Highway and Transportation Fund. Although Missouri, like most of the country, is facing tough economic times, the employers continue to provide the required contributions to fund the System.

During the year ended June 30, 2008, the funded ratio of MPERS, which covers 17,611 participants, increased from 58.2% to 59.1%. This is the fourth consecutive year that the funded percentage has improved.

The MPERS Board of Trustees has developed a funding policy that is intended to improve the funded status of the System over time. The funding policy stresses the following points:

- The employers (MoDOT & MSHP) are committed to contributing the amount of contributions that the System's actuary annually calculates as the "required contributions".
- The Board has made a commitment to fully fund the plan over the next 27 years.
- Legislative changes implemented in 2007 now prohibit benefit increases until the plan is at least 70% funded.
- MPERS now employs two full-time investment staff to professionally manage a well-diversified portfolio. Three- and five-year investment returns are 9.83% and 11.06% respectively.

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, 2008, our actuary concluded that the System is operating on an actuarially sound basis. Additional information regarding the financial condition of the System can be found in the *Actuarial Section* of this report.

## **Investment Activities**

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

Fiscal year 2008 was a challenging year, given the economic difficulties that started in the housing market and have now spread globally across the financial sector. MPERS' FY08 return of -2.41% (net of fees) ranks in the top 25% of all funds in the public fund peer universe. More importantly, MPERS' three- and five-year returns rank in the top 1% of our peer universe.

# Letter of Transmittal

Since June 30, 2008, the global investment markets have witnessed an unprecedented period of volatility and adverse events. To mention a few, Fannie Mae and Freddie Mac were placed in conservatorship, several large financial institutions (such as Lehman Brothers, AIG, Washington Mutual, and Wachovia) have either gone bankrupt or merged with other entities, and the federal government passed a \$700 billion program to purchase troubled financial assets. As you would expect, investment returns have been impacted by these events. While the total value of the fund has been impacted, institutional investors must remain focused on delivering attractive, long-term investment returns. We are actively reviewing the portfolio and will determine the best course of action to respond to these recent economic events, while keeping this long-term perspective in mind. The *Investment Section* contains additional information regarding our investment performance.

## **Awards and Acknowledgements**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MPERS for its FY07 CAFR. This was the third consecutive year that MPERS has achieved this prestigious award. In order 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 only. We believe that our current CAFR continues to meet the program's requirements, and therefore will be submitting it to GFOA to determine its eligibility for another certificate.

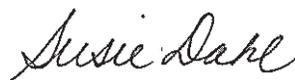
MPERS also received the Public Pension Coordinating Council's Public Pension Standards 2007 Award, in recognition of meeting professional plan design and administration standards. It is the fourth consecutive year in which MPERS applied for and received the council's award. The Public Pension Coordinating Council is a confederation of the National Association of State Retirement Administrators, the National Conference on Public Employee Retirement Systems, and the National Council on Teacher Retirement.

This report, prepared by the MPERS 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.

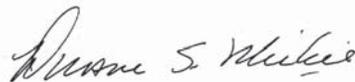
Copies of this report are provided to the Governor, the State Auditor, and the Joint Committee on Public Employee Retirement. It is also distributed to all MoDOT divisions, district offices, Highway Patrol general headquarters, and troop headquarters. These offices form the link between MPERS and its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

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.

Respectfully submitted,



Susie Dahl  
Executive Director



Duane Michie  
Chairman

# Board of Trustees

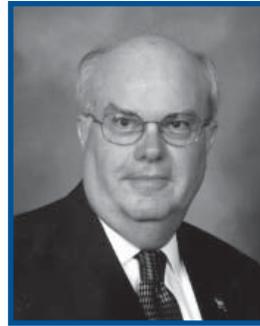
MPERS is governed by a Board of Trustees. As set out in Section 104.160 of the Revised Statutes of Missouri (RSMo), the Board is comprised of eleven members:



**Duane Michie**  
**Board Chairman**  
 Highways & Transportation  
 Commissioner  
*Term Expires 3-1-2009*



**Mike Kehoe**  
**Board Vice-Chairman**  
 Highways & Transportation  
 Commissioner  
*Term Expires 3-1-2011*



**James B. Anderson**  
**Commission Member**  
 Highways & Transportation  
 Commissioner  
*Term Expires 3-1-2009*



**Sue Cox**  
**MoDOT Employees' Representative**  
 Elected by MoDOT Employees  
*Term Expires 7-1-2010*



**Senator John Griesheimer**  
**State Senator**  
 District 26  
 Appointed by  
 President Pro-Tem of the Senate



**Colonel Jim Keathley**  
**Superintendent of the Missouri State Highway Patrol**  
 Ex-Officio Member



**Pete Rahn**  
**Director of the Missouri Department of Transportation**  
 Ex-Officio Member



**Representative Charlie Schlottach**  
**State Representative**  
 District 111  
 Appointed by the Speaker of the House



**Bob Sfredo**  
**MoDOT Retiree Representative**  
 Elected by Retired  
 Members of MPERS  
*Term expires 7-1-2010*



**Roger Stottlemire**  
**MSHP Retiree Representative**  
 Elected by Retired  
 Members of MSHP  
*Term expires 7-1-2010*



**Lieutenant Juan Villanueva**  
**Highway Patrol Employees' Representative**  
 Elected by Patrol Employees  
*Term Expires 7-1-2010*



# Retirement System Staff

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.



**Front Row:** Larry Krummen, Susie Dahl, Norm Robinson, Mariel Hale & Dan Pritchard  
**Back Row:** Lois Wankum, Bev Wilson, Angel Backes, Mary Jordan, Jennifer Johnson,  
Jennifer Even, Julie Berhorst & Leigh Love

# 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 is responsible for reviewing contracts (including investment contracts) for any legal problems, defending and prosecuting lawsuits, giving legal advice to staff on the application of state and federal statutes and cases to the operation of the retirement system and responding to legal inquiries from members and their attorneys.

## **Member Services**

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

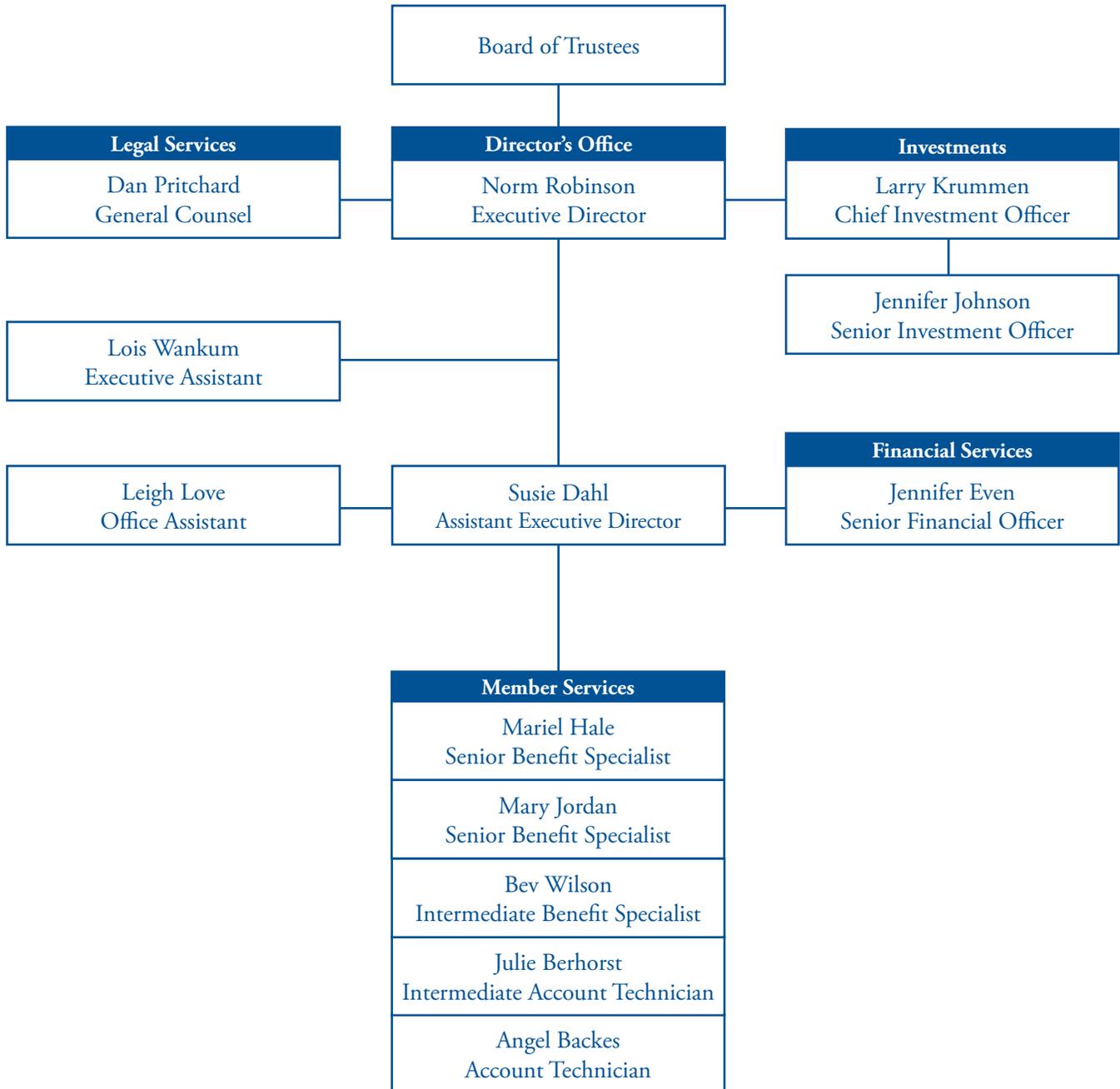
The Benefits Unit is responsible for contact with the membership regarding the benefit programs administered by MPERS, which include retirement and disability. The benefit staff is responsible for preparing and delivering the pre-retirement and benefit basics seminars in addition to assisting with the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

The Payroll Unit is responsible for establishing and maintaining all membership records including:

- (a) maintaining member data on the retirement master,
- (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 thirteen 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

Jim Moody  
Jefferson City, Missouri

## Auditor

Williams-Keepers, LLC  
Jefferson City, Missouri

## Master Trustee/Custodian

The Northern Trust Company  
Chicago, Illinois

## Business Consultant

MAXIMUS  
Waltham, Massachusetts

## Risk Management/Insurance Consultant

Charlesworth Benefits  
Overland Park, Kansas

The Standard Insurance Company  
Portland, Oregon

## Investment Consultant

Summit Strategies Group  
St. Louis, Missouri

## Professional Services (continued)

### Investment Managers

Aberdeen Asset Management.....	Philadelphia, Pennsylvania
ABRY Partners.....	Boston, Massachusetts
Acadian Asset Management .....	Boston, Massachusetts
AEW Partners.....	Boston, Massachusetts
Albourn America .....	San Francisco, California
Algert Coldiron Investments (ACI) .....	San Francisco, California
American Infrastructure MLP.....	Foster City, California
Apollo Real Estate .....	New York, New York
AQR Capital Management.....	Greenwich, Connecticut
Artio.....	New York, New York
Assiduous Strategic Investment (ASI) .....	Charlotte, North Carolina
Audax Group.....	Boston, Massachusetts
AXA Rosenberg.....	Orinda, California
Barclays Global Investors .....	San Francisco, California
Black River .....	Minnetonka, Minnesota
BlackRock, Inc. ....	New York, New York
Bridgewater Associates.....	Westport, Connecticut
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
Grove Street Advisors .....	Wellesley, Massachusetts
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
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 Northern Trust Company .....	Chicago, Illinois
Urdang.....	Plymouth Meeting, Pennsylvania
Vicis Capital.....	New York, New York
Western Asset Management Company .....	Pasadena, California

# Notes



### *The Missouri State Insect*

*On July 3, 1985, the honeybee was designated as Missouri's state insect. The honeybee, (*Apis Mellifera*) yellow or orange and black in color, is a social insect which collects nectar and pollen from flower blossoms in order to produce honey. The honeybee is common to Missouri and is cultivated by beekeepers for honey production. (RSMo 10.070)*

### *The Missouri State Tree Nut*

*The nut produced by the black walnut tree (*Juglans nigra*), known as the eastern black walnut, became the state tree nut on July 9, 1990. The nut has a variety of uses. The meat is used in ice cream, baked goods and candies. The shell provides the soft grit abrasive used in metal cleaning and polishing and oil well drilling. It is also used in paint products and as a filler in dynamite. (RSMo 10.100)*



# Independent Auditors' Report



CERTIFIED PUBLIC ACCOUNTANTS & CONSULTANTS

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

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

[www.williamskeepers.com](http://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, 2008 and 2007, 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 opinion.

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, 2008 and 2007, 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 23 and 24 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. Limited procedures were applied by other auditors to the required supplemental information for the years ended June 30, 2005, 2004, and 2003. 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, for the years ended June 30, 2008, 2007 and 2006. 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 25 through 27 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.

*Williams-Keepers LLC*

November 10, 2008

American Institute of Certified Public Accountants  
Missouri Society of Certified Public Accountants  
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Superior service. Creative solutions. Exceptional clients.

# Management's Discussion and Analysis

The management of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS) provides this discussion and analysis of the System's financial performance for the fiscal year ended June 30, 2008. 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.

## BASIC FINANCIAL STATEMENTS DESCRIPTIONS

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 weakened by \$106 million, reported as the "change in net assets". This is primarily a result of investment losses for the year. Even with this, the funded status of the plan showed an increase of 0.9%. The reason the funded status increased is the 3-year smoothing asset valuation method. The two prior years both had returns well over the actuarial rate of return, which diminished the effect of the current year losses.

The following schedules present summarized comparative data from the financial statements for the fiscal years ended June 30, 2008, 2007, and 2006. After 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, 2008	As of June 30, 2007	As of June 30, 2006	% Change 2008/2007	% Change 2007/2006
Cash and Receivables	\$ 39,325,100	\$ 17,500,118	\$ 18,258,515	124.71%	-4.15%
Investments	1,685,749,748	1,820,830,736	1,595,468,152	-7.42%	14.13%
Invested Securities					
Lending Collateral	61,380,123	150,040,049	118,819,364	-59.09%	26.28%
Capital Assets	1,577,452	627,378	652,810	151.44%	-3.90%
Other Assets	7,889	4,820	1,914	63.67%	151.83%
<b>Total Assets</b>	<b>\$ 1,788,040,312</b>	<b>\$ 1,989,003,101</b>	<b>\$ 1,733,200,755</b>	<b>-10.10%</b>	<b>14.76%</b>
Accounts Payable	7,889,473	13,752,874	16,451,115	-42.63%	-16.40%
OPEB Obligation	94,440	0	0	100.00%	0.00%
Securities Lending Collateral	61,380,123	150,040,049	118,819,364	-59.09%	26.28%
Long-Term Debt	1,226	5,889	10,206	-79.18%	-42.30%
<b>Total Liabilities</b>	<b>\$ 69,365,262</b>	<b>\$ 163,798,812</b>	<b>\$ 135,280,685</b>	<b>-57.65%</b>	<b>21.08%</b>
<b>Total Net Assets</b>	<b>\$1,718,675,050</b>	<b>\$1,825,204,289</b>	<b>\$1,597,920,070</b>	<b>-5.84%</b>	<b>14.22%</b>

The increase in cash and receivables is primarily attributable to larger investment sales receivables as of June 30, 2008. These are normal fluctuations based on investment activity. The decrease from FY06 to FY07 is also primarily due to these fluctuations.

The System's investments represent the main component (94%) 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 decrease in fair value of investments as of June 30, 2008 is due to the generally unfavorable market conditions experienced during FY08. The FY08 investment return was -2.41%. In comparison, the market conditions in FY07 were very favorable, as is shown by the large increase from the fair value amount of June 30, 2006 to that of June 30, 2007. The FY07 investment return was 18.1%. Detailed information regarding MPERS' investment portfolio is included in the *Investment Section* of this report.

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, which is a direct offset to the corresponding asset. The decrease in security lending collateral from FY07 to FY08 is primarily due to a reduction in the lendable securities as MPERS increased its exposure to alternative investments. The exposure to alternative investments was already increasing from FY06 to FY07, but because of the large increase in the fair value of investments, the security lending collateral did have a slight increase.

The increase in capital assets for FY08 can be attributed to the ongoing technology project MPERS has in progress. Costs associated with the project are being capitalized. Two modules have been fully implemented and are now depreciable. The slight decrease in capital assets from FY06 to FY07 is due to very little new equipment being purchased, and the normal growth of accumulated depreciation.

The decrease in accounts payable for all periods presented is primarily attributable to lower investment purchases payables, which are normal fluctuations based on investment activity.

# Management's Discussion and Analysis

The OPEB obligation of \$94,440 at June 30, 2008 represents a liability recorded pursuant to the newly effective GASB Statement No. 45. This liability reflects the System's provision of post employment health care benefits through its participation in the MoDOT and MSHP Medical and Life Insurance Plan.

The System's combined net assets were \$1.719 billion at June 30, 2008, a \$106 million decrease from the \$1.825 billion at June 30, 2007. This is in contrast to the previous year, when net assets increased \$227 million from the June 30, 2006 amount of \$1.598 billion to the June 30, 2007 amount of \$1.825 billion.

## *Summarized Comparative Statements of Changes in Plan Net Assets*

	<u>Year Ended</u> <u>June 30, 2008</u>	<u>Year Ended</u> <u>June 30, 2007</u>	<u>Year Ended</u> <u>June 30, 2006</u>	<u>% Change</u> <u>2008/2007</u>	<u>% Change</u> <u>2007/2006</u>
Contributions	\$ 124,527,678	\$ 121,794,458	\$ 111,542,717	2.24%	9.19%
Net Investment Income/(Loss)	(42,915,886)	283,549,424	212,206,238	-115.14%	33.62%
Other Income	31,546	31,580	41,542	-0.11%	-23.98%
<b>Total Additions</b>	<b>\$ 81,643,338</b>	<b>\$ 405,375,462</b>	<b>\$ 323,790,497</b>	<b>-79.86%</b>	<b>25.20%</b>
Benefits	\$ 185,801,362	\$ 175,970,479	\$ 164,997,406	5.59%	6.65%
Administrative Expenses	2,371,215	2,120,764	1,927,594	11.81%	10.02%
<b>Total Deductions</b>	<b>\$ 188,172,577</b>	<b>\$ 178,091,243</b>	<b>\$ 166,925,000</b>	<b>5.66%</b>	<b>6.69%</b>
Change in Net Assets	\$(106,529,239)	\$ 227,284,219	\$ 156,865,497	-146.87%	44.89%
Net Assets-Beginning	1,825,204,289	1,597,920,070	1,441,054,573	14.22%	10.89%
<b>Net Assets-Ending</b>	<b><u>\$1,718,675,050</u></b>	<b><u>\$1,825,204,289</u></b>	<b><u>\$1,597,920,070</u></b>	<b>-5.84%</b>	<b>14.22%</b>

The main component of the increases in contributions to MPERS is in employer contributions. The total covered payroll amount continues to increase each year, thus increasing the employer contribution amounts for FY08 over the FY07 amounts, even with a lower contribution rate. The increase in employer contributions from FY06 to FY07 was due to both higher covered payroll totals and a higher contribution rate for FY07 from that of FY06.

Net investment income/(loss), a primary component of plan additions, resulted in a loss of \$42.9 million for FY08. This 115% decrease from the FY07 net investment gain of \$283.5 million is in sharp contrast to the 33.62% increase of the FY07 net investment gain over the net investment gain of \$212.2 million in FY06. This loss represents a -2.41% return for the year ended June 30, 2008. Although the return is negative, it does exceed the average public pension plan return of -4.44% for FY08. In comparison, the FY07 investment return was a positive 18.1%. 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 return of 8.25%. Additional information regarding investments can be found in the *Investment Section* of this report.

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.

# Management's Discussion and Analysis

## CURRENTLY KNOWN FACTS AND RECENT EVENTS

Based on the June 30, 2007 actuarial valuation, the Board of Trustees approved a decrease in the required state contribution, effective July 1, 2008. The rate applied to non-uniformed payroll (MoDOT, civilian patrol, and MPERS) will decrease from 31.01% to 30.72%. The rate applied to uniformed patrol payroll will decrease from 42.61% to 40.22%. This decrease is a reflection of the favorable investment returns achieved in FY07, FY06, and FY05.

Based on the June 30, 2008 actuarial valuation, the Board of Trustees approved a change in the required state contribution, effective July 1, 2009. The rate applied to non-uniformed payroll (MoDOT, civilian patrol, and MPERS) will increase from 30.72% to 31.43%. The rate applied to uniformed patrol payroll will decrease from 40.22% to 39.98%.

## 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, 2008 and 2007

	2008	2007
<b>ASSETS:</b>		
Cash	\$ 109,911	\$ 232,164
Receivables		
Contributions	5,013,742	4,951,436
Accrued Interest and Income	4,209,347	4,572,315
Investment Sales	29,847,819	7,011,360
Other	144,281	732,843
Total Receivables	<u>39,215,189</u>	<u>17,267,954</u>
Investments, at Fair Value		
Stocks and Rights/Warrants	\$ 636,972,401	\$ 837,782,481
Government Obligations	26,587,158	17,886,454
Corporate Bonds	25,275,326	18,506,718
Real Estate	181,831,915	232,630,969
Mortgages and Asset-Backed Securities	118,328,739	61,488,806
Absolute Return	317,131,112	369,634,853
Tactical Fixed Income	81,211,799	80,384,553
Short-Term Investments	120,927,501	80,350,769
Venture Capital & Partnerships	177,483,797	122,165,133
Total Investments	<u>1,685,749,748</u>	<u>1,820,830,736</u>
Invested Securities Lending Collateral	\$ 61,380,123	\$ 150,040,049
Prepaid Expenses	7,889	4,820
Capital Assets		
Land	84,000	84,000
Building	581,619	581,619
Furniture, Equipment and Software	1,145,599	133,066
Accumulated Depreciation	(233,766)	(171,307)
Net Capital Assets	<u>1,577,452</u>	<u>627,378</u>
<b>TOTAL ASSETS</b>	<b>\$1,788,040,312</b>	<b>\$1,989,003,101</b>
<b>LIABILITIES:</b>		
Capital Lease	\$ 1,226	\$ 5,889
Accounts Payable	2,288,052	2,767,175
OPEB Obligation	94,440	0
Security Lending Collateral	61,380,123	150,040,049
Investment Purchases	5,601,421	10,985,699
<b>TOTAL LIABILITIES</b>	<b>\$ 69,365,262</b>	<b>\$ 163,798,812</b>
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>	<b><u>\$1,718,675,050</u></b>	<b><u>\$1,825,204,289</u></b>

(A schedule of funding progress is presented on page 23.)

See accompanying Notes to Financial Statements.

# Statements of Changes in Plan Net Assets

For the Years Ended June 30, 2008 and 2007

	<b>2008</b>	<b>2007</b>
<b><u>ADDITIONS:</u></b>		
Contributions-Employer	\$ 123,335,151	\$ 121,264,532
Contributions-Other	<u>1,192,527</u>	<u>529,926</u>
Total Contributions	124,527,678	121,794,458
Investment Income From Investing Activities		
Net Appreciation (Depreciation) in Fair Value of Investments	\$ (39,140,460)	\$ 269,290,866
Interest and Dividends	\$ 23,442,831	\$ 31,302,988
Less: Investment Expenses	<u>(27,631,771)</u>	<u>(17,512,525)</u>
Net Investment Income (Loss)	(43,329,400)	283,081,329
Income From Securities Lending Activities		
Security Lending Gross Income	\$ 3,848,348	\$ 7,136,443
Less: Investment Expenses	<u>(3,434,834)</u>	<u>(6,668,348)</u>
Net Income From Securities Lending	413,514	468,095
Other Income	<u>\$ 31,546</u>	<u>\$31,580</u>
<b>TOTAL ADDITIONS</b>	<b>\$ 81,643,338</b>	<b>\$ 405,375,462</b>
<b><u>DEDUCTIONS:</u></b>		
Monthly Benefits	\$ 185,801,362	\$ 175,970,479
Administrative Expenses	<u>2,371,215</u>	<u>2,120,764</u>
<b>TOTAL DEDUCTIONS</b>	<b>\$ 188,172,577</b>	<b>\$ 178,091,243</b>
NET INCREASE (DECREASE)	\$ (106,529,239)	\$ 227,284,219
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>		
Beginning of Year	<u>1,825,204,289</u>	<u>1,597,920,070</u>
End of Year	<u><b>\$1,718,675,050</b></u>	<u><b>\$1,825,204,289</b></u>

*See accompanying Notes to Financial Statements.*

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

As established under Section 104.020, the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS) is a body corporate and an instrumentality of the State of Missouri. 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. As such, it 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. 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	5 – 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, 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 multiple-employer, public employee retirement system with one plan consisting of two benefit structures known as the Closed Plan and the Year 2000 Plan. 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. This includes other powers as

may be necessary or proper to enable it, its officers, employees, and agents to carry out fully and effectively all the purposes outlined pursuant to these sections. Responsibility for the operation and administration of the System is vested in the Board of Trustees. Detailed information regarding contributions can be found in Note 5.

Generally, all covered employees hired before July 1, 2000 are eligible for membership in the Closed Plan. Likewise, all covered employees hired on or after July 1, 2000 are eligible for membership in the Year 2000 Plan.

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### Membership in the Closed and Year 2000 Plan as of June 30

	FY08		FY08 Total	FY07 Total
	Closed	Year 2000		
Retirees, Beneficiaries, and Disabilities				
Currently Receiving Benefits	5,172	2,173	7,345	7,155
Terminated Employees Entitled to But Not Yet Receiving Benefits	1,583	106	1,689	1,634
Active Employees				
Vested	5,283	1,153	6,436	6,349
Non-Vested	0	2,145	2,145	2,290
<b>Total Membership</b>	<b>12,038</b>	<b>5,577</b>	<b>17,615</b>	<b>17,428</b>

### 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 on or after January 1, 1995.

For members employed prior to August 28, 1997, cost-of-living adjustments (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

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

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

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

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

Members may name a new spouse as beneficiary 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 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 receiving 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 may be available to members upon retirement. This option provides for a monthly benefit to be calculated as if the member elected to retire at a previous date. If the BackDROP is elected, the monthly benefit payable on the actual retirement date is based on the benefit that

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

would have been received by the member had he/she left employment and retired on the BackDROP date. In addition, the member will receive a lump sum payment equal to 90% of the life income annuity amount the member would have received during the BackDROP period. This lump sum amount includes any temporary benefits, COLAs and other benefit increases; also, credit will be received for the unused sick leave balance as of the date of retirement.

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

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

Members may name a new spouse for survivor benefits if:

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

The member has 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 July 1, 2000, are provided a \$5,000 death benefit payable to designated beneficiaries.

### **Contributions**

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

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

### **Schedule of Funded Status and Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-a)/c)
6/30/2008	\$1,783,902,280	\$3,019,633,781	\$1,235,731,501	59.08%	\$375,984,141	328.67%

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.

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

**Additional Information as of the June 30, 2008 Actuarial Valuation Follows:**

Valuation Date	6/30/2008
Actuarial Cost Method	Entry age
Amortization Method	Level percent closed
Remaining Amortization Period	27 years
Asset Valuation Method	3-year smoothed market
Actuarial Assumptions:	
Investment Rate of Return	8.25%
Projected Salary Increases	3.75% to 11.75%
COLAs	2.6% Compound
Price Inflation	3.25%

### 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.

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.

**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.

***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).

***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,

***Interest Rate Risk***

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to interest rates. Interest rate risk is most prevalent within the fixed income allocation, where the Board of Trustees has set a target allocation equal to 32% of System assets. All such items are reported at fair value on the *Statement of Plan Net Assets*.

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### ***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.

### ***Foreign Currency Risk***

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The System is subjected to foreign currency risk through its exposure to fixed income and equity investments that are denominated in a foreign currency. While a certain amount of this exposure is desired for diversification purposes, the System’s investment policy does allow its managers to utilize currency futures for defensive (hedging) purposes if deemed to be in the best interest of the System. The Board of Trustees has set a target allocation to international equities of 22.5%, as reflected in the System’s investment policy.

### ***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, 2008 and 2007, MPERS had carrying amount of deposits of (\$1,775,075) and (\$1,020,908), respectively, and a bank balance of \$191 and \$345, 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 for 2008 and 2007 were \$1,884,986 and \$1,253,071 respectively. As of June 30, 2008 and 2007, no investments were held as repurchase agreements that were uninsured or unregistered, with securities held by the counter party 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.

### ***Note 3 (d) – Investments***

#### ***Summary of Investments by Type at June 30***

	2008		2007	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Government Obligations	\$ 26,538,237	\$ 26,587,158	\$ 18,349,953	\$ 17,886,454
Corporate Bonds	27,272,422	25,275,326	18,910,312	18,506,718
Stock and Rights/Warrants	611,161,204	636,972,401	648,600,826	837,782,481
Real Estate	131,021,239	181,831,915	169,268,797	232,630,969
Mortgages & Asset-Backed Securities	118,242,996	118,328,739	62,168,141	61,488,806
Absolute Return	281,149,107	317,131,112	327,053,400	369,634,853
Tactical Fixed Income	72,039,119	81,211,799	71,403,817	80,384,553
Venture Capital & Partnerships	186,263,816	177,483,797	124,379,405	122,165,133
Short-Term Investments	122,764,003	122,812,487	81,640,943	81,603,840
Securities Lending Collateral	61,380,123	61,380,123	150,040,049	150,040,049
<b>Total Investments</b>	<b>\$1,637,832,266</b>	<b>\$1,749,014,857</b>	<b>\$1,671,815,643</b>	<b>\$1,972,123,856</b>
<b>Reconciliation to Statement of Plan Net Assets:</b>				
Less: Repurchase Agreements		\$ (1,884,986)		\$ (1,253,071)
Less: Securities Lending Collateral		(61,380,123)		(150,040,049)
<b>Investments per Statement of Plan Net Assets</b>		<b>\$1,685,749,748</b>		<b>\$1,820,830,736</b>

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

***Note 3 (e) – Investment Interest Rate Risk***

The following table summarizes the maturities of government obligations, corporate bonds, mortgages and

asset-backed securities, and tactical fixed income on the *Statement of Plan Net Assets*, which are exposed to interest rate risk.

***Summary of Weighted Average Maturities***

Investment Type	Fair Value	Investment Maturities (in years) as of 6/30/08			
		Less than 1	1 - 5	6 - 10	More than 10
Asset-Backed Securities	\$ 1,589,362	\$0	\$ 0	\$ 0	\$ 1,589,362
Commercial Mortgage-Backed Securities	104,059,503	0	0	0	104,059,503
Corporate Bonds	25,275,326	0	6,528,643	5,180,685	13,565,998
Government Agencies	12,852,482	0	57,802	165,230	12,629,450
Government Bonds	10,388,030	0	0	6,992,802	3,395,228
Government Mortgage-Backed Securities	12,679,874	0	0	501,263	12,178,611
Municipal/Provincial Bonds	3,346,646	0	0	1,915,163	1,431,483
Total	\$170,191,223	<b>\$0</b>	<b>\$6,586,445</b>	<b>\$14,755,143</b>	<b>\$148,849,635</b>
Pooled Investments	81,211,799				
<b>Grand Total</b>	<b><u>\$251,403,022</u></b>				

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### ***Note 3 (f) – Investment Credit Ratings***

The following table summarizes the credit rates 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***

<b>Investment Type</b>	<b>Quality Rating</b>	<b>6/30/08 Fair Value</b>	<b>6/30/07 Fair Value</b>
Asset-Backed Securities	AA	\$ 747,805	\$ 0
Asset-Backed Securities	AAA	841,558	4,498,917
Commercial Mortgage-Backed Securities	A-	2,764,235	294,150
Commercial Mortgage-Backed Securities	A	2,213,260	0
Commercial Mortgage-Backed Securities	A+	4,629,826	0
Commercial Mortgage-Backed Securities	AA-	2,209,324	0
Commercial Mortgage-Backed Securities	AA	10,806,896	505,076
Commercial Mortgage-Backed Securities	AA+	6,013,150	0
Commercial Mortgage-Backed Securities	AAA	56,826,193	31,151,675
Commercial Mortgage-Backed Securities	BBB-	132,918	0
Commercial Mortgage-Backed Securities	BBB	2,067,387	0
Commercial Mortgage-Backed Securities	BBB+	169,149	344,838
Commercial Mortgage-Backed Securities	not rated	16,227,165	11,436,369
Corporate Bonds	A	2,517,208	831,361
Corporate Bonds	A-	857,096	1,468,528
Corporate Bonds	A+	2,312,317	992,294
Corporate Bonds	AA-	1,236,844	0
Corporate Bonds	AA	1,595,332	0
Corporate Bonds	AA+	120,673	0
Corporate Bonds	AAA	2,552,958	1,801,377
Corporate Bonds	BB	511,696	0
Corporate Bonds	BB+	616,106	1,567,312
Corporate Bonds	BBB	5,823,341	4,867,033
Corporate Bonds	BBB-	2,574,304	2,073,911
Corporate Bonds	BBB+	3,519,045	2,145,074
Corporate Bonds	Treasury	0	435,760
Corporate Bonds	not rated	1,038,405	2,324,069
Government Agencies	Agency	9,254,700	196,339
Government Agencies	A+	223,032	0
Government Agencies	AAA	3,374,750	0
Government Bonds	AAA	4,185,676	12,933,775
Government Bonds	Treasury	6,202,354	0
Government Mortgage-Backed Securities	Agency	12,679,874	13,257,781
Government Mortgage-Backed Securities	not rated	0	0
Municipal/Provincial Bonds	AA	2,883,423	0
Municipal/Provincial Bonds	AAA	463,223	4,756,339
Pooled Investments	not rated	81,211,799	80,384,553
<b>Total</b>		<b>\$251,403,022</b>	<b>\$178,266,531</b>

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### 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	6/30/08 Total	6/30/07 Total
Australian Dollar	\$ 3,033	\$ 1,184,617	\$ 0	\$ 0	\$ 1,187,650	\$ 10,856,797
British Pound Sterling	25,751	3,939,452	0	0	3,965,203	49,298,110
Canadian Dollar	18,233	1,762,357	0	0	1,780,590	12,441,813
Czech Koruna	0	0	0	0	0	1,710,812
Danish Krone	1,681	120,292	0	0	121,973	2,157,792
Euro	220,824	7,307,031	574	155,127	7,683,556	166,992,878
Hong Kong Dollar	3,953	430,165	0	0	434,118	4,667,375
Hungarian Forint	0	0	0	0	0	4,670,405
Indonesian Rupiah	0	0	0	0	0	96,666
Japanese Yen	19,165	4,092,492	0	0	4,111,657	59,300,827
Mexican Peso	0	0	0	0	0	1,430,244
New Zealand Dollar	1,172	29,819	0	0	30,991	342,515
Norwegian Krone	121	320,492	0	0	320,613	2,721,022
Philippine Peso	0	0	0	0	0	83,809
Polish Zloty	0	0	0	0	0	(777,068)
Singapore Dollar	7,783	263,052	0	0	270,835	714,691
South African Rand	0	0	0	0	0	3,716
South Korean Won	0	0	0	0	0	2,233,993
Swedish Krona	40,846	355,886	0	0	396,732	14,891,266
Swiss Franc	48	1,290,617	0	0	1,290,665	18,669,098
Thai Baht	0	0	0	0	0	307,892
Turkish Lira	810	0	0	0	810	3,752,435
<b>Total Exposure Risk</b>	<b>\$343,420</b>	<b>\$21,096,272</b>	<b>\$574</b>	<b>\$155,127</b>	<b>\$21,595,393</b>	<b>\$356,567,088</b>

### Note 3 (b) – 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, 2008 and 2007 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 62 days and 79 days, as of June 30, 2008 and June 30, 2007, respectively. Cash open collateral is invested in a short-term investment pool, which had an interest sensitivity of 36 days and 39 days, as of June 30, 2008 and June 30, 2007, 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

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

by either lender or borrower. There were no known violations of legal or contractual provisions, or borrower or lending agent default losses. There are 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:

### *Collateral Held*

Investment Type	2008	2007
Equities	\$50,628,009	\$139,444,727
Government & Government Sponsored Securities	10,262,450	12,135,999
Corporate Bonds	1,846,513	2,658,480
	<b><u>\$62,736,972</u></b>	<b><u>\$154,239,206</u></b>

### NOTE 4 – RECEIVABLES

Receivables consist primarily of pending investment trades, interest and dividends, and employer contributions.

### *Receivables*

Type	2008	2007
Contributions-MoDOT	\$ 3,349,952	\$ 3,300,519
Contributions-MSHP Non-Uniformed	528,756	507,683
Contributions-MSHP Uniformed	1,102,900	1,123,593
Contributions-Retirement System	32,134	19,641
Commission Recapture	600	1,148
Securities Lending	141,401	729,115
Amounts Due From Members	2,280	2,580
Investment Interest & Income	4,209,347	4,572,315
Investment Sales	29,847,819	7,011,360
	<b><u>\$39,215,189</u></b>	<b><u>\$17,267,954</u></b>

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### NOTE 5 – CONTRIBUTIONS

MoDOT, the Highway Patrol, and MPERS make contributions to the System. As a non-contributory defined benefit plan, employees do not contribute to the System. MPERS 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.) 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.

Required employer contributions totaling \$123,335,151 and \$121,264,532 for fiscal years 2008 and 2007, respectively, represent funding of normal costs and amortization of the unfunded accrued liability. Actual contributions made were 100% of required contributions. Contribution rates determined by the System's actuary for the years ended June 30, 2008 and 2007 are shown below. The Board established actual rates to be the same as the actuarially determined rates.

#### Contribution Rates

2008		2007	
MoDOT, MPERS and Civilian Patrol	Uniformed Patrol	MoDOT, MPERS and Civilian Patrol	Uniformed Patrol
31.01%	42.61%	31.10%	44.28%

### NOTE 6 – RELATED PARTY TRANSACTIONS

MoDOT rents office space from MPERS. This contract is effective from June 2008 through May 2011. This

amounted to other income of \$31,424 and \$31,104 during FY08 and FY07, respectively.

### NOTE 7 – PERSONAL SERVICES AND RETIREMENT PLAN

MPERS employed 13 full-time employees on June 30, 2008 and 12 full-time employees on June 30, 2007. Four former MPERS employees have retired. Full-time employees are also members of the System. For these employees, MPERS accrued 31.01% of payroll during FY08, amounting to \$282,498,

which was equal to the required contribution. The net obligations for FY08 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 (ARC) <sup>(1)</sup>		Percent Contributed	Net Obligation
	Percent	Dollars		
2006	30.49%	209,301	100%	\$0
2007 <sup>(2)</sup>	31.10%	246,318	100%	\$0
2008	31.01%	282,498	100%	\$0

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

(2) New assumptions adopted.

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### NOTE 8 – OTHER POST-EMPLOYMENT BENEFITS (OPEB)

In addition to the retirement benefits described previously, MPERS provides a portion of health care insurance through the MoDOT and MSHP Medical and Life Insurance Plan (Insurance Plan) in accordance with Missouri State statutes. For the purpose of reporting OPEB costs and obligations in accordance with newly effective 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, (1) general inpatient and outpatient medical services, (2) mental, nervous and substance abuse care, and (3) prescriptions. Eligible members are employees who retired from the System with a minimum of 5 years of state 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, PO 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. As of June 30, 2008, MPERS has three eligible participating retirees, and recognized costs of \$8,713, \$6,786 and \$4,055 for FY08, FY07 and FY06 respectively.

MoDOT had its first actuarial valuation performed for the Insurance Plan as of June 30, 2008. For FY08, the annual required contribution (ARC) is equal to the annual OPEB cost. MPERS' OPEB cost, percentage of annual OPEB cost contributed to the Insurance Plan and the net OPEB obligation are shown below.

#### OPEB Cost and Obligation

Year Ended June 30	Annual OPEB Cost	Estimated MPERS Contributions <sup>(1)</sup>	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
2008	\$114,370	\$19,930	17%	\$94,440

<sup>(1)</sup> Includes implicit rate subsidies.

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. MPERS' portion of the AAL as of June 30, 2008 is \$1,178,303, which is equal to MPERS' portion of the unfunded actuarial accrued liability (UAAL).

Actuarial valuations of an ongoing plan reflect long-term perspective and involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future

employment, mortality, and the healthcare cost trend. These calculations are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. A schedule of funding progress is presented as required supplementary information following the notes to the financial statements. As allowed by the GASB, this reporting requirement is being implemented prospectively. Data is not available for prior years. Over time, the schedule of funding progress will present trend information about whether the actuarial value of plan assets is increasing or decreasing relative to the AAL for benefits.

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

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	5.0%
Healthcare Cost Trend Rate	10%, decreasing to 5% in 2012

### NOTE 9 – CAPITAL ASSETS

#### *Summary of Changes in Capital Assets*

	<b>6/30/2007</b>		<b>Deletions/ Retirements</b>	<b>6/30/2008</b>
	<b>Balance</b>	<b>Additions</b>		<b>Balance</b>
Land	\$ 84,000	\$ 0	\$0	\$ 84,000
Buildings	581,619	0	0	581,619
Furniture, Equipment and Software	133,066	1,012,533	0	1,145,599
Less: Accumulated Depreciation	(171,307)	(62,459)	0	(233,766)
<b>Total</b>	<b>\$627,378</b>	<b>\$ 950,074</b>	<b>\$0</b>	<b>\$1,577,452</b>

	<b>6/30/2006</b>		<b>Deletions/ Retirements</b>	<b>6/30/2007</b>
	<b>Balance</b>	<b>Additions</b>		<b>Balance</b>
Land	\$ 84,000	\$ 0	\$0	\$ 84,000
Buildings	581,619	0	0	581,619
Furniture, Equipment and Software	122,751	10,315	0	133,066
Less: Accumulated Depreciation	(135,560)	(35,747)	0	(171,307)
<b>Total</b>	<b>\$652,810</b>	<b>\$(25,432)</b>	<b>\$0</b>	<b>\$ 627,378</b>

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### NOTE 10 – LONG-TERM OBLIGATIONS - CAPITAL LEASES

MPERS entered into a capital lease-purchase agreement in 2004 for a Xerox Workcentre Pro requiring monthly installments of \$413 through September 30, 2008,

interest at 7.774%. The cost of the copier/printer is \$22,490 and is included in capital assets.

#### ***Changes in Long-term Obligations***

Type	6/30/2007 Balance	Additions	Reductions	6/30/2008 Balance
Capital Lease	\$5,889	\$0	\$(4,663)	\$1,226

Type	6/30/2006 Balance	Additions	Reductions	6/30/2007 Balance
Capital Lease	\$10,206	\$0	\$(4,317)	\$5,889

Future principal and interest requirements for the lease-purchase are as follows:

#### ***Future Principal and Interest Requirements***

Year Ending June 30	Amount
2009	\$1,240
Total Minimum Lease Payments	\$1,240
Less: Interest Amount	(14)
Present Value of Minimum Lease Payments	\$1,226

### NOTE 11 – OPERATING LEASES

As of June 30, 2008, MPERS is committed to one lease for a postage machine, through September 2011. Two leases expired during FY08. Expenditures for the years

ended June 30, 2008 and 2007 amounted to \$2,915 and \$30,267, respectively.

#### ***Future Minimum Lease Payments***

Year Ending June 30	Amount
2009	\$ 719
2010	719
2011	180
Total Minimum Lease Payments	\$1,618

# Notes to the Financial Statements

## For the Years Ended June 30, 2008 and 2007

### NOTE 12 – 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. 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 13 – COMMITMENTS

During fiscal year 2007, the System purchased a new pension administration software system. Total software and related consulting services are estimated to be

approximately \$3,000,000, of which \$1,010,241 has been capitalized and \$160,371 has been expensed as of June 30, 2008.

### NOTE 14 – SUBSEQUENT EVENTS

Since June 30, 2008, the global investment markets have witnessed an unprecedented period of volatility and adverse events. To name a few, the Federal National Mortgage Association and the Federal Home Loan Mortgage Corp were placed in conservatorship. Several large financial institutions (such as Lehman Brothers, AIG, Washington Mutual, Wachovia) have either gone bankrupt or merged with other entities, and the federal government passed a \$700 billion program to

purchase troubled financial assets. In management's opinion, while such events have impacted the total value of the portfolio, institutional investors must remain focused on delivering attractive, long-term investment returns. We are actively reviewing the portfolio and will determine the best course of action to respond to these recent economic events, while keeping this long-term perspective in mind.

# Required Supplementary Information

## Schedule of Funding Progress

Year Ended June 30	Actuarial Asset Value	Actuarial Accrued Liability (AAL) Entry Age	Unfunded AAL (UAAL)	Funded Ratio	Actuarial Covered Payroll <sup>(1)</sup>	UAAL as a Percentage of Covered Payroll
2003	\$1,363,952,522	\$2,418,145,741	\$1,054,193,219	56.20%	\$319,345,949	330.11%
2004	1,331,588,207	2,492,918,976	1,161,330,769	53.41	316,224,468	367.25
2005 <sup>(2)</sup>	1,417,348,982	2,627,409,025	1,210,060,043	53.94	334,030,151	362.26
2006	1,521,142,953	2,740,437,837	1,219,294,884	55.51	341,227,890	357.33
2007 <sup>(2)</sup>	1,685,807,004	2,897,267,409	1,211,460,405	58.19	370,598,675	326.89
2008	1,783,902,280	3,019,633,781	1,235,731,501	59.08	375,984,141	328.67

<sup>(1)</sup> Values are estimated from contribution rate and amount.

<sup>(2)</sup> New assumptions adopted.

## Schedule of Employer Contributions

Year Ended June 30	Uniformed Patrol			MoDOT, Civilian Patrol and MPERS		
	Annual Required Contribution		Percent Contributed	Annual Required Contribution		Percent Contributed
	Percent	Dollars		Percent	Dollars	
2003	34.94% <sup>(1)</sup>	\$16,831,478	100%	23.29% <sup>(1)</sup>	\$63,156,292	100%
2004	38.40%	17,792,058	100%	25.54%	68,932,856	100%
2005 <sup>(2)</sup>	43.54%	22,187,762	100%	28.28%	80,052,383	100%
2006	44.27%	24,102,199	100%	30.49%	87,440,518	100%
2007 <sup>(2)</sup>	44.28% <sup>(1)</sup>	27,802,932	100%	31.10% <sup>(1)</sup>	93,991,526	100%
2008	42.61%	29,147,429	100%	31.01%	95,380,249	100%

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

<sup>(2)</sup> 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, 2008
Actuarial Cost Method .....	Entry Age Normal
Amortized Method .....	Level Percent of Payroll
Remaining Amortization Period .....	27 years from July 1, 2009
Amortization Approach .....	Closed
Asset Valuation Method.....	3-year smoothing
Actuarial Assumptions:	
Investment Rate of Return .....	8.25%
Projected Salary Increase .....	3.75% to 11.75%
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%

Because this plan is an internal service fund of MoDOT, assets have not been set aside so there is no actuarial value of assets. As allowed by the GASB, this reporting requirement is being implemented prospectively, as prior years' data is not available.

#### Notes to the Schedule of Trend Information - OPEB

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, 2007
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.....	5.0%
Healthcare Cost Trend Rate.....	10% decreasing to 5% in 2012

# Supplementary Information

## MoDOT and Patrol Employees' Retirement System

### Schedules of Administrative Expenses For the Years Ended June 30, 2008 and 2007

	2008	2007
<b><u>PERSONAL SERVICES:</u></b>		
Salary Expense	\$ 949,751	\$ 701,464
Employee Benefit Expense	615,533	522,134
<b>Total Personal Services</b>	<b>\$ 1,565,284</b>	<b>\$ 1,223,598</b>
<b><u>PROFESSIONAL SERVICES:</u></b>		
Actuarial Services	\$ 57,240	\$ 84,613
Computer Services	255,133	217,260
Audit Expense	21,200	20,500
Disability Program	29,344	27,360
Consultant Fees	62,935	68,128
Pension Administration System	225	147,700
Other	12,695	4,697
<b>Total Professional Services</b>	<b>\$ 438,772</b>	<b>\$ 570,258</b>
<b><u>MISCELLANEOUS:</u></b>		
Depreciation	\$ 62,756	\$ 35,746
Meetings/Travel/Education	89,701	83,435
Equipment/Supplies	52,543	41,434
Printing/Postage	69,481	66,258
Bank Service Charge	4,927	6,030
Building Expenses	36,773	36,743
Other	50,978	57,262
<b>Total Miscellaneous</b>	<b>\$ 367,159</b>	<b>\$ 326,908</b>
<b>TOTAL ADMINISTRATIVE EXPENSES</b>	<b><u>\$2,371,215</u></b>	<b><u>\$2,120,764</u></b>

# Supplementary Information

## MoDOT and Patrol Employees' Retirement System Schedules of Investment Expenses For the Years Ended June 30, 2008 and 2007

	2008	2007
<b><u>INVESTMENT INCOME EXPENSES:</u></b>		
Management and Performance Fees		
Aberdeen Asset Management	\$ 168,552	\$ 292,799
ABRY Partners	80,477	0
Acadian Asset Management	1,299,714	1,069,046
AEW	187,500	187,500
Albourne	240,000	240,000
Algert Coldiron Investments (ACI)	570,137	878,439
American Infrastructure MLP	135,059	0
Apollo Real Estate	210,447	224,999
AQR Capital Management	394,660	466,298
Artio (formerly Julius Baer)	835,272	771,312
Assiduous Strategic Investment (ASI)	147,168	49,136
Audax Group	125,391	135,969
AXA Rosenberg	213,055	284,810
Barclays Global Investors	1,436,442	1,041,963
Black River	669,910	0
Blackrock, Inc.	489,829	107,807
Bridgewater Associates	4,026,537	1,100,655
Colony Capital	235,970	0
Concordia	382,673	0
CQS Management	407,078	147,143
CarVal Investors (CVI)	273,662	262,774
Deephaven Capital Management	126,897	0
EIF Management	57,581	0
Enhanced Investment Technologies (INTECH)	400,197	456,236
GMO	1,562,846	727,215
Grove Street Advisors	2,000,000	2,000,000
ING Clarion	827,160	705,746
Natural Gas Partners	377,758	0
Och-Ziff Real Estate	0	225,000
Paulson and Co.	4,030,311	850,099
Pinnacle Associates	476,481	286,441
Principal Global Investors	1,237,611	1,201,713
RMK Timberland	205,989	205,989
Rothschild Asset Management	296,315	870,951
Silchester International Investors	680,958	704,780
Stark Investments (Shepard)	425,112	656,989
Structured Portfolio Management (SPM)	167,824	0
Urdang	293,698	187,286
Vicis Capital	985,107	321,600
Western Asset Management Company	175,241	172,470
<b>Total Management and Performance Fees</b>	<b>\$26,856,619</b>	<b>\$16,833,165</b>
Investment Custodial Fee	\$232,728	\$ 298,277
Performance Management	67,950	40,646
General Consultant (Monitoring) Fee	225,000	168,750
Other Investment Expenses	249,474	171,687
<b>TOTAL INVESTMENT INCOME EXPENSES</b>	<b><u>\$27,631,771</u></b>	<b><u>\$17,512,525</u></b>
<b><u>SECURITIES LENDING EXPENSES:</u></b>		
Borrower Rebates	\$ 3,257,768	\$ 6,467,899
Bank Fees	177,066	200,449
<b>TOTAL SECURITIES LENDING EXPENSES</b>	<b><u>\$ 3,434,834</u></b>	<b><u>\$ 6,668,348</u></b>

# Supplementary Information

## MoDOT and Patrol Employees' Retirement System Schedules of Professional and Consultant Expenses *For the Years Ended June 30, 2008 and 2007*

	<b>2008</b>	<b>2007</b>
Actuarial Services	\$ 57,240	\$ 84,613
Computer Services	255,133	217,260
Audit Services	21,200	20,500
Disability Administrative Services	29,344	27,360
Legislative Consultant	30,000	25,000
Customer Service and Benefit Delivery	17,508	27,128
Pension Administration System	225	147,700
Insurance Consultant	6,000	6,000
Salary and Benefits Study, Employment Agreement	9,427	10,000
Other	<u>12,695</u>	<u>4,697</u>
<b>TOTAL CONSULTANT AND PROFESSIONAL EXPENSES</b>	<b><u>\$438,772</u></b>	<b><u>\$570,258</u></b>



### *The Missouri State Musical Instrument*

*The fiddle became the state's official musical instrument on July 17, 1987. Brought to Missouri in the late 1700s by fur traders and settlers, the fiddle quickly became popular. The instrument was adaptable to many forms of music, could be played without extensive formal training and was light and easy to carry. For generations, the local fiddle player was the sole source of entertainment in many communities and held a position of great respect in the region. (RSMo 10.080)*

### *The Missouri State Tree*

*On June 20, 1955, the flowering dogwood (Cornus Florida L.) became Missouri's official tree. The tree is small in size, rarely growing over 40 feet in height or 18 inches in diameter. The dogwood sprouts tiny greenish-yellow flowers in clusters, with each flower surrounded by four white petals. The paired, oval leaves are olive green above and covered with silvery hairs underneath. In the fall, the upper part of the leaves turn scarlet or orange and bright red fruits grow on the tree. (RSMo 10.040)*



# Chief Investment Officer Report

Susie Dahl  
Executive Director



**MoDOT & Patrol  
Employees' Retirement System**

Pam Henry  
Assistant Executive Director

November 10, 2008

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.

In 2004, we began a major restructuring of MPERS' investment portfolio, and I'm pleased to report the changes implemented have performed better than expected. Over the past one, three, and five years, MPERS' investment return consistently ranks in the top 25% of the public pension plans in our peer universe. The recent success is a clear sign the investment portfolio is better off as a result of our efforts, and we continue to take advantage of current opportunities that should keep us among the top performing plans in the future. Nevertheless, the investment environment was difficult in fiscal year 2008, as the average public pension plan returned -4.44% for the year. While MPERS return of -2.41% was considerably better than this average, it falls well below our actuarial return hurdle of 8.25%. Fortunately, our three and five-year returns remain well above the 8.25% hurdle at 9.83% and 11.06%, respectively.

As institutional investors, we look for assets considered "cheap" in the market – those expected to produce larger returns relative to other assets. We take calculated risks and then hope the assets and the overall market behave in a manner in which our models and expectations prove correct. This past year was not one of those times. A global housing crisis led to a lack of available credit and a massive de-leveraging (selling of assets) that drove most asset classes into negative territory for the first time since 2002. Investors in turn fled the credit-sensitive markets in exchange for the relatively "safe" Treasury market, driving the price of Treasuries higher and generating returns on Treasuries that exceeded our expectations. MPERS' reliance on alternative investment strategies, which worked very well in years past, did not match the return from the traditional fixed income markets (especially the Treasury markets) and was the primary cause of our underperformance relative to policy benchmarks for the year.

The irony with being a long-term investor is that times like today are actually healthy if you can look beyond the short-term performance and find the long-term opportunities being created. While it is easy to be discouraged by the negative numbers for FY08, the credit issues will eventually resolve and the economy will once again find its footing. When it does, we are positioned exceptionally well to take advantage of it. I take comfort in knowing the changes implemented in recent years have drastically improved MPERS' performance relative to our peers, and I'm confident the best is yet to come.

Sincerely,

A handwritten signature in black ink, appearing to read 'Larry Krumpfen', written over a white background.

Larry Krumpfen, 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](http://www.mpers.org) • **E-Mail:** [mpers@modot.mo.gov](mailto:mpers@modot.mo.gov)

# Investment Consultant Report



*Summit Strategies Group*

October 21, 2008

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

Dear Ms. Dahl:

The markets offered challenges to all investors throughout the fiscal year ending June 30, 2008. What began with a crisis in the subprime mortgage market soon spread to other markets and asset classes around the world. During the 12-month period, U.S. stocks were down 13.1% and Non-U.S. stocks were down 10.2%, to offer some perspective. Since the end of the fiscal period, the markets continue to struggle.

With total assets of \$1,713,975,398 on June 30, 2008 the return was -2.4% for the year, slightly behind the policy benchmark but better than 82% of the public funds in the ICC Universe for the 12-month period! For the 3- and 5-year periods, the fund earned 9.8% and 11.1%, both ahead of the policy benchmark. Compared to your peers, the System outperformed 99% of the funds in the sample for the three-year period (in other words, you were in the top 1% of all public funds for that time period.) Over the five-year period the MPERS return ranked in the top 3% of the public fund universe. These returns were calculated using a time-weighted rate of return and are based on June 30, 2008 market values.

Most of this strong performance can be attributed to the System's well-diversified asset allocation strategies. The U.S. and Non-U.S. stock portfolios turned in negative performance, collectively in line with their markets. The bond portfolio and the real estate portfolio each contributed positively to the System's overall return. The private equity portfolio is just starting to come on line, and we are excited about the return potential offered by this investment strategy in the coming years.

Your portfolio is well-diversified, and we believe this will help you immensely as we navigate the uncertain waters of fiscal 2008-09. Thus far many investment strategies have faced material headwinds as the credit crunch works its way through the global markets. We think your assets are well-positioned, and that will be the key to future success. This is not, however, a "set and forget" exercise, and we will continue to work with you, your staff and the Board of Trustees to refine our strategies and attempt to capture opportunities as they present themselves.

On behalf of all of us at Summit Strategies Group, we appreciate your continued support and trust. It is truly a pleasure to be working with you in your efforts to provide for the retirement security of your membership, and we look forward to many years of continued success with the MoDOT & Patrol Employees' Retirement System.

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 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 will 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, 2008, MPERS' investment portfolio had a total market value of \$1.71 billion, representing a decrease of \$107.2 million from fiscal year-end 2007. Over the course of the year, \$64.5 million was transferred out of the fund to meet benefit payments and other obligations. When viewed together, the net decrease from investment activity equated to \$42.8 million.

## Investment Performance

The MPERS' investment portfolio returned -2.41% in fiscal year 2008, based on time-weighted rates of return and market valuations. Performance for the various sub-asset classes and their respective benchmark indices is listed below.

<b>Investment Performance (Including Benchmarks)</b>	<b>1-Year</b>	<b>3-Year</b>	<b>5-Year</b>
<b>Total Fund</b>	<b>-2.41%</b>	<b>9.83%</b>	<b>11.06%</b>
Policy Benchmark	-1.45	9.09	10.21
<b>Domestic Equity</b>	<b>-11.89</b>	<b>5.47</b>	<b>9.42</b>
Russell 3000	-12.69	4.73	8.37
<b>International Equity</b>	<b>-8.50</b>	<b>17.35</b>	<b>19.88</b>
MSCI ACWI ex-US	-6.20	16.16	19.42
<b>Fixed Income Composite</b>	<b>4.27</b>	<b>4.94</b>	<b>4.37</b>
Lehman Universal Index	6.22	4.14	4.15
<b>Real Estate</b>	<b>7.09</b>	<b>13.20</b>	-
NCREIF Property Index	9.20	14.96	-

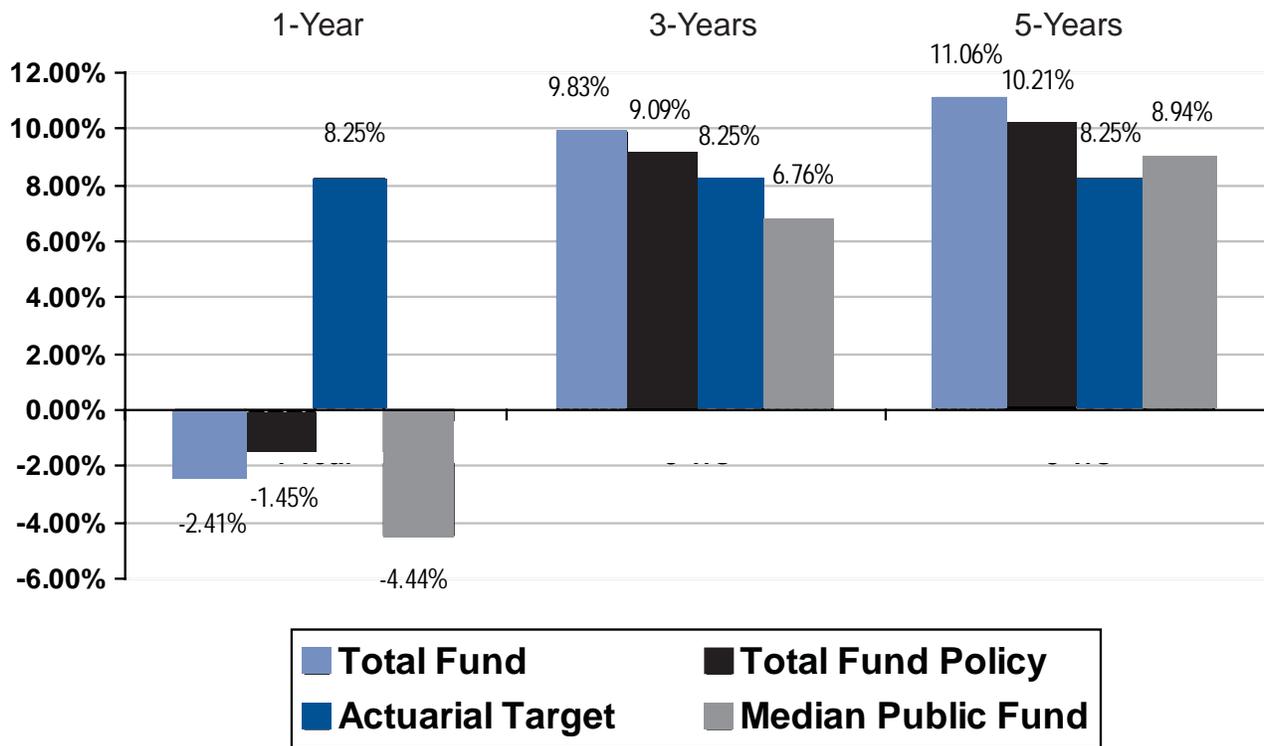
# Investment Activity Overview

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.

Throughout FY08, a global housing crisis led to a lack of available credit and a massive de-leveraging (selling of assets) that drove most asset classes into negative territory for the first time since 2002. Investors in turn fled the credit-sensitive markets in exchange for the relatively "safe" Treasury market, driving the price of

Treasuries higher and generating returns on Treasuries that exceeded our expectations. Given MPERS' reliance on alternative investment strategies, we have less exposure to Treasuries compared to our policy benchmark. This lack of Treasury exposure was the primary cause of MPERS' underperformance relative to our policy benchmark. External manager performance was also weak (relative to their respective benchmarks) across most asset classes for the year, further contributing to the shortfall versus policy benchmarks.

Fortunately, despite the difficulties in FY08, MPERS' three and five-year return compares favorably to all three broad performance goals. Historical returns versus the various performance goals are listed below:



## Asset Allocation Overview

Fiscal year 2008 was relatively quiet in terms of asset allocation changes. We began the year considerably underweight to domestic equity, offset by an overweight position to international equities. Throughout the year, we brought this relationship closer to an even 50/50 split, based on the improving outlook for the U.S. dollar. The fund remains underweight to traditional fixed income assets, focusing instead on absolute return strategies that we believe will generate higher risk-adjusted returns in the coming years.

On September 28, 2007, the Board authorized the CIO to invest a portion of plan assets in an internally managed fixed-income portfolio, not to exceed 5% of the System's assets without prior approval from the Board. The new allocation will represent a component of the traditional fixed-income allocation, and performance will be measured against the Lehman U.S. Aggregate Index. As of June 30, the fund had less than 1% of assets invested in the new internally managed account.

## Investment Activity Overview

While the System's real estate allocation was relatively stable throughout the year, a number of changes were made to better position the portfolio against a decline of commercial real estate prices. Throughout the year, MPERS liquidated \$92.5 million from the lineup of core real estate managers, allocating these funds across a number of value-added and opportunistic strategies better positioned to benefit from distressed sellers of real estate. We also invested \$50 million in a dedicated real estate debt strategy offering attractive yields and better protection should real estate prices decline from current levels.

The relationship with Grove Street Advisors remained active throughout the year, as they called a total of \$31.9 million in capital to fund new private equity investments. Grove Street was hired in July of 2005 to invest a total of \$200 million in private equity commitments across a broad range of strategies and geographic regions. Grove Street completed this first program (called MP Ventures) in April of 2008, allocating funds across 25 managers with commitments ranging from \$5 to \$12 million per relationship. We are now working on a second \$200 million program (MP Ventures II), which officially launched on April 22, 2008. Together with direct investments made outside the Grove Street umbrella, MPERS invested a total of \$50.5 million throughout the year in new private equity ventures, ending the year with a 5.0% allocation to private equity. We continue to utilize a global enhanced equity product and two absolute return strategies as private equity surrogates until the asset class reaches the target allocation of 10%.

The evolution and restructuring of the absolute return/hedge fund portfolio continued throughout the year, and seems to be a never-ending process. The ultimate goal is to transition the portfolio to a well-diversified alpha pool that can be used to enhance returns across a number of investment mandates. Given the increased complexity of this program, MPERS continues to utilize the services of Albourne America, LLC, a dedicated hedge fund consultant, to assist with the construction and oversight of this portfolio. A number of new hires and terminations were made during the year as we continue to position the portfolio to meet our long-term objectives.

Looking forward (from an asset allocation viewpoint), for the first time in several years we are targeting a neutral 50/50 split between international equities and domestic equities, mainly due to the improving prospects of the U.S. dollar. We remain underweight to traditional fixed income securities, as alternative investments continue to offer potential for higher relative returns. While this detracted from performance in FY08, we remain convinced this trade will benefit the fund over the next 3-5 years. The real estate portfolio is also a focal point, as we further diversify the portfolio to include a higher mix of international holdings, along with additional value-added and opportunistic strategies.

The chart below lists the target and actual allocations to the various sub-asset classes within the overall portfolio.

<b>Asset Class</b>	<b>Ending FY07 Allocation</b>	<b>FY08 Target Allocation</b>	<b>Ending FY08 Allocation</b>
<b>Public Equity</b>	<b>46.2%</b>	<b>45.0%</b>	<b>44.7%</b>
Domestic equity	20.8%	22.5%	21.4%
International equity	25.4%	22.5%	23.3%
<b>Private Equity</b>	<b>9.8%</b>	<b>10.0%</b>	<b>9.5%</b>
<b>Fixed Income</b>	<b>27.5%</b>	<b>32.0%</b>	<b>27.8%</b>
<b>Real Estate*</b>	<b>13.6%</b>	<b>10.0%</b>	<b>13.4%</b>
<b>Cash</b>	<b>3.0%</b>	<b>0.0%</b>	<b>4.6%</b>

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

# Investment Summary

## Amounts Reported By Management-Type Allocation

	06/30/07		Acquisitions	Dispositions	06/30/08		% of Market
	Book Value	Market Value			Book Value	Market Value	
Domestic Equity	\$ 319,818,110	\$ 381,155,139	\$ 253,564,796	\$ (256,777,004)	\$ 316,605,902	\$ 366,423,442	21.4%
International Equity	339,624,786	461,970,514	532,617,735	(490,061,570)	382,180,951	399,152,873	23.3%
Private Equity	164,380,301	178,086,757	126,635,257	(121,375,879)	169,639,679	162,683,281	9.5%
Real Estate**	184,351,931	247,045,491	49,049,167	(52,584,828)	180,816,270	230,641,364	13.4%
Fixed Income	458,389,876	498,209,655	602,394,988	(586,314,385)	474,470,479	475,912,355	27.8%
Short Term	54,695,734	54,745,992	24,084,128	336,700	79,116,562	79,162,082	4.6%
<b>Total Investments</b>	<b>\$1,521,260,738</b>	<b>\$1,821,213,548</b>	<b>\$1,588,346,071</b>	<b>\$(1,506,776,966)</b>	<b>\$1,602,829,843</b>	<b>\$1,713,975,397</b>	<b>100.0%</b>

### Reconciliation to Statement of Plan Net Assets:

Less Accrued Investment Interest and Income	(4,209,347)
Less Investment Sales Receivable	(29,847,819)
Plus Investment Purchases Payable	5,601,421
Currency Adjustment	230,096
	<u>\$1,685,749,748</u>

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

# Largest Investment Holdings

## Largest Equity Securities (Non-Commingled Funds)

Shares	Security	Market Value
66,600	EXXON MOBIL CORP COM	\$5,869,458
140,700	GENERAL ELECTRIC CO	3,755,283
80,812	AT&T INC COM	2,722,556
24,180	PRECISION CASTPARTS CORP COM	2,330,227
82,000	MICROSOFT CORP COM	2,255,820
29,490	HELMERICH & PAYNE INC COM	2,123,870
33,765	PROCTER & GAMBLE CO COM	2,053,250
20,608	CHEVRON CORP COM	2,042,871
14,000	MOSAIC CO COM	2,025,800
29,100	CUMMINS INC	1,906,632

## Largest Fixed Income Securities (Non-Commingled Funds)

Par Value	Security	Market Value
35,000,000	FEDERAL HOME LN MTG CORP DEB 0% DUE 09-18-2028/03-18-2009 REG	\$9,254,700
7,000,000	CMO COMMERCIAL MTG TR 2007-GG9 CL AJ FLTRT DUE 03-10-2039 BEO	5,493,110
5,825,000	CMO LB-UBS COML MTG TR 2007-C6 MTG PASS THRU CTF-CL A-J DUE 07-15-2040 REG	4,811,362
7,140,000	CMO WACHOVIA BK COML MTG TR COML MTG PASS-TH DUE 12-15-2043 REG	4,629,825
5,500,000	CMO CR SUISSE COML MTG TR SER 2006-C4 SER 2006-C4 CL-AJ DUE 09-15-2039 REG	4,458,316
4,750,000	WACHOVIA BK COML MTG TR COML MTG PASS-THMTG PASS THRU CTF CL A-J 5-15-46	3,830,666
5,000,000	CMO LB UBS COML MTG TR 2007 C7 MTG PASS THRU CTF CL CL B DUE 09-15-2045 REG	3,775,765
4,724,000	PVTPL JP MORGAN CHASE COML MT SECS TR 2008 C PASSTHRU CTF CL B 144A 2-15-51	3,650,825
2,899,000	UNITED STATES TREAS BDS DTD 02/15/1996 6% DUE 02-15-2026 REG	3,395,227
25,000,000	FEDERAL HOME LN MTG CORP FHLMC MTN 0% DUE 06-25-2037/12-25-2008 BEO	3,374,750

*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 6/30/08	Fees Accrued During FY08
<b><u>Management and Performance Fees:</u></b>		
Cash	\$ 79,162,082	\$ 0
Cash/S&P 500 Futures	37,606,084	0
Internal Fixed Income	12,631,210	0
Transition Account	304,778	0
Aberdeen Asset Management	111,897,215	168,552
ABRY Partners	338,798	80,477
Acadian Asset Management	162,401,993	1,299,714
AEW	8,046,153	187,500
Albourne	0	240,000
Algert Coldiron Investments (ACI)	25,870,749	570,137
American Infrastructure MLP	3,047,731	135,059
Apollo Real Estate	11,233,339	210,447
AQR Capital Management	16,199,805	394,660
Artio (formerly Julius Baer)	144,007,635	835,272
Assiduous Strategic Investment (ASI)	984,138	147,168
Audax Group	5,021,642	125,391
AXA Rosenberg	46,143,835	213,055
Barclays Global Investors	46,525,762	1,436,442
Black River	14,819,956	669,910
Blackrock, Inc.	21,125,224	489,829
Bridgewater Associates	20,795,163	4,026,537
Colony Capital	4,043,000	235,970
Concordia	13,604,732	382,673
CQS Management	20,512,835	407,078
CarVal Investors (CVI)	19,580,407	273,662
Deephaven Capital Management	18,987,200	126,897
EIF Management	4,103,839	57,581
Enhanced Investment Technologies (INTECH)	105,812,661	400,197
GMO	26,143,592	1,562,846
Grove Street Advisors	69,682,862	2,000,000
ING Clarion	82,612,072	827,160
Luxor Capital	16,573,138	0
Natural Gas Partners	3,180,152	377,758
Och-Ziff Real Estate	6,428,258	0
Ospraie Management	15,065,546	0
Paulson and Co.	33,085,670	4,030,311
Pinnacle Associates	43,943,307	476,481
Principal Global Investors	133,917,740	1,237,611
RMK Timberland	25,450,796	205,989
Rothschild Asset Management	45,781,271	296,315
Silchester International Investors	92,438,467	680,958
Stark Investments (Shepard)	26,021,861	425,112
Structured Portfolio Management (SPM)	10,284,957	167,824
Taconic Capital Advisors	20,416,956	0
Urdang	18,150,526	293,698
Vicis Capital	20,653,010	985,107
Western Asset Management Company	69,337,250	175,241
<b>Total Management and Performance Fees</b>	<b>\$1,713,975,397</b>	<b>\$26,856,619</b>
<b><u>Other Investment Expenses:</u></b>		
Investment Custodial Fee		\$ 232,728
Performance Management		67,950
General Consultant (Monitoring) Fee		225,000
Other Investment Expenses		249,474
<b>Total Investment Income Expenses</b>		<b>\$27,631,771</b>
<b><u>Securities Lending Expenses:</u></b>		
Borrower Rebates		\$ 3,257,768
Bank Fees		177,066
<b>Total Securities Lending Expenses</b>		<b>\$ 3,434,834</b>

## Schedule of Brokerage Commissions

Brokerage Firm	Total Commission	Number of Shares	Commission Rate
MERRILL LYNCH PIERCE FENNER & SMITH	\$ 33,220	2,119,844	\$0.0157
LEHMAN BROTHERS SECS ASIA LTD HK	31,515	823,720	0.0383
DEUTSCHE SECURITIES AUSTRALIA LTD	26,492	2,008,368	0.0132
UNION BANK OF SWIT NEW YK DTC 642	24,410	3,053,378	0.0080
CSFB NEW YORK DTC 355	24,121	1,094,480	0.0220
MORGAN STANLEY INT. LDN (CST 50701)	20,114	765,111	0.0263
GOLDMAN SACHS INTL LDN (CST IB01)	18,835	1,245,907	0.0151
BNY ESI SECURITIES CO.	16,498	363,684	0.0454
NORTHERN TRUST CO	16,015	356,425	0.0449
JEFFERIES INTERNATIONAL LTD LONDON	14,908	624,660	0.0239
INSTINET U.K LIMITED LONDON	13,606	1,196,889	0.0114
CITIGROUP GLOBAL MKTS INC/SMITH BARNEY	12,513	782,920	0.0160
ROSENBLATT SECURITIES LLC 501	12,505	577,110	0.0217
GUZMAN & COMPANY	9,972	498,450	0.0200
BEAR STEARNS SECURITIES CORP.	7,766	287,370	0.0270
CAP INSTITUTIONAL SERVICES INC	7,313	366,666	0.0199
PERSHING SECURITIES LTD	6,443	128,218	0.0503
JP MORGAN SECURITIES LIMITED LONDON	5,996	340,420	0.0176
DONALDSON LUFKIN AND JENRETTE SECS	5,986	246,273	0.0243
LYNCH JONES & RYAN	5,541	417,578	0.0133
WEEDEN AND & CO	5,468	251,100	0.0218
ITG INC NEW YORK	5,240	288,515	0.0182
TEZAL MENKUL DEGERLER	5,149	234,184	0.0220
NEEDHAM & COMPANY	4,680	113,100	0.0414
CITATION GROUP	4,193	85,517	0.0490
SANFORD C.BERNSTEIN LTD	4,065	85,445	0.0476
INVESTMENT TECHNOLOGY GROUP INC	3,900	287,604	0.0136
OPPENHEIMER INTERNATIONAL LONDON	3,849	125,551	0.0307
HSBC SECURITIES NEW YORK	3,165	25,565	0.1238
SOCIETE GENERALE LONDON	3,007	80,928	0.0372
OTHERS (108 firms less than \$3,000 each)	98,649	4,517,867	0.0218
<b>TOTAL</b>	<b>\$455,131</b>	<b>23,392,847</b>	
<b>AVERAGE COMMISSION RATE</b>			<b>\$0.0195</b>



### *The Missouri State Game Bird*

*The bobwhite quail (Colinus virginianus), also known as the northern bobwhite, became the official state game bird on July 13, 2007. The northern bobwhite is found throughout Missouri in a variety of habitats. In the fall and winter, northern bobwhites form loose social groups better known as a covey. A covey will generally contain ten to twelve quail, but can have as many as twenty or thirty birds. The familiar two- or three-note “bobwhite” whistle is made by males in the spring and summer to attract females. (RSMo 10.012).*

### *The Missouri Floral Emblem*

*On March 16, 1923, a bill was signed naming the white hawthorn blossom the official state floral emblem of Missouri. Known as the “red haw” or “white haw,” the hawthorn (Crataegus) is a member of the great rose family, which resembles the apple group. The hawthorn blossoms have greenish-yellow centers and form in white clusters. More than 75 species of the hawthorn grow in Missouri, particularly in the Ozarks. (RSMo 10.030)*



# Actuary's Certification Letter

**GRS**

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October 10, 2008

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:

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 which
- (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, 2008. This valuation indicates that contribution rates for the period beginning July 1, 2009 that are at least equal to the calculated contribution rates will meet the Board's financial objective. The calculated contribution rates are 31.43% of payroll for the 7,529 Non-Uniformed employees and 39.98% of payroll for the 1,070 Uniformed patrol employees.

The actuarial valuations are based upon financial and participant data (which is prepared by retirement system staff) assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death, and disability among MPERS' members and their beneficiaries. We review the data for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuations. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions were adopted by the Board of Trustees and were based upon actual experience of MPERS during the period July 1, 1999 to June 30, 2004. Assets were valued using a three-year smoothing method. The assumptions and methods utilized in this valuation, in our opinion, meet the parameters established by the Governmental Accounting Standards Board Statement No. 25.

The current benefit structure is outlined in the Introductory Section. We provided the information used in the supporting schedules in the Actuarial Section and the Schedules of Funding Progress in the Financial Section, as well as the employer contribution rates shown in the Schedule of Employer Contributions in the Financial Section.

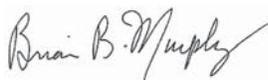
# Actuary's Certification Letter

The Retirement Board  
Missouri Department of Transportation  
and Highway Patrol Employees' Retirement System  
October 10, 2008  
Page 2

The signing actuaries are Members of the American Academy of Actuaries (M.A.A.A.) as indicated, and meet 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. However, a material decline in the funded status for any reason would lead to a need for increased contributions.**

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, 2008
Actuarial Cost Method .....	Entry Age Normal
Amortized Method .....	Level percent of payroll
Remaining Amortization Period .....	27 years from July 1, 2009
Amortization Approach .....	Closed
Asset Valuation Method.....	3-year smoothing
Actuarial Assumptions:	
Investment Rate of Return .....	8.25%
Projected Salary Increase .....	3.75% to 11.75%
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 1999-2004 study of experience of the MPERS. The assumptions are reviewed from time to time to keep them reasonably current with expected experience.

## Economic Assumptions

*The investment return rate* used in making the valuation was 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, 2005** 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 1971 Group Annuity Mortality Tables projected to the year 2000, set back 1 year for males and 7 years for females. Related values are shown on page 44. This table was first used for the **June 30, 2000** 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, 2005** valuation. The rates for reduced retirement were first used in the **June 30, 2005** 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, 2005** valuation.

**The probabilities of withdrawal** from service, **death in service and disability** are shown for sample ages on page 43 and page 45. The death-in-service and disability rates were first used in the **June 30, 2005** valuation. The withdrawal rates for uniform members were first used in the **June 30, 2007** valuation. The withdrawal rates for non-uniform members were first used in the **June 30, 2005** 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.

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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	25.00%	18.00%	8.00%	8.00%
1-2	12.00	11.00	6.00	6.00
2-3	7.00	9.00	4.50	4.50
3-4	6.00	7.00	4.00	4.00
4-5	5.00	6.00	4.00	4.00

## 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	4.70%	6.25%	4.50%	4.50%
30	3.78	5.55	3.78	3.78
35	2.86	4.82	2.22	2.22
40	1.96	3.78	1.20	1.20
45	1.30	3.12	0.82	0.82
50	0.98	3.00	0.46	0.46
55	0.66	1.50	0.18	0.18
60	0.21	0.50	0.10	0.10

# Summary of Actuarial Methods and Assumptions

## Salary Increase Assumptions For an Individual Member

### Age Based Salary Scale

Age	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%	6.00%	3.75%	9.75%
25	5.66	3.75	9.41	5.40	3.75	9.15
30	3.30	3.75	7.05	3.50	3.75	7.25
35	2.05	3.75	5.80	1.75	3.75	5.50
40	1.45	3.75	5.20	1.10	3.75	4.85
45	0.95	3.75	4.70	0.64	3.75	4.39
50	0.60	3.75	4.35	0.37	3.75	4.12
55	0.38	3.75	4.13	0.29	3.75	4.04
60	0.30	3.75	4.05	0.00	3.75	3.75

## 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	\$136	\$139	29.17	34.67
55	131	134	24.82	30.06
60	124	127	20.70	25.67
65	115	119	16.82	21.50
70	105	109	13.32	17.57
75	93	97	10.36	13.99
80	80	84	7.83	10.91

*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	MoDOT, Civilian Patrol and MPERS				Uniformed Patrol	
	Male		Female		Male	Female
	Normal	Early	Normal	Early	Normal	
50	18.0%	0.0%	18.0%	0.0%	50.0%	50.0%
55	18.0	4.0	18.0	4.0	25.0	25.0
60	18.0	4.0	20.0	4.0	100.0	100.0
65	45.0	0.0	40.0	0.0	100.0	100.0
70	100.0	0.0	100.0	0.0	100.0	100.0

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

Age	MoDOT, Civilian Patrol and MPERS		Uniformed Patrol	
	Male	Female	Male	Female
25	0.01%	0.06%	0.03%	0.03%
30	0.01	0.07	0.03	0.03
35	0.06	0.10	0.04	0.04
40	0.09	0.16	0.06	0.06
45	0.21	0.29	0.09	0.09
50	0.36	0.45	0.15	0.15
55	0.66	0.54	0.00	0.00
60+	0.00	0.00	0.00	0.00

## Summary of Member Data Included In Valuations

	Non-Uniformed			Uniformed Patrol	Grand Total
	Civilian Patrol	MoDOT and MPERS	Non-Uniformed Total		
<b>Active Members</b>					
Closed Plan	647	3,920	4,567	778	5,345
Year 2000 Plan	478	2,484	2,962	292	3,254
Total Active Members	<u>1,125</u>	<u>6,404</u>	<u>7,529</u>	<u>1,070</u>	<u>8,599</u>
<i>Total Active Members Prior Year</i>	<i>1,135</i>	<i>6,451</i>	<i>7,586</i>	<i>1,054</i>	<i>8,640</i>
<b>Retiree -- Regular Pensioners</b>					
Closed Plan	418	3,851	4,269	756	5,025
Year 2000 Plan	304	1,838	2,142	1	2,143
Total Regular Pensioners	<u>722</u>	<u>5,689</u>	<u>6,411</u>	<u>757</u>	<u>7,168</u>
Self Insured Disability Pensioners	6	89	95	4	99
Fully Insured Disability Pensioners	3	54	57	1	58
Terminated Vested Members	<u>217</u>	<u>1,320</u>	<u>1,537</u>	<u>150</u>	<u>1,687</u>
<b>Total</b>	<b><u>2,073</u></b>	<b><u>13,556</u></b>	<b><u>15,629</u></b>	<b><u>1,982</u></b>	<b><u>17,611</u></b>
Active Member Valuation Payroll	\$40,220,687	\$261,235,905	\$301,456,592	\$ 67,968,061	\$ 369,424,653
<i>Active Member Valuation Payroll Prior Year</i>	<i>\$39,772,873</i>	<i>\$259,468,418</i>	<i>\$299,241,291</i>	<i>\$ 61,601,130</i>	<i>\$ 360,842,421</i>
Unfunded Actuarial Accrued Liability	N/A	N/A	\$946,205,647	\$289,525,854	\$1,235,731,501

*Member data for actuarial valuation is as of May 31, 2008.*

# 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	-	49	5	-	-	-	-	54	1,864,526
30-34	-	157	114	4	-	-	-	275	11,416,254
35-39	-	109	301	127	3	-	-	540	24,276,275
40-44	-	106	179	235	156	16	-	692	31,915,613
45-49	-	95	184	198	320	160	38	995	46,160,608
50-54	-	54	136	141	183	134	116	764	34,839,131
55-59	-	46	79	81	123	36	71	436	19,576,249
60-64	-	15	28	36	24	11	29	143	6,242,837
65-69	-	5	4	3	-	-	2	14	589,941
70+	-	1	-	2	-	1	3	7	300,752
<b>Totals</b>	<b>0</b>	<b>637</b>	<b>1,030</b>	<b>827</b>	<b>809</b>	<b>358</b>	<b>259</b>	<b>3,920</b>	<b>\$177,182,186</b>

**Average Age** 46.7 years  
**Average Service** 17.8 years  
**Average Pay** \$45,200

### 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	8	-	-	-	-	-	-	8	\$ 138,922
20-24	214	2	-	-	-	-	-	216	6,496,024
25-29	336	137	-	-	-	-	-	473	17,360,224
30-34	262	159	-	-	-	-	-	421	14,938,233
35-39	219	122	-	-	-	-	-	341	11,114,714
40-44	208	125	-	-	-	-	-	333	11,091,327
45-49	197	113	-	-	-	-	-	310	10,119,906
50-54	123	73	-	-	-	-	-	196	6,396,252
55-59	72	50	-	-	-	-	-	122	4,089,327
60-64	36	18	-	-	-	-	-	54	1,957,138
65-69	5	4	-	-	-	-	-	9	320,940
70+	1	-	-	-	-	-	-	1	30,712
<b>Totals</b>	<b>1,681</b>	<b>803</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,484</b>	<b>\$84,053,719</b>

**Average Age** 38.1 years  
**Average Service** 3.7 years  
**Average Pay** \$33,838

*Member data for actuarial valuation is as of May 31, 2008.*

# Active Members By Attained Age and Years of Service

## Uniformed Patrol

### Closed Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	-	-	-	-	-	-	-	0	0
25-29	-	5	-	-	-	-	-	5	270,876
30-34	-	27	54	-	-	-	-	81	4,640,030
35-39	-	17	182	30	-	-	-	229	14,641,868
40-44	-	5	65	100	15	1	-	186	13,289,167
45-49	-	2	17	35	65	24	-	143	11,092,185
50-54	-	-	3	2	22	35	38	100	7,928,601
55-59	-	-	-	-	1	6	27	34	2,794,197
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
<b>Totals</b>	<b>0</b>	<b>56</b>	<b>321</b>	<b>167</b>	<b>103</b>	<b>66</b>	<b>65</b>	<b>778</b>	<b>\$54,656,924</b>

Average Age 42.8 years  
 Average Service 17.7 years  
 Average Pay \$70,253

### 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	41	-	-	-	-	-	-	41	1,611,756
25-29	78	39	-	-	-	-	-	117	5,277,431
30-34	33	63	-	-	-	-	-	96	4,577,638
35-39	4	23	-	-	-	-	-	27	1,324,232
40-44	4	5	-	-	-	-	-	9	420,467
45-49	-	1	-	-	-	-	-	1	48,751
50-54	-	1	-	-	-	-	-	1	50,862
55-59	-	-	-	-	-	-	-	0	0
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
<b>Totals</b>	<b>160</b>	<b>132</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>292</b>	<b>\$13,311,137</b>

Average Age 30.1 years  
 Average Service 4.2 years  
 Average Pay \$45,586

Member data for actuarial valuation is as of May 31, 2008.



## Schedule of Active Member Valuation Data

Actuarial Valuation Date	Number of Active Members	Annualized Payroll	Average Pay	Percent Change in Average Pay from Prior Year
06/30/1999	9,140	\$298,673,247	\$32,678	1.8%
06/30/2000	9,171	312,532,009	34,078	4.3%
06/30/2001	9,087	327,049,257	35,991	5.6%
06/30/2002	8,695	312,747,492	35,969	(0.1)%
06/30/2003	8,892	318,744,192	35,846	(0.3)%
06/30/2004	9,002	328,210,887	36,460	1.7%
06/30/2005	9,193	345,695,867	37,604	3.1%
06/30/2006	9,033	348,614,699	38,593	2.6%
06/30/2007	8,640	360,842,421	41,764	8.2%
06/30/2008	8,599	369,424,653	42,961	2.9%
<b>Ten-Year Average</b>				<b>3.0%</b>

*Member data for Actuarial valuation is as of May 31, 2008.*

## 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. Progress on solvency has been negatively impacted by the 2000-2002 investment market.

Valuation Date June 30	(1) Retirees and Beneficiaries (Millions)	(2) Active and Inactive Members (Millions)	Present Valuation Assets (Millions)	Portion of Present Values Covered by Present Assets		
				(1)	(2)	Total
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%	56%
2007 *	1,810	1,087	1,686	93%	0%	58%
2008	1,873	1,147	1,784	95%	0%	59%

\* 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)	\$1,211,460,405
Normal Cost	47,283,438
Contributions	(124,515,792)
Interest	96,759,648
Net Change in LTD Assets	0
Expected UAAL Before Any Changes	1,230,987,699
Effect of Changes in Assumptions & Methods	0
Expected UAAL After Changes	1,230,987,699
End of Year UAAL (at June 30)	1,235,731,501
Gain/(Loss) for Year	\$ (4,743,802)
Gain/(Loss) as a percent of actuarial accrued liabilities at start of year (\$2,740.4 million)	(0.2)%

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 %
<b>2008</b>	<b>(0.2)%</b>

# 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
<b><u>FY2008</u></b>									
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%
<b><u>FY2007</u></b>									
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%
<b><u>FY2006</u></b>									
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%
<b><u>FY2005</u></b>									
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%
<b><u>FY2004</u></b>									
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%
<b><u>FY2003</u></b>									
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%
<b><u>FY2002</u></b>									
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%
<b><u>FY2001</u></b>									
Retirees	531	\$13,546,408	111	\$1,630,433	4,374	\$101,693,353	\$23,250	21.66%	9.97%
Beneficiaries	108	1,447,292	112	412,086	1,637	13,556,769	8,281	10.62%	10.89%
Disabilities	6	70,722	87	1,001,360	181	1,553,154	8,581	-28.20%	3.93%
<b><u>FY2000</u></b>									
Retirees	323	\$ 9,406,709	138	\$1,665,215	3,954	\$ 83,590,958	\$21,141	10.72%	4.62%
Beneficiaries	102	1,255,689	61	257,043	1,641	12,255,372	7,468	10.72%	7.28%
Disabilities	8	107,281	2	13,047	262	2,163,190	8,256	-4.69%	-0.32%

Only 9 years of information are available.  
Data for this chart is as of June 30, 2008.

\* Most new disabilities are covered/paid by the Standard Insurance Co.

# Summary of Plan Provisions \*

## Comparison of the Closed Plan and the Year 2000 Plan For the Year Ended June 30, 2008

Plan Provision	Closed Plan	Year 2000 Plan
<b>Membership Eligibility</b>	Members who work in a position normally requiring at least 1,040 hours of work a year.	Members hired for the first time on or after July 1, 2000, in a position 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.
<b>Normal Retirement Eligibility</b>	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. Age 55 with 4 years of service (active uniformed members only). Age 60 - mandatory with 5 years of service (active uniformed members only).	Age 62 with 5 years of service. "Rule of 80" / minimum age 48. Age 60 - mandatory with 5 years of service (active uniformed members only).
<b>Early Retirement Eligibility</b>	Age 55 with 10 years of creditable service.	Age 57 with 5 years creditable service.
<b>Benefit</b> Life Benefit	1.6% x FAP** x service (Base benefit is increased by 33 1/3% for uniformed patrol members only.)	1.7% x FAP** x service
Temporary Benefit	Not available.	0.8% x FAP** x service (until age 62 – only if retiring under "Rule of 80").
<b>Vesting</b>	5 years of service.	5 years of service.
<b>COLA</b> (Cost-of-Living Allowance)	If hired before August 28, 1997, annual COLA is a minimum of 4%, maximum 5%, based on 80% of the increase in the CPI-U over the previous year, up to a maximum of 65% of original benefit. After 65% cap is reached, annual COLA increases will be equal to 80% of the change in the CPI-U, with a maximum of 5%. If hired after the above date, annual COLAs will be equal to 80% of the increase in the CPI-U, maximum 5%, with no guaranteed minimum.	Annual COLA is equal to 80% of the change in the CPI-U with a maximum rate of 5%.
<b>Survivor Benefit</b> (Death before retirement) Non Duty-Related Death	Survivor benefit to eligible spouse calculated using the Joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children until age 21.  If at least 3, but less than 5, years of service the survivor benefit is calculated using 25% of the member's base benefit calculated as if the member retired on their date of death.	Survivor benefit to eligible spouse calculated using the Joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children until age 21.
Duty-Related Death	Survivor benefit to eligible spouse or children no less than 50% of final average pay (no service requirement).	Survivor benefit to eligible spouse or children no less than 50% of final average pay (no service requirement).
<b>Optional Forms of Payment</b>	Payment options include: -Life Income Annuity -Unreduced Joint & 50% Survivor -Joint & 100% Survivor -60 or 120 Guaranteed Payments -BackDROP	Payment options include: -Life Income Annuity -Joint & 50% Survivor -Joint & 100% Survivor -120 or 180 Guaranteed Payments -BackDROP
<b>Disability</b>	Long-Term Disability and Work-Related Disability	Long-Term Disability and Work-Related Disability

\* 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. A complete summary plan description is available at the MPERS office.

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

## Legislative Changes

Governor Matt Blunt signed into law CCS SS HCS HB 1549 on July 7, 2008. This legislation prohibits aliens unlawfully present in the United States from receiving a benefit from MPERS. Upon application for benefits, individuals must submit acceptable proof-of-age and lawful presence documents. Acceptable documentation includes US birth certificate (with embossed or raised

seal issued by a state or local government); US Passport (valid or expired); Certificate of Citizenship; Certificate of Naturalization; Certificate of Birth Abroad or a valid Missouri driver's license. The effective date of this legislation is August 28, 2008.

There were no benefit increases enacted in fiscal year 2008.



## *The Missouri State Capitol*

*State government in Missouri focuses on the state's beautiful, domed Capitol, dominating the bluffs of the Missouri River in Jefferson City.*

*The dome, rising 238 feet above ground level and topped by a bronze statue of Ceres, goddess of vegetation, is the first view of Jefferson City for travelers arriving from the north. The structure is Jefferson City's leading tourist attraction and is a mecca for school groups who arrive by busloads, particularly during General Assembly sessions when they fill the galleries to watch the Senate and House of Representatives in action.*

*In addition to housing the two legislative bodies, the Capitol provides office space for the governor, lieutenant governor, secretary of state, treasurer, state auditor and some administrative agencies. The structure is also notable for its architectural features, including its eight 48-foot columns on the south portico and six 48-foot columns on the north side; its 30-foot-wide stairway and its bronze front doors, each 13 by 18 feet -- largest cast since the Roman era.*

*The Capitol's first floor features the State Museum. Outstanding paintings, pediments and friezes decorate the Capitol interior. A prime attraction is a series of Thomas Hart Benton murals in the House Lounge.*

*Statuary is a prominent feature of the Capitol grounds. Heroic bronze figures depicting Missouri's two great rivers, the Mississippi and Missouri, and a 13-foot statue of Thomas Jefferson dominate the south entrance. A bronze relief depicting the signing of the Louisiana Purchase by Livingston, Monroe and Marbois and the Fountain of the Centaurs are the most outstanding features on the north grounds.*

*The present Capitol, completed in 1917 and occupied the following year, is the third Capitol in Jefferson City and the sixth in Missouri history. The first seat of state government was housed in the Mansion House, Third and Vine Streets, St. Louis; the second was in the Missouri Hotel, Maine and Morgan Streets, also in St. Louis. St. Charles was designated as temporary capital of the state in 1821 and remained the seat of government until 1826 when Jefferson City became the permanent capital city. The first Capitol in Jefferson City burned in 1837 and a second structure completed in 1840 burned when the dome was struck by lightning on February 5, 1911.*

*The present Capitol was constructed for \$4,215,000, including site and furnishings. It is five stories high, 437 feet long, 300 feet wide in the center and 200 feet wide in the wings. The dome is 238 feet high and the height of the wings is 88 feet. It includes 650,000 square feet of floor space.*

# Changes in Net Assets

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

	Fiscal Year									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Additions</b>										
Employer Contributions	\$ 69,569,654	\$70,191,993	\$ 81,155,196	\$ 77,440,468	\$ 76,806,313	\$ 86,724,914	\$102,240,145	\$111,271,679	\$121,264,532	\$ 123,335,151
Other Contributions	0	0	197,823	640,254	2,584,257	842,665	364,680	271,038	529,926	1,192,527
Net Investment Income	149,470,276	52,025,236	(32,956,576)	(88,252,400)	36,526,003	180,910,907	144,641,068	212,206,238	283,549,424	(42,915,886)
Other Income	0	0	0	0	0	33,851	31,104	41,542	31,580	31,546
<b>Total Additions to Plan Net Assets</b>	<u>219,039,930</u>	<u>122,217,229</u>	<u>48,396,443</u>	<u>(10,171,678)</u>	<u>115,916,573</u>	<u>268,512,337</u>	<u>247,276,997</u>	<u>323,790,497</u>	<u>405,375,462</u>	<u>81,643,338</u>
<b>Deductions</b>										
Benefit Payments	86,255,201	95,402,854	111,985,064	133,498,818	144,334,345	154,987,027	157,742,337	164,997,406	175,970,479	185,801,362
Administrative Expenses	679,362	665,941	835,215	1,334,555	1,451,855	1,639,133	1,916,592	1,927,594	2,120,764	2,371,215
<b>Total Deductions from Plan Net Assets</b>	<u>86,934,563</u>	<u>96,068,795</u>	<u>112,820,279</u>	<u>134,833,373</u>	<u>145,786,200</u>	<u>156,626,160</u>	<u>159,658,929</u>	<u>166,925,000</u>	<u>178,091,243</u>	<u>188,172,577</u>
<b>Change in Net Assets</b>	<u>\$132,105,367</u>	<u>\$26,148,434</u>	<u>\$(64,423,836)</u>	<u>\$(145,005,051)</u>	<u>\$(29,869,627)</u>	<u>\$111,886,177</u>	<u>\$ 87,618,068</u>	<u>\$156,865,497</u>	<u>\$227,284,219</u>	<u>\$(106,529,239)</u>

# Benefit Payments By Type

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

Type of Benefit	Fiscal Year									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Age &amp; Service Benefits:</b>										
Retiree & Survivor										
Annuity Payments	\$85,481,941	\$94,593,110	\$111,189,631	\$121,786,745	\$131,689,970	\$138,767,316	\$145,118,809	\$151,647,091	\$159,145,368	\$167,654,271
BackDROP Payments	0	0	0	10,771,393	11,696,862	14,318,622	8,880,770	9,721,059	13,177,432	14,631,932
<b>Disability Benefits:</b>										
Long-Term Disability	553,260	519,744	490,433	515,680	537,513	555,434	475,948	386,026	288,908	223,501
Work-Related Disability <sup>(1)</sup>	0	0	0	0	0	633,299	718,248	747,723	703,159	728,507
Normal Disability <sup>(1)</sup>	0	0	0	0	0	302,356	295,776	244,208	220,490	207,417
Insured Disability <sup>(2)</sup>	0	0	0	0	0	0	1,837,786	1,796,299	1,905,122	1,835,734
<b>Death Benefits</b>	220,000	290,000	305,000	425,000	410,000	410,000	415,000	455,000	530,000	520,000
<b>Total Benefits</b>	\$86,255,201	\$95,402,854	\$111,985,064	\$133,498,818	\$144,394,345	\$154,987,027	\$157,742,337	\$164,997,406	\$175,970,479	\$185,801,362

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

<sup>(2)</sup> 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	20	41	5	0	1	183	250
201 - 400	100	110	3	1	15	292	521
401 - 600	142	105	4	0	12	260	523
601 - 800	191	48	6	2	5	209	461
801 - 1000	203	28	2	3	3	153	392
1001 - 1200	235	17	3	3	0	134	392
1201 - 1400	263	6	2	4	1	104	380
1401 - 1600	286	3	1	5	0	79	374
1601 - 1800	323	6	0	5	0	75	409
1801 - 2000	344	2	0	5	0	57	408
2001 - 2200	317	1	0	2	0	51	371
2201 - 2400	351	0	0	3	0	44	398
2401 - 2600	311	0	0	0	0	39	350
2601 - 2800	282	1	0	2	0	32	317
2801 - 3000	200	0	0	0	0	17	217
> 3000	1,421	0	0	1	0	104	1,526
<b>TOTALS</b>	<b>4,989</b>	<b>368</b>	<b>26</b>	<b>36</b>	<b>37</b>	<b>1,833</b>	<b>7,289</b>

### MoDOT

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	17	31	5	0	1	170	224
201 - 400	73	90	3	1	14	274	455
401 - 600	104	94	4	0	9	239	450
601 - 800	152	41	6	2	5	181	387
801 - 1000	163	23	2	3	3	130	324
1001 - 1200	209	15	3	3	0	120	350
1201 - 1400	227	6	2	4	1	78	318
1401 - 1600	248	3	1	5	0	62	319
1601 - 1800	277	6	0	5	0	61	349
1801 - 2000	290	2	0	1	0	40	333
2001 - 2200	264	1	0	2	0	29	296
2201 - 2400	300	0	0	3	0	33	336
2401 - 2600	280	0	0	0	0	27	307
2601 - 2800	247	1	0	1	0	26	275
2801 - 3000	171	0	0	0	0	16	187
> 3000	810	0	0	0	0	79	889
<b>TOTALS</b>	<b>3,832</b>	<b>313</b>	<b>26</b>	<b>30</b>	<b>33</b>	<b>1,565</b>	<b>5,799</b>

\* This chart includes four retirement system staff retirees.

## Schedule of Retired Members By Type of Benefit (continued)

### 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	2	0	0	0	0	4	6
401 - 600	13	0	0	0	0	6	19
601 - 800	5	0	0	0	0	13	18
801 - 1000	4	0	0	0	0	8	12
1001 - 1200	1	0	0	0	0	6	7
1201 - 1400	4	0	0	0	0	9	13
1401 - 1600	2	0	0	0	0	12	14
1601 - 1800	3	0	0	0	0	10	13
1801 - 2000	4	0	0	2	0	14	20
2001 - 2200	3	0	0	0	0	18	21
2201 - 2400	2	0	0	0	0	10	12
2401 - 2600	2	0	0	0	0	10	12
2601 - 2800	7	0	0	1	0	6	14
2801 - 3000	11	0	0	0	0	1	12
> 3000	545	0	0	1	0	22	568
<b>TOTALS</b>	<b>608</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>150</b>	<b>762</b>

### Civilian Patrol

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	2	10	0	0	0	12	24
201 - 400	25	20	0	0	1	14	60
401 - 600	25	11	0	0	3	15	54
601 - 800	34	7	0	0	0	15	56
801 - 1000	35	5	0	0	0	15	55
1001 - 1200	25	2	0	0	0	8	35
1201 - 1400	32	0	0	0	0	17	49
1401 - 1600	36	0	0	0	0	5	41
1601 - 1800	43	0	0	0	0	4	47
1801 - 2000	50	0	0	2	0	3	55
2001 - 2200	50	0	0	0	0	4	54
2201 - 2400	49	0	0	0	0	1	50
2401 - 2600	29	0	0	0	0	2	31
2601 - 2800	27	0	0	0	0	0	27
2801 - 3000	18	0	0	0	0	0	18
> 3000	65	0	0	0	0	3	68
<b>TOTALS</b>	<b>545</b>	<b>55</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>118</b>	<b>724</b>

# 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+
1999	<b>Average Benefit</b>	\$ 384	652	907	1,296	1,743	2,477	2,982	3,675
	Average FAP	\$1,915	2,136	1,989	2,461	2,500	3,219	3,517	3,932
	<b>Current Retirees</b>	1	7	11	17	36	34	38	21
2000	<b>Average Benefit</b>	\$ 286	575	988	1,099	2,059	2,519	2,805	3,770
	Average FAP	\$1,614	2,360	2,621	2,210	2,902	3,351	3,561	4,190
	<b>Current Retirees</b>	2	9	12	16	52	68	56	39
2001	<b>Average Benefit</b>	\$ 301	483	719	1,193	2,078	2,738	2,724	3,710
	Average FAP	\$2,051	1,774	1,563	2,301	2,834	3,399	3,699	4,330
	<b>Current Retirees</b>	19	23	25	31	75	148	61	25
2002	<b>Average Benefit</b>	\$ 407	596	740	1,213	2,229	2,750	2,800	2,799
	Average FAP	\$2,216	2,627	2,447	2,603	3,128	3,712	4,150	4,063
	<b>Current Retirees</b>	1	16	13	29	57	63	32	19
2003	<b>Average Benefit</b>	\$ 355	486	725	1,263	2,094	2,684	2,785	3,186
	Average FAP	\$2,299	1,955	2,060	2,379	2,969	3,455	3,841	4,085
	<b>Current Retirees</b>	13	11	12	21	47	37	31	15
2004	<b>Average Benefit</b>	\$ 342	578	942	1,306	2,110	2,806	2,459	3,265
	Average FAP	\$3,034	2,691	2,806	2,564	2,871	3,453	3,639	4,642
	<b>Current Retirees</b>	10	15	19	23	66	60	26	8
2005	<b>Average Benefit</b>	\$ 362	442	710	1,395	2,327	2,497	2,901	2,938
	Average FAP	\$2,558	1,964	2,555	2,676	3,367	3,319	3,906	4,003
	<b>Current Retirees</b>	12	19	19	9	51	22	19	7
2006	<b>Average Benefit</b>	\$ 346	565	783	1,366	2,352	2,552	3,511	3,351
	Average FAP	\$3,109	2,769	2,711	3,043	3,441	3,379	4,182	4,086
	<b>Current Retirees</b>	14	16	18	25	59	33	11	7
2007	<b>Average Benefit</b>	\$ 256	479	725	1,544	2,276	2,851	3,151	3,003
	Average FAP	\$2,218	2,409	2,475	3,007	3,389	3,785	3,970	3,938
	<b>Current Retirees</b>	23	28	21	31	68	38	15	7
2008	<b>Average Benefit</b>	\$ 259	442	767	1,679	2,286	2,967	2,757	3,588
	Average FAP	\$2,262	2,437	2,925	3,359	3,444	3,920	3,513	4,463
	<b>Current Retirees</b>	29	31	27	38	59	52	18	5

FAP = Final Average Pay

# Schedule of Average Monthly Benefit Payments (continued)

## 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+
1999	<b>Average Benefit</b>	\$ 0	504	0	2,014	4,087	4,787	5,167	0
	Average FAP	\$ 0	1,399	0	2,926	4,472	4,768	4,679	0
	<b>Current Retirees</b>	0	1	0	1	10	30	5	0
2000	<b>Average Benefit</b>	\$ 0	0	0	2,119	4,319	4,700	5,209	0
	Average FAP	\$ 0	0	0	3,053	4,792	4,867	4,735	0
	<b>Current Retirees</b>	0	0	0	2	2	15	8	0
2001	<b>Average Benefit</b>	\$ 0	569	0	1,293	3,455	4,624	5,428	5,885
	Average FAP	\$ 0	801	0	2,718	4,286	4,849	5,341	5,352
	<b>Current Retirees</b>	0	3	0	1	6	11	4	1
2002	<b>Average Benefit</b>	\$ 0	726	1,829	3,322	3,920	4,611	5,060	6,552
	Average FAP	\$ 0	2,564	3,580	4,566	4,669	5,380	5,373	5,624
	<b>Current Retirees</b>	0	1	1	1	9	12	10	1
2003	<b>Average Benefit</b>	\$ 380	493	0	0	3,517	4,538	4,565	0
	Average FAP	\$1,051	1,514	0	0	4,378	5,247	4,982	0
	<b>Current Retirees</b>	2	1	0	0	12	6	8	0
2004	<b>Average Benefit</b>	\$ 588	410	1,491	0	3,294	4,031	4,468	4,972
	Average FAP	\$2,295	992	3,000	0	4,372	4,849	5,171	5,078
	<b>Current Retirees</b>	1	1	1	0	8	8	6	1
2005	<b>Average Benefit</b>	\$ 0	627	1,282	2,542	3,409	3,646	5,028	5,357
	Average FAP	\$ 0	2,386	2,772	3,870	4,807	4,787	5,362	5,158
	<b>Current Retirees</b>	0	2	1	2	5	6	4	1
2006	<b>Average Benefit</b>	\$ 398	0	1,304	0	3,222	3,925	4,460	0
	Average FAP	\$1,628	0	3,007	0	4,884	5,214	5,004	0
	<b>Current Retirees</b>	1	0	2	0	6	10	1	0
2007	<b>Average Benefit</b>	\$ 530	672	888	0	3,279	4,295	4,808	0
	Average FAP	\$2,292	2,260	2,475	0	5,287	5,684	5,514	0
	<b>Current Retirees</b>	1	3	1	0	5	12	5	0
2008	<b>Average Benefit</b>	\$ 431	0	1,651	0	3,822	3,884	4,385	0
	Average FAP	\$1,898	0	3,969	0	6,098	5,253	5,575	0
	<b>Current Retirees</b>	1	0	1	0	5	10	3	0

FAP = Final Average Pay

# Schedule of Average Monthly Benefit Payments (continued)

## 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+
1999	<b>Average Benefit</b>	\$ 0	378	0	1,200	1,616	2,197	2,682	0
	Average FAP	\$ 0	1,422	0	2,290	2,443	2,893	3,130	0
	<b>Current Retirees</b>	0	3	0	3	2	10	6	0
2000	<b>Average Benefit</b>	\$ 312	642	755	1,167	1,878	2,352	2,816	2,817
	Average FAP	\$1,676	2,784	1,968	2,535	2,807	3,188	3,785	2,785
	<b>Current Retirees</b>	2	1	2	4	6	9	6	1
2001	<b>Average Benefit</b>	\$ 288	618	851	1,093	1,995	2,510	2,676	2,840
	Average FAP	\$1,844	1,083	1,936	2,057	2,911	3,158	3,664	3,176
	<b>Current Retirees</b>	5	1	1	3	13	23	8	2
2002	<b>Average Benefit</b>	\$ 190	327	982	991	2,066	2,136	2,071	0
	Average FAP	\$1,767	1,907	2,477	2,129	2,827	3,215	3,209	0
	<b>Current Retirees</b>	2	5	1	5	7	5	4	0
2003	<b>Average Benefit</b>	\$ 418	433	671	1,271	2,096	2,057	2,043	2,147
	Average FAP	\$2,221	1,405	2,425	2,490	2,720	2,855	3,611	3,001
	<b>Current Retirees</b>	2	3	4	3	10	15	3	3
2004	<b>Average Benefit</b>	\$ 248	453	564	1,374	1,810	2,420	2,503	3,406
	Average FAP	\$1,985	2,119	2,025	2,353	2,768	2,971	3,440	5,259
	<b>Current Retirees</b>	2	5	2	4	10	8	7	1
2005	<b>Average Benefit</b>	\$ 240	390	671	957	2,626	3,536	1,715	3,275
	Average FAP	\$1,298	1,841	2,240	1,780	3,285	3,925	2,522	4,422
	<b>Current Retirees</b>	2	2	3	5	7	8	1	1
2006	<b>Average Benefit</b>	\$ 165	434	584	1,119	2,475	2,794	2,998	0
	Average FAP	\$2,080	2,066	2,003	2,537	3,343	3,439	3,189	0
	<b>Current Retirees</b>	4	5	2	11	7	12	3	0
2007	<b>Average Benefit</b>	\$ 281	446	497	1,355	2,450	2,557	2,204	0
	Average FAP	\$1,853	1,924	2,082	2,491	3,450	3,275	2,742	0
	<b>Current Retirees</b>	5	5	5	6	8	13	3	0
2008	<b>Average Benefit</b>	\$ 234	497	765	1,205	1,788	2,913	3,657	0
	Average FAP	\$2,186	2,609	2,551	2,658	2,753	3,756	4,151	0
	<b>Current Retirees</b>	6	7	7	5	8	12	1	0

FAP = Final Average Pay

# Schedule of Average Monthly Benefit Payments (continued)

## MPERS

### By Years of Service

Retired In									
Fiscal Year		0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
1999	Average Benefit	\$114	0	0	0	0	0	0	0
	Average FAP	\$915	0	0	0	0	0	0	0
	Current Retirees	1	0	0	0	0	0	0	0
2003	Average Benefit	\$ 0	0	0	0	2,692	0	0	0
	Average FAP	\$ 0	0	0	0	3,232	0	0	0
	Current Retirees	0	0	0	0	1	0	0	0
2006	Average Benefit	\$ 0	0	0	0	0	3,217	0	0
	Average FAP	\$ 0	0	0	0	0	4,178	0	0
	Current Retirees	0	0	0	0	0	1	0	0
2007	Average Benefit	\$ 0	0	947	0	0	0	0	0
	Average FAP	\$ 0	0	3,081	0	0	0	0	0
	Current Retirees	0	0	1	0	0	0	0	0

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

FAP = Final Average Pay

## Active Member Data

### Schedule of Participating Employers

	MoDOT		Patrol		MPERS		Total	
	Employees	%	Employees	%	Employees	%	Employees	%
1999	6,952	75.95	2,198	24.02	3	0.03	9,153	100
2000	7,008	76.33	2,170	23.63	4	0.04	9,182	100
2001	6,969	76.53	2,133	23.43	4	0.04	9,106	100
2002	6,590	75.70	2,106	24.19	10	0.11	8,703	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

Data for this chart is as of June 30, 2008.

# Active Member Data

For the Year Ended June 30, 2008

## 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	95	74	11	9	1
31-35	481	325	42	114	0
36-40	902	590	71	237	4
41-45	1,049	747	125	177	0
46-50	1,243	971	145	126	1
51-55	922	695	131	94	2
56-60	460	350	89	21	0
61-65	110	89	20	0	1
66 +	21	19	2	0	0
<b>Total</b>	<b>5,283</b>	<b>3,860</b>	<b>636</b>	<b>778</b>	<b>9</b>
<b>Average Age</b>		<b>46</b>	<b>48</b>	<b>42</b>	<b>44</b>

### Year 2000 Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	21	18	3	0	0
21-25	415	290	64	61	0
26-30	711	486	102	122	1
31-35	543	402	60	80	1
36-40	429	337	72	19	1
41-45	391	338	46	6	1
46-50	343	292	50	1	0
51-55	231	191	39	1	0
56-60	141	112	29	0	0
61-65	66	47	19	0	0
66 +	7	3	4	0	0
<b>Total</b>	<b>3,298</b>	<b>2,516</b>	<b>488</b>	<b>290</b>	<b>4</b>
<b>Average Age</b>		<b>38</b>	<b>38</b>	<b>30</b>	<b>36</b>

# Active Member Data

For the Year Ended June 30, 2008

## By Years of Service

### Closed Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	5	4	0	1	0
01-05	21	21	0	0	0
06-10	955	749	112	92	2
11-15	1,552	1,053	184	313	2
16-20	1,040	777	120	143	0
21-25	994	764	113	116	1
26-30	455	324	73	55	3
31-35	218	137	26	55	0
36-40	32	22	7	3	0
41-45	9	7	1	0	1
46 +	2	2	0	0	0
<b>Total</b>	<b>5,283</b>	<b>3,860</b>	<b>636</b>	<b>778</b>	<b>9</b>
<b>Average Service</b>		<b>17</b>	<b>18</b>	<b>17</b>	<b>22</b>

### Year 2000 Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	653	529	86	36	2
01-05	1,873	1,397	286	188	2
06-10	764	583	115	66	0
11-15	8	7	1	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
<b>Total</b>	<b>3,298</b>	<b>2,516</b>	<b>488</b>	<b>290</b>	<b>4</b>
<b>Average Service</b>		<b>3</b>	<b>3</b>	<b>4</b>	<b>2</b>

# Terminated Vested Member Data

For the Year Ended June 30, 2008

## 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	23	18	4	1	0
31-35	135	103	20	11	1
36-40	303	208	29	66	0
41-45	383	290	50	43	0
46-50	370	306	51	13	0
51-55	259	211	33	15	0
56-60	100	85	14	1	0
61-65	10	7	3	0	0
66 +	0	0	0	0	0
<b>Total</b>	<b>1,583</b>	<b>1,228</b>	<b>204</b>	<b>150</b>	<b>1</b>
<b>Average Age</b>		<b>45</b>	<b>45</b>	<b>41</b>	<b>31</b>

### Year 2000 Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21-25	2	2	0	0	0
26-30	22	20	2	0	0
31-35	26	23	3	0	0
36-40	21	17	3	1	0
41-45	12	10	2	0	0
46-50	13	12	1	0	0
51-55	8	7	1	0	0
56-60	1	0	1	0	0
61-65	1	1	0	0	0
66 +	0	0	0	0	0
<b>Total</b>	<b>106</b>	<b>92</b>	<b>13</b>	<b>1</b>	<b>0</b>
<b>Average Age</b>		<b>37</b>	<b>39</b>	<b>36</b>	<b>0</b>

# Terminated Vested Member Data

For the Year Ended June 30, 2008

## By Years of Service

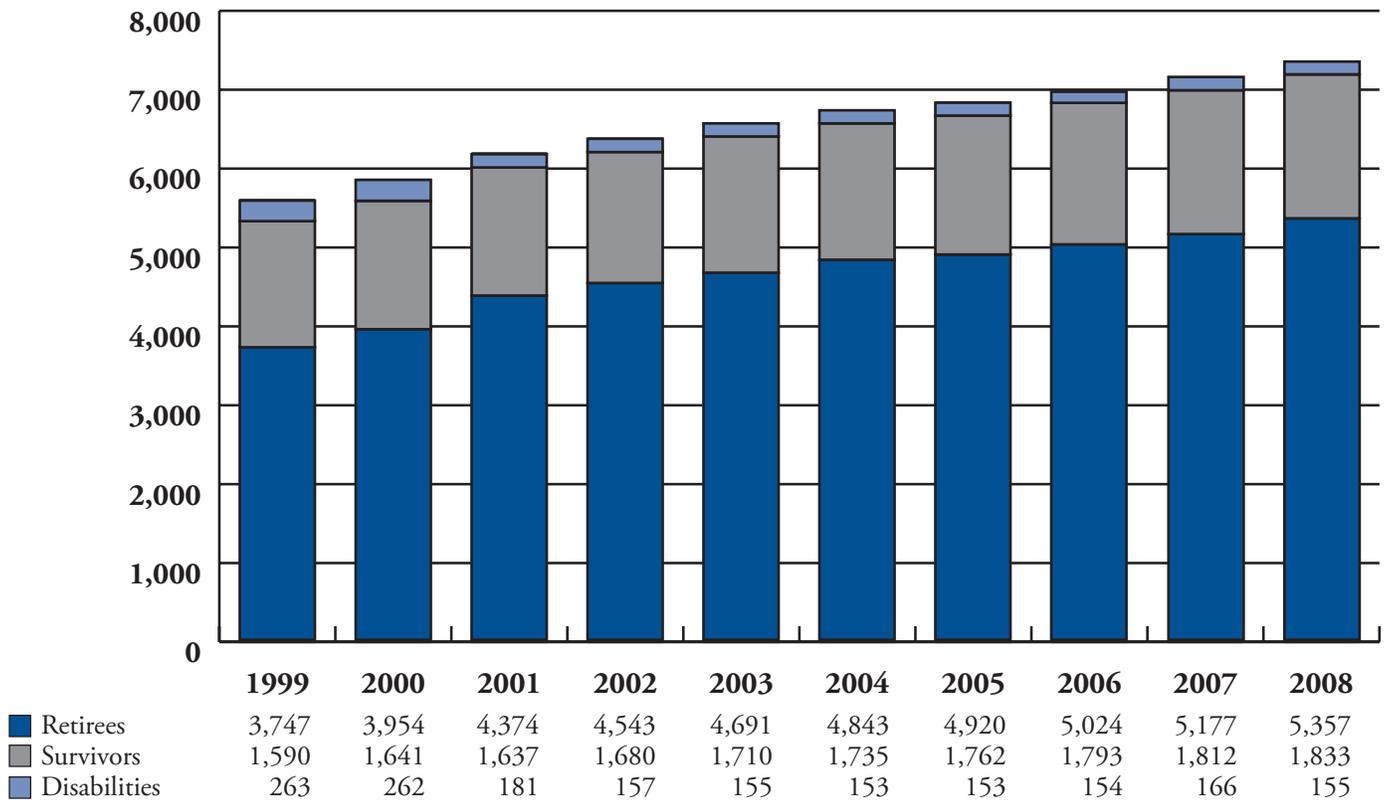
### Closed Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
06-10	200	165	27	7	1
11-15	509	353	66	90	0
16-20	454	381	50	23	0
21-25	253	206	33	14	0
26-30	93	69	11	13	0
31-35	52	35	14	3	0
36-40	22	19	3	0	0
41-45	0	0	0	0	0
46 +	0	0	0	0	0
<b>Total</b>	<b>1,583</b>	<b>1,228</b>	<b>204</b>	<b>150</b>	<b>1</b>
<b>Average Service</b>		<b>18</b>	<b>18</b>	<b>16</b>	<b>8</b>

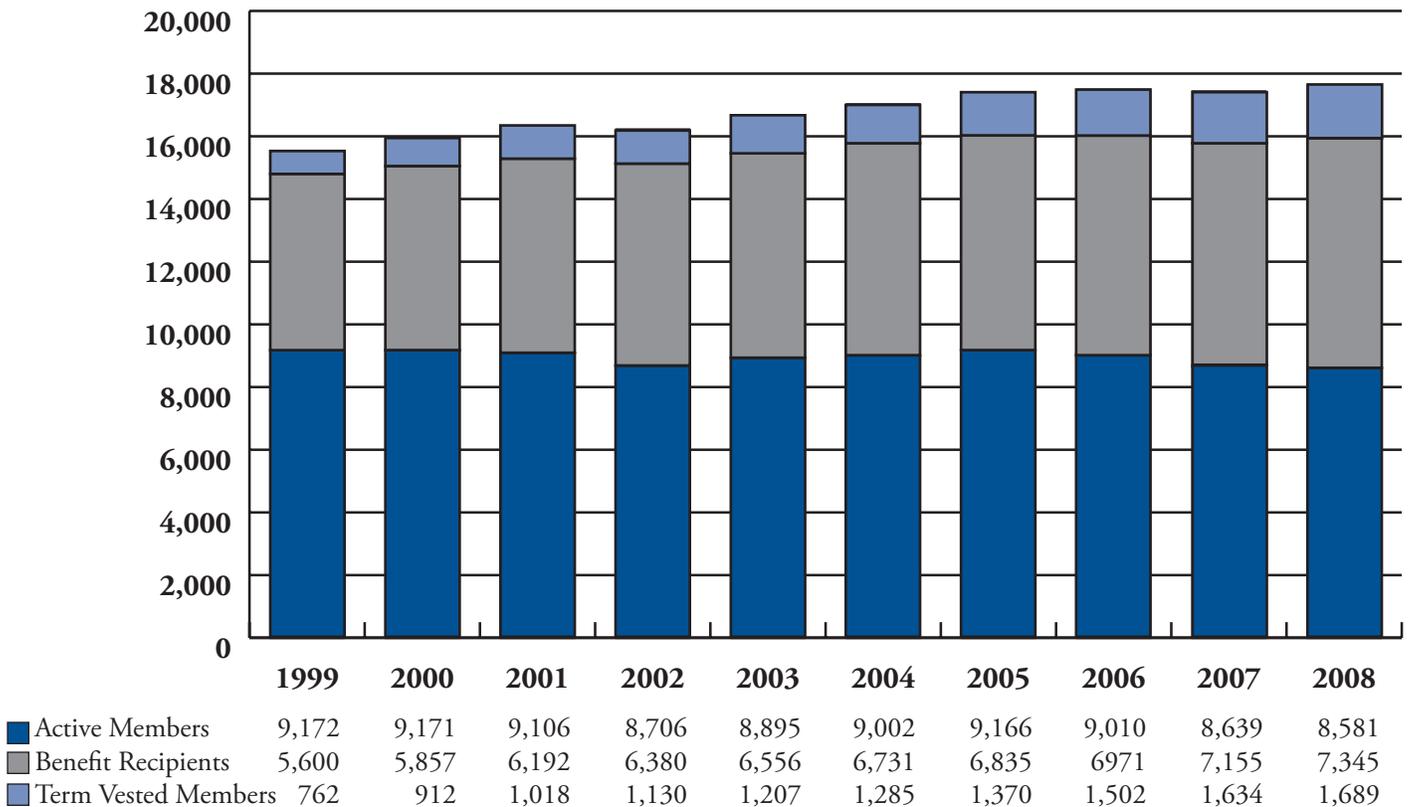
### Year 2000 Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
01-05	7	7	0	0	0
06-10	99	85	13	1	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
<b>Total</b>	<b>106</b>	<b>92</b>	<b>13</b>	<b>1</b>	<b>0</b>
<b>Average Service</b>		<b>7</b>	<b>7</b>	<b>7</b>	<b>0</b>

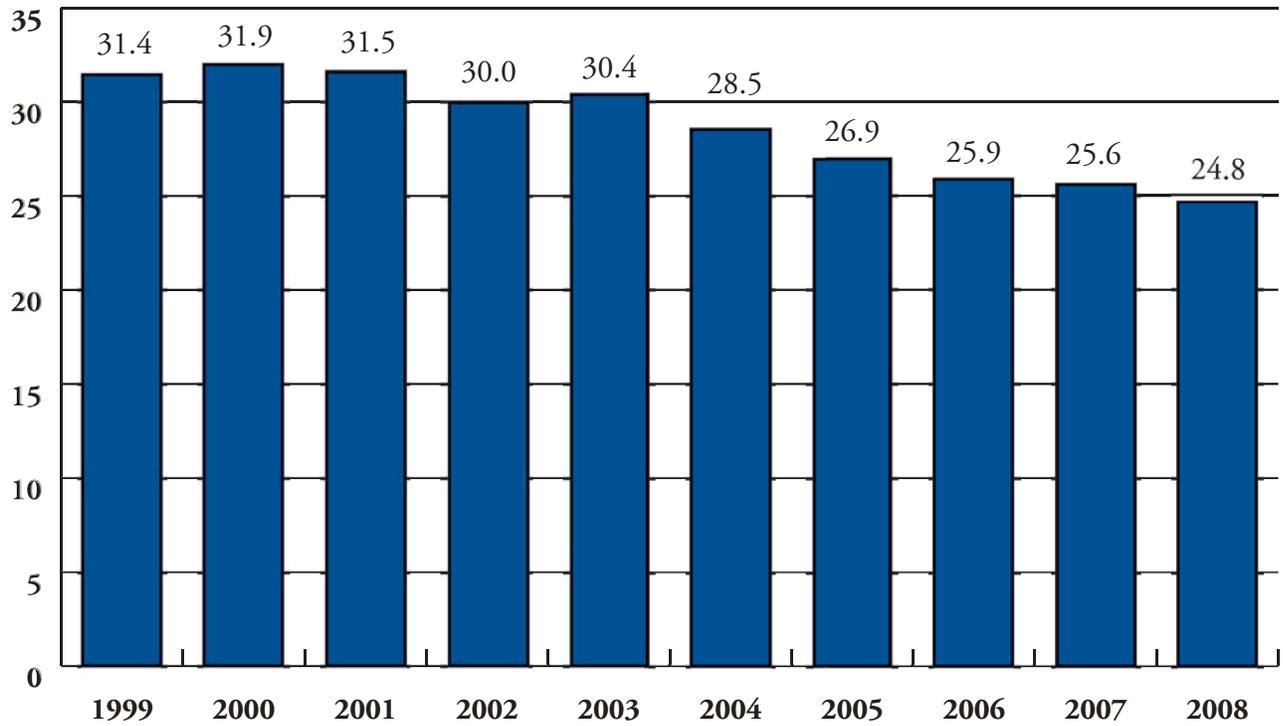
## Benefit Recipients



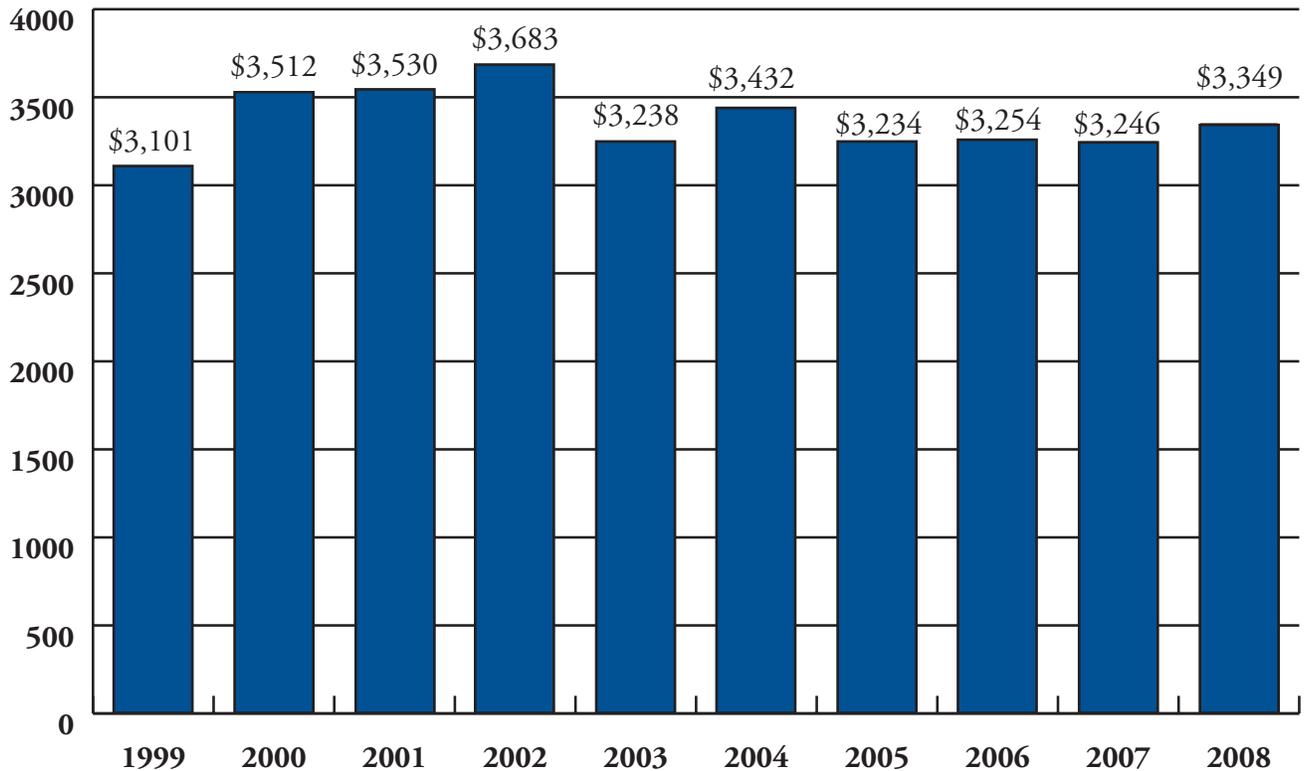
## Membership Distribution



## Average Years of Service for New Retirees



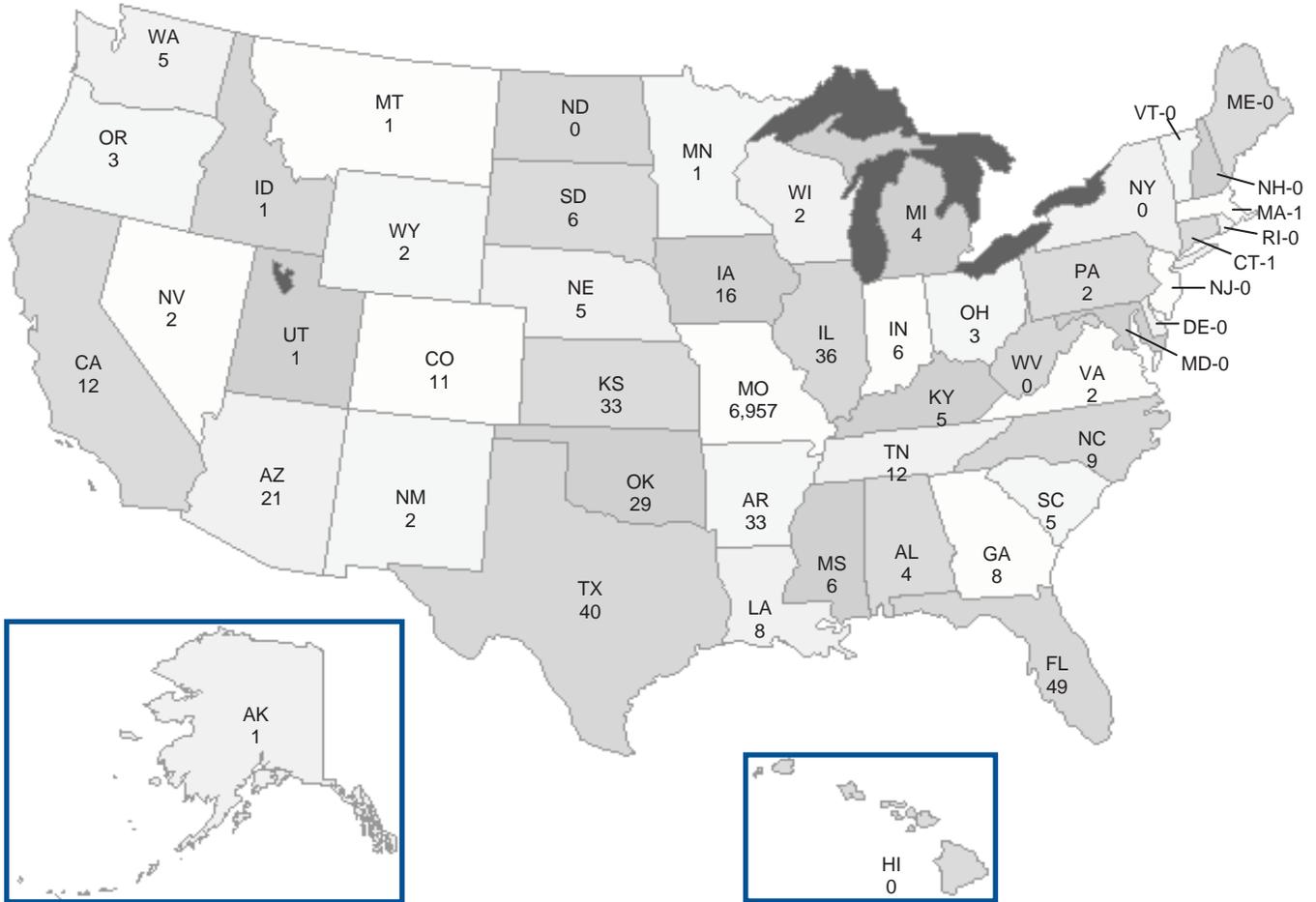
## Final Average Pay for New Retirees



# Location of MPERS Retirees

## For the Year Ended June 30, 2008

This map represents the demographic distribution of retirees by state.



1 Retiree resides in England



*MoDOT & Patrol Employees' Retirement System*  
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*Jefferson City, MO 65102-1930*  
*(800) 270-1271 • (573) 298-6080*