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# MoDOT & Patrol Employees' Retirement System



**Mailing Address** P.O. Box 1930 Jefferson City, Missouri 65102-1930

**E-Mail Address** 

Street Address 1913 William Street Jefferson City, Missouri 65109

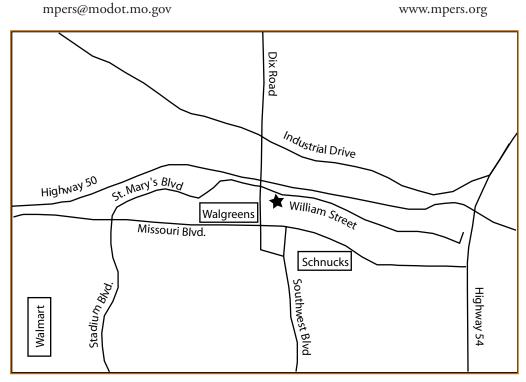
Main Line (573) 298-6080 **Phone Numbers** Toll Free (800) 270-1271

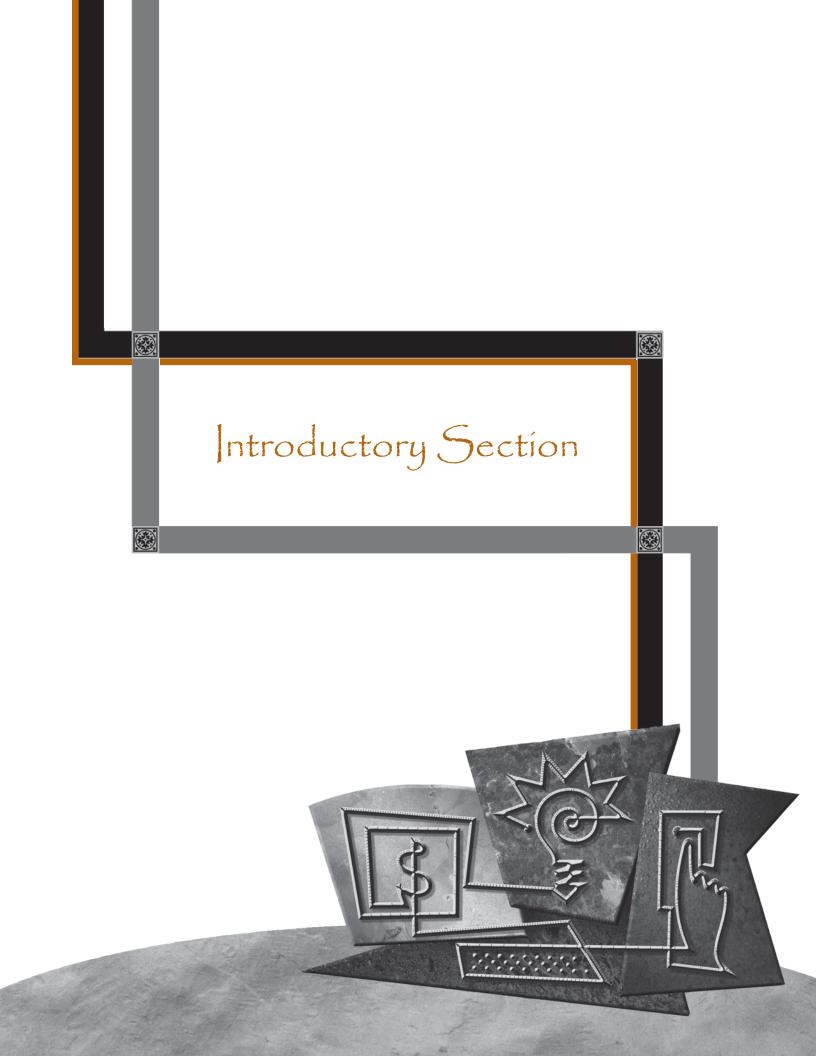
**Office Directory** (573) 298-6081

Fax Numbers Benefits **Administrative** (573) 526-5895 (573) 522-6111

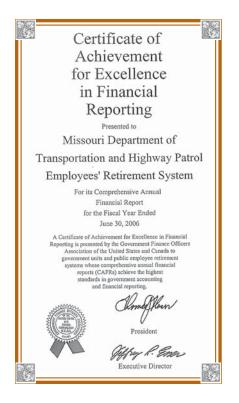
**WebSite** 

www.mpers.org





Certificate of Achievement for Excellence in Financial Reporting



## Public Pension Coordinating Council Award



### Letter of Transmittal

Norm Robinson Executive Director



Susie Dahl Assistant Executive Director

October 1, 2007

To the Board of Trustees and System Members:

We are pleased to present the MoDOT and Patrol Employees' Retirement System (MPERS) Comprehensive Annual Financial Report for the fiscal year ended June 30, 2007.

### Report Contents and Structure

This Comprehensive Annual Financial Report has been prepared to enhance the knowledge and understanding of the retirement system. The material has been prepared in a manner to be useful and informative to the members, to the management of the Missouri Department of Transportation (MoDOT) and the Missouri State Highway Patrol (Highway Patrol), and to the elected officials of the State of Missouri.

MPERS management is responsible for the accuracy and completeness of the information in this report. 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. This report is also designed to comply with the reporting requirements of Sections 104.480, 104.1006 and 105.661 of the Revised Statutes of Missouri (RSMo.) as amended.

### **Background Information**

MPERS was established by Senate Bill 66 in 1955. Under that 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 only regular retirement and disability benefits and required the employees to share in the cost of the plan.

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.

A ten-member Board of Trustees is responsible for the oversight of MPERS. Although MPERS is an instrumentality of the state, as a separate legal entity MPERS is not subject to the state's legislative appropriations process, although the system's administrative spending is governed by a Board-approved "internal" budget. The system's financial information is included in the state's Comprehensive Annual Financial Report as a component unit.

Office Location: 1913 William St., Jefferson City, MO 65109 • Mailing Address: Post Office Box 1930, Jefferson City, MO 65102-1930 Telephone Number: (573) 751-4640 • Toll Free: 1-800-270-1271 • Fax: (573) 526-5895 • E-Mail: mpers@modot.mo.gov MPERS is financed by employer 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 budget constraints, the employers continue to provide the required contributions.

### Fiscal Year 2007 Highlights

During Fiscal Year 2007, MPERS began working on a project to replace the aging technology used to process thousands of contribution and benefit transactions every year. We are currently in the beginning months of a 23-month project to implement a total pension management information solution. This project has three components. The first component is the implementation of a new accounting system that went live in early October 2007. The second component, which is already underway, is the implementation of an electronic document management (imaging) system. Back file conversion is scheduled to begin in January of 2008. The final component of this project is the replacement of our current member database and payroll system. The software solution that is being implemented is the latest version of Pension Gold Public Edition. The result of this multimillion-dollar, multiyear project will be a system that is more efficient, reliable and flexible, with enhanced online services for members and employers.

In the last year MPERS has significantly increased interest in a new member education program called Benefit Basics. This program is being offered on an ad hoc basis as requested by the district and troop offices. The Benefit Basics program is designed for younger members to increase the awareness and understanding of our defined benefit plan and its value to our members.

In July, we went live with the first MPERS website. In the past, we disseminated our benefit information through our employers' (MoDOT and the Highway Patrol) websites. In addition to being a place where our members and employers can access our publications and forms, the site provides basic information about the system and the benefits we provide. One of the new site features that has reduced mailing costs and added efficiency for the system is the online retirement seminar enrollment. The new MPERS website can be found at <u>www.mpers.org</u>.

### **Financial Information**

This report has been prepared in accordance with generally accepted accounting principles for governmental accounting and reporting. The independent firm of Williams Keepers has issued an unqualified opinion (meaning no audit findings) on MPERS financial statements. Internal controls have been established by management to provide reasonable assurance that the financial statements are free of any material misstatements.

As reported in the Financial Section, the system's net assets improved by \$227.3 million during the fiscal year. The Management's Discussion and Analysis, beginning on page 19 assesses the financial position of the system, and provides an overview of the year's financial activities.

### **Actuarial Funding Status**

The funding objective of MPERS is to meet future benefit obligations of retirees and beneficiaries through contributions and investment earnings. Our independent actuarial firm determines 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, 2007, our actuary concluded that the System is operating on an actuarially sound basis.

The June 30, 2007 valuation determined the funding ratio to be 58.2%, recognizing an Unfunded Actuarial Accrued Liability (UAAL) of \$1.211 billion.

### **Investment Activities**

The state statutes allow 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.

Led by the performance of international equities and real estate, MPERS' fiscal year 2007 return of 18.1 percent (net of fees) ranks in the top twelve percentile of all funds in the ICC public fund universe (MPERS' peer universe). More importantly, MPERS' three and five-year returns now rank in the top 3 and 10 percentile of our peer universe, respectively, which is a testimony that the restructuring of years past is beginning to pay benefits. This year's investment section begins on page 42, and contains additional performance information along with discussion from our chief investment officer regarding initiatives currently underway that we believe will enhance future returns.

### **Certificate of Achievement**

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 comprehensive annual financial report for the fiscal year ended June 30, 2006. This was the second 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 comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

### Public Pension Standards Award

MPERS also received the Public Pension Coordinating Council's Public Pension Standards 2006 Award. It is the third consecutive year during which MPERS applied for and received the Council's award in recognition of meeting professional plan design and administration standards. 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.

### Acknowledgements

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 funds of the System.

Copies of this report are provided to the Governor, the State Auditor, and the Joint Committee on Public Employee Retirement. It is also being distributed to all MoDOT divisions and district offices and 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,

norm Robinson

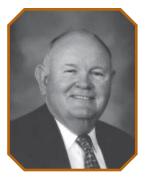
Norm Robinson Executive Director

Durane 5 Milie

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, the Board is comprised of ten 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 Sfreddo Retiree Representative Elected by Retired Members of MPERS *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.



Bottom Row: Middle Row: Top Row: Julie Berhorst, Lois Wankum & Mariel Hale Larry Krummen, Susie Dahl, Norm Robinson & Dan Pritchard Bev Wilson, Angel Backes, Mary Jordan, Jennifer Schmitz & Jennifer Even

## 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 Investment 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, monitoring and evaluation of external investment advisors; c) measuring and reporting on investment performance; d) conducting market research on political, financial, and economic developments that may affect the system; and e) 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

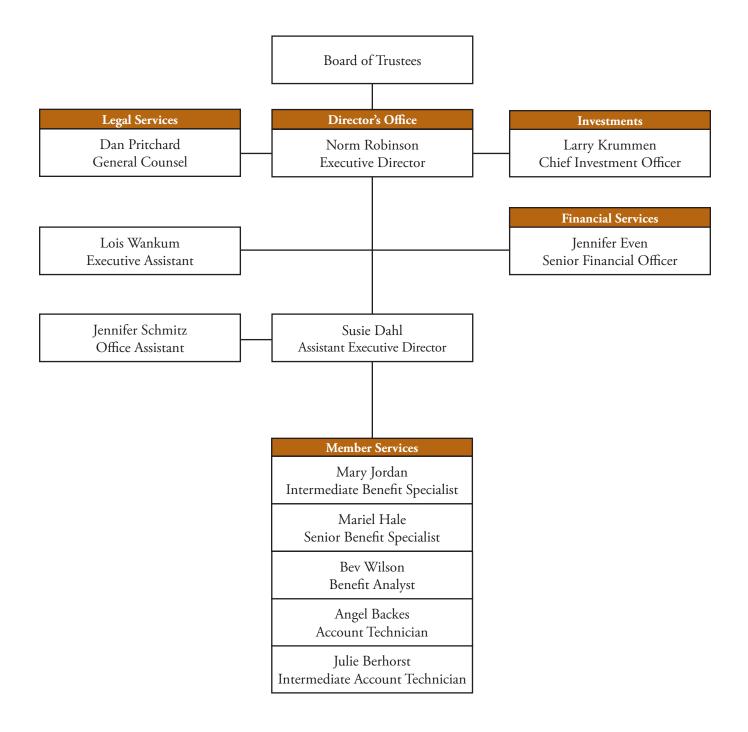
The Member Services section consists of two units devoted to serving member needs.

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 maintenance of member data on the retirement master and verifying retirement calculations; balancing payroll deductions; verifying SAM II data against exception reports; and 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 twelve 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 49 and 50 in the Investment Section for the Schedule of Investment Expenses and Brokerage Commissions for the investment professionals.

### Actuary

Gabriel, Roeder, Smith & Company Southfield, Michigan

#### Auditor

Williams-Keepers Jefferson City, Missouri

**Business Consultant** 

MAXIMUS Waltham, Massachusetts

### Legislative Consultant

Jim Moody Jefferson City, Missouri

### Master Trustee/Custodian

The Northern Trust Company Chicago, Illinois

#### **Risk Management/Insurance Consultant**

The Standard Insurance Company Portland, Oregon

> Charlesworth Benefits Overland Park, Kansas

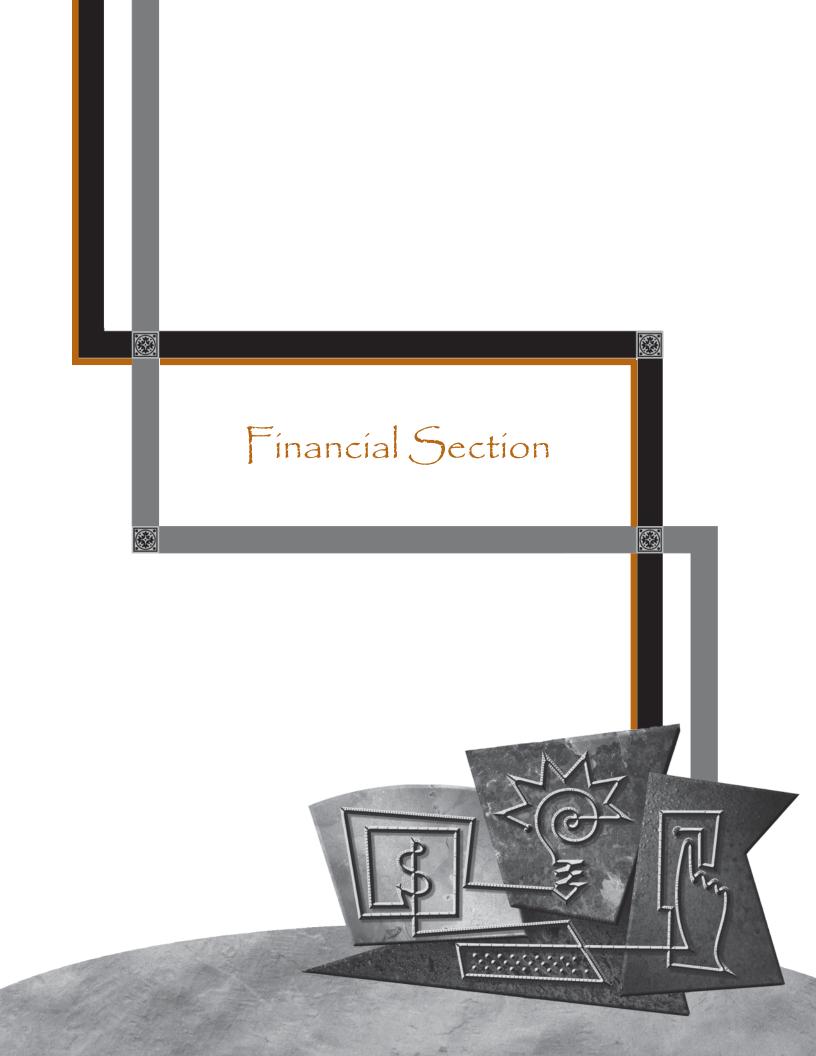
#### **Investment Consultant**

Summit Strategies Group St. Louis, Missouri

# Professional Services (continued)

### **Investment Managers**

Aberdeen Asset Management	Philadelphia, Pennsylvania
Acadian Asset Management	Boston, Massachusetts
AEW Partners	Boston, Massachusetts
Albourne America	San Francisco, California
Algert Coldiron Investments (ACI)	San Francisco, California
Apollo Real Estate	New York, New York
AQR Capital Management	Greenwich, Connecticut
Assiduous Strategic Investment (ASI)	Charlotte, North Carolina
Audax Group	Boston, Massachusetts
AXA Rosenberg	Orinda, California
Barclays Global Investors	San Francisco, California
BlackRock, Inc.	New York, New York
Bridgewater Associates	Westport, Connecticut
CQS Management	London England
CarVal Investors (CVI)	Minnetonka, Minnesota
EIF Management	Needham, Massachusetts
Enhanced Investment Technologies (INTECH)	Palm Beach Gardens, Florida
GMO	
Grove Street Advisors	Wellesley, Massachusetts
ING Clarion	New York, New York
Julius Baer Investment Management	New York, New York
Och-Ziff Real Estate	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
The Northern Trust Company	Chicago, Illinois
Urdang	Plymouth Meeting, Pennsylvania
Vicis Capital	New York, New York
Western Asset Management Company	Pasadena, California



## Independent Auditors' Report



CERTIFIED PUBLIC ACCOUNTANTS & CONSULTANTS

2005 West Broadway, Suite 100, Columbia, MO 65203 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

The Board of Trustees of the 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, 2007 and 2006, 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, 2007 and 2006, 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 19 through 21 and the schedules of funding progress and employer contributions on pages 36 and 37 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, 2003, and 2002 and the management's discussion and analysis for the year ended June 30, 2005. 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, 2007 and 2006. However, we did not audit the information and express no opinion on it.

Our audit was made for the purpose of forming an opinion on the financial statements taken as a whole. The supplementary information included on pages 38 through 40 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 16, 2007

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

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 (the System, or MPERS) provides this discussion and analysis of the System's financial performance during fiscal year 2007 (FY07) and fiscal year 2006 (FY06). While this discussion is intended to summarize the financial status of the System, readers should consider this information in conjunction with the information that is furnished in the more detailed financial statements.

### **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 the System, 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 <u>Statement of Plan Net Assets</u> includes all the System's assets and liabilities, with the difference between the two reported as net assets.
- The <u>Statement of Changes in Plan Net Assets</u> 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 to a full understanding of the data provided in the financial statements.

**<u>Required Supplementary Information</u>** follows the notes and further supports the information in the financial statements.

### FINANCIAL ANALYSIS

Following is summarized data from the financial statements for the years ended June 30, 2007, 2006, and 2005. The section entitled "Assessment of Overall Financial Position and Results of Operations" provides explanation and analyses of the major reasons for changes in the condensed financial statements.

### **CONDENSED FINANCIAL STATEMENTS**

The System's combined net assets were \$1.825 billion at the end of FY07, an increase of \$227 million over the beginning balance of \$1.598 billion.

The System's investments represent the main component (92%) of total assets. The System's investments include holdings of stock, government sponsored enterprises, bonds, mortgages, real estate, timber, securities lending collateral, limited partnerships, and other fixed income investments.

## Management's Discussion and Analysis

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.

	6/30/2007	6/30/2006	6/30/2005
Cash and Receivables	\$ 17,500	\$ 18,259	\$ 32,942
Investments	1,820,831	1,595,468	1,416,616
Invested Securities Lending Collateral	150,040	118,819	158,193
Capital Assets	627	653	691
Other Assets	5	2	8
Total assets	\$1,989,003	\$1,733,201	\$1,608,450
Accounts Payable	13,753	16,452	9,188
Securities Lending Collateral	150,040	118,819	158,193
Long-Term Debt	6	10	14
Total liabilities	\$ 163,799	\$ 135,281	\$ 167,395
Total net assets	\$1,825,204	\$1,597,920	<u>\$1,441,055</u>

### Summarized Statements of Plan Net Assets (in thousands of dollars)

Net investment income, a primary component of plan additions, resulted in a gain of \$283.5 million. This is a 33.62% increase over the net gain of \$212.2 million in FY06. The section below further describes and analyzes the major changes between the fiscal years.

	6/30/2007	6/30/2006	6/30/2005
Contributions	\$ 121,794	\$ 111,543	\$ 102,605
Net investment income	283,549	212,206	144,641
Other income Total additions	$     \frac{32}{\$ 405,375} $	$     \frac{41}{\$ 323,790} $	<u>31</u> <u>\$ 247,277</u>
Benefits	175,970	164,997	157,742     1,917 $ $
Administrative expenses	2,121	1,928	
<b>Total deductions</b>	\$ 178,091	\$ 166,925	
Change in net assets	\$ 227,284	\$ 156,865	\$ 87,618
Net assets, beginning of year	1,597,920	1,441,055	1,353,437
<b>Net assets, end of year</b>	<b>\$1,825,204</b>	<b>\$1,597,920</b>	<b>\$1,441,055</b>

### Summarized Statements of Changes in Plan Net Assets (in thousands of dollars)

## Management's Discussion and Analysis

### ASSESSMENT OF OVERALL FINANCIAL POSITION AND RESULTS OF OPERATIONS

Overall, the financial position of the System improved by \$227.3 million, reported as the "change in net assets."

The main component of the increase in contributions to the System is in employer contributions. The contribution rate, based on an actuarial recommendation approved by the Board of Trustees, increased effective July 1, 2006. The rate applied to non-uniformed payroll (MoDOT, Civilian Patrol, and MPERS) increased from 30.49% to 31.10%. The rate applied to Uniformed Patrol payroll increased from 44.27% to 44.28%. This increase was intended to improve the funded status of the System.

Net investment income totaled \$283.5 million in FY07, representing a 18.1% return for the period. This return compares very favorably to the System's assumed actuarial rate of return of 8.25%, with the total investment income showing an increase of 33.62% relative to FY06. The return of the System's policy benchmark (the return that would have been earned by investing passively across the broad investment markets) was 17.24% in FY07, up 4.81% when compared to a 12.43% return in FY06. 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%.

### CURRENTLY KNOWN FACTS AND RECENT EVENTS

The Board of Trustees approved a decrease in the required state contribution, effective July 1, 2007. The rate applied to non-uniformed payroll (MoDOT, Civilian Patrol, and MPERS) will decrease from 31.10% to 31.01%. The rate applied to Uniformed Patrol payroll will decrease from 44.28% to 42.61%. This decrease is a reflection of the favorable investment returns achieved over the last couple of years.

### 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 the MoDOT and Patrol Employees' Retirement System, P.O. Box 1930, Jefferson City, MO 65102-1930.

# Statements of Plan Net Assets

	2007	
ASSETS:		
Cash	\$ 232,164	\$ 43,242
Receivables		
Contributions	4,951,436	4,705,398
Accrued interest and income	4,572,315	3,264,658
Investment sales	7,011,360	9,695,370
Other	732,843	549,847
Total Receivables	17,267,954	18,215,273
Investments, at fair value (Note 2)		
Stocks and Rights/Warrants	\$ 837,782,481	\$ 755,607,984
Government obligations	17,886,454	19,995,631
Corporate bonds	18,506,718	20,290,346
Real estate	232,630,969	231,154,178
Mortgages and Asset-Backed Securities	61,488,806	51,035,766
Absolute Return	369,634,853	249,143,634
Tactical Fixed Income	80,384,553	75,289,564
Short term investments	80,350,769	140,652,835
Venture Capital & Partnerships	122,165,133	52,298,214
Total Investments	1,820,830,736	1,595,468,152
Invested securities lending collateral	\$ 150,040,049	\$ 118,819,364
Prepaid expenses	4,820	1,914
Capital Assets		
Land	84,000	84,000
Building	581,619	581,619
Equipment	133,066	122,751
Accumulated depreciation	(171,307)	(135,560)
Net Capital Assets	627,378	652,810
TOTAL ASSETS	\$1,989,003,101	\$1,733,200,755
LIABILITIES:		
Capital lease	\$ 5,889	\$ 10,206
Accounts payable	2,767,175	2,112,487
Accrued BackDROP payments payable	-	5,970
Security lending collateral	150,040,049	118,819,364
Investment purchases	10,985,699	14,332,658
TOTAL LIABILITIES	\$ 163,798,812	\$ 135,280,685
NET ASSETS HELD IN TRUST		
FOR PENSION BENEFITS	\$1,825,204,289	\$1,597,920,070

(A schedule of funding progress is presented on page 36.) See accompanying Notes to Financial Statements.

# Statements of Changes in Plan Net Assets

	2007	2006
ADDITIONS:		
Contributions-employer	\$ 121,264,532	\$ 111,271,679
Contributions-other	529,926	271,038
Total Contributions	121,794,458	111,542,717
Investment Income - from investing activities		
Net appreciation and income	\$ 300,593,854	\$ 224,165,361
Less: investment expenses	(17,512,525)	(12,453,181)
Net Investment Income	283,081,329	211,712,180
Investment Income - from securities lending activities		
Security lending gross income	\$ 7,136,443	\$ 5,592,832
Less: investment expenses	(6,668,348)	(5,098,774)
Net Investment Income	468,095	494,058
Other Income	\$ 31,580	\$ 41,542
TOTAL ADDITIONS	\$ 405,375,462	\$ 323,790,497
DEDUCTIONS:		
Monthly benefits	\$ 175,970,479	\$ 164,997,406
Administrative expenses	2,120,764	1,927,594
TOTAL DEDUCTIONS	\$ 178,091,243	\$ 166,925,000
NET INCREASE IN PLAN NET ASSETS	\$ 227,284,219	\$ 156,865,497
NET ASSETS HELD IN TRUST		
FOR PENSION BENEFITS		
Beginning of Year	1,597,920,070	1,441,054,573
End of Year	\$1,825,204,289	\$1,597,920,070

See accompanying Notes to Financial Statements.

### **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 and is included in the State's financial reports as a component unit shown as a pension trust fund.

#### Note 1 (a) - Basis of Accounting

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

### Note 1 (b) - Method Used to Value Investments

Investments are reported at fair value on a trade date basis. Bonds and stocks traded on a national or international exchange are valued at the reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. The fair value of real estate investments are based on net asset value estimates provided by the general partners' administrators or portfolio managers, which are compared to independent appraisals. The value of private equity and other alternative investments that do not have an established market are determined based upon the most current net asset values and activities through year end. When not readily available, alternative investments are valued based on good faith determination by the General Partner.

### Note 1 (c) - Capital Assets

MPERS capitalizes assets with an expected useful life greater than one year with a cost of 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 and Equipment	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 and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

### NOTE 2 – PLAN DESCRIPTION

MPERS, established under Section 104.020, is a body corporate and an instrumentality of the state as a multiple-employer, public employee retirement system with two primary benefit structures known as the Closed Plan and the Year 2000 Plan. These plans provide retirement, survivor, and disability benefits for employees of MoDOT, MSHP, and MPERS staff. These plans are administered in accordance with the requirements of a cost sharing, multiple-employer, public employee retirement plan and in accordance with the Revised Statutes of Missouri. In MPERS are vested the powers and duties specified in sections 104.010 to 104.312 and 104.601 to 104.805 and 104.1003 to 104.1093, RSMo., and such other powers as may be necessary or proper to enable it, its officers, employees, and agents to carry out fully and effectively all the purposes outlined pursuant to these sections. Responsibility for the operation and administration of the system is vested in the Board of Trustees. Detailed information regarding contributions can be found in Note 5.

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

Membership in the Closed and Year 2000 Plans as of June 30, consists of the following:

	FY07		<b>FY0</b> 7	FY06
	Closed	Year 2000	Total	Total
Retirees, beneficiaries, and disabilities currently receiving benefits	5,195	1,960	7,155	6,971
Terminated employees entitled to but not yet receiving benefits	1,573	61	1,634	1,502
Active employees Vested	5,618	731	6,349	6,672
Non-Vested Total membership	0 <u>12,386</u>	2,290 5,042	$\frac{2,290}{17,428}$	2,338 <u>17,483</u>

### **Closed Plan Description**

Employees covered by the 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 your age and service equaling 80 or more (active or terminated & vested).

For uniformed patrol members the following provisions apply:

- 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 your 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 and then multiplying the product by 1.333333.

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

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

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

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

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

Members may name a new spouse if:

- They were single at retirement and since married;
- They elected a spouse option at the time of retirement and 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 and name a new spouse.

All members who retire from active employment or longterm 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 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 your age and service equaling 80 or more (active or terminated & vested).

For uniformed patrol members the following provisions apply:

- "Rule of 80" at least age 48 with sum of your 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, 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 would have been received by the member had they 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 are based on the member's age at retirement, as well as the age difference between the age of 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 if:

- They were single at retirement and since married;
- They elected a spouse option at the time of retirement and 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 and name a new spouse.

All members who retire from active employment or longterm 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.

Additionally, administrative expenses for both plans are financed through the contribution rate.

### NOTE 3 – DEPOSITS AND INVESTMENTS

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

### Note 3 (a) - Deposit and Investment Policies

### **Concentration of Credit Risk**

Concentration of credit risk is the risk of loss attributed to the magnitude of the MPERS' investment in a single issuer. Unless otherwise permitted under an investment management agreement, MPERS policies limit each equity manager to investing a maximum of 5% of the market value of the portfolio in any single company. Similarly, fixed income managers are limited to investing 3% of the portfolio into obligations of a single corporation unless authorized in the investment management agreement. Obligations of the U.S. Government or U.S. Government agencies may be held in any amount.

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

### Cash Deposit Custodial Credit Risk

Cash deposit custodial credit risk is the risk that, in the event of the failure of a depository financial institution, MPERS will not be able to recover deposits or will not be able to recover collateral securities in the possession of an outside party. Missouri state law requires all public funds 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.

### **Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. MPERS' formal investment policy does not limit 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 as reflected in the investment policy. MPERS' investments include terms related to interest rate changes. These options are incorporated into individual manager strategies. The investments include benchmark indices, reset dates, and embedded options such as calls, puts, and mortgage prepayments. All such items are reported at fair value on the Statement of Plan Net Assets.

### **Investment Credit Risk**

Investment credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Unless otherwise permitted under an investment management agreement, it is MPERS' policy to limit fixed income managers to purchasing securities possessing a minimum credit rating of "Baa" by Moody's and "BBB" by Standard & Poor's. Issues subsequently downgraded below these ratings must be sold as soon as is prudently possible unless the Board of Trustees approves retention.

### Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. MPERS is subjected to foreign currency risk through its exposure to fixed income and equity investments that are denominated in a foreign currency. While the valuation of assets denominated in foreign currencies is clearly impacted by movements in exchange rates, they also provide diversification within the overall investment portfolio by offering protection against a depreciating U.S. dollar. To manage foreign currency risk, the Board of Trustees established a formal investment policy that includes target and permissible ranges of foreign securities within the investment portfolio.

### 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, 2007 and 2006, MPERS had carrying amount of deposits of (\$1,020,908) and (\$1,314,549), respectively, and a bank balance of \$345 and \$219, 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 2007 and 2006 were \$1,253,071 and \$1,357,791 respectively. As of June 30, 2007 and 2006, 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 five percent of plan net assets.

### Note 3 (d) - Investments

The following table	presents the summar	y of MPERS'	investments by	y type at J	[une 30, 2007 a	and 2006.
ine rono ning table	presentes the standard	<i>j</i> of 1011 <b>D</b> 100	in eourence o	, , , , , , , , , , , , , , , , , , , ,	, and 00, 200, 1	

		2007	20	)06
	Cost	Fair Value	Cost	Fair Value
Government obligations	\$ 18,349,953	\$ 17,886,454	\$ 20,504,263	\$ 19,995,631
Corporate bonds	18,910,312	18,506,718	21,212,711	20,290,346
Stock and rights/warrants	648,600,826	837,782,481	671,472,494	755,607,984
Real estate	169,268,797	232,630,969	182,696,816	231,154,178
Mortgages & asset-backed securities	62,168,141	61,488,806	52,186,516	51,035,766
Absolute return	327,053,400	369,634,853	231,509,903	249,143,634
Tactical fixed income	71,403,817	80,384,553	70,786,773	75,289,564
Venture capital & partnerships	124,379,405	122,165,133	54,019,467	52,298,214
Short-term investments	81,640,943	81,603,840	142,020,754	142,010,626
Securities lending collateral	150,040,049	150,040,049	118,819,364	118,819,364
Total Investments	\$1,671,815,643	\$1,972,123,856	\$1,565,229,061	\$1,715,645,307
Reconciliation to Statement of Plan Net Assets:				
Less: Repurchase Agreements		\$ (1,253,071)		\$ (1,357,791)
Less: Securities Lending Collateral		(150,040,049)		(118,819,364)
Investments per Statement of Plan Net Assets		\$1,820,830,736		<u>\$1,595,568,152</u>

### 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 as of June 30, 2007, which are exposed to interest rate risk.

	Fair	Investm	ent Maturities	(in years) as of	6/30/07
Investment Type	Value	Less than 1	1 - 5	6 - 10	More than 10
Asset-Backed Securities	\$ 4,498,917	\$ 0	\$ 239,733	\$ 0	\$ 4,259,184
Commercial Mortgage-					
Backed Securities	43,732,109	0	0	602,879	43,129,230
Corporate Bonds	18,506,718	0	2,148,737	2,875,526	13,482,455
Government Agencies	196,339	0	0	196,339	0
Government Bonds	12,933,775	0	7,331,196	224,737	5,377,842
Government Mortgage					
Backed Securities	13,257,781	0	121,569	942,574	12,193,638
Municipal/Provincial Bonds	4,756,339	0	0	3,047,851	1,708,488
Total	\$ 97,881,978	\$ 0	\$9,841,235	\$7,889,906	\$80,150,837
Pooled Investments	80,384,553				
Grand Total	\$178,266,531				

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

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

Investment Type	Quality Rating	06/30/07 Fair Value	06/30/06 Fair Value
Asset-Backed Securities	А	\$ 0	\$ 135,349
Asset-Backed Securities	AAA	4,498,917	6,960,948
Commercial Mortgage-Backed Securities	A-	294,150	0
Commercial Mortgage-Backed Securities	AA	505,076	495,208
Commercial Mortgage-Backed Securities	AAA	31,151,675	23,558,548
Commercial Mortgage-Backed Securities	BBB+	344,838	0
Commercial Mortgage-Backed Securities	not rated	11,436,369	6,570,489
Corporate Bonds	A	831,361	1,904,162
Corporate Bonds	A-	1,468,528	3,252,305
Corporate Bonds	A+	992,294	1,195,382
Corporate Bonds	AAA	1,801,377	1,215,170
Corporate Bonds	BB+	1,567,312	1,229,877
Corporate Bonds	BBB	4,867,033	2,467,475
Corporate Bonds	BBB-	2,073,911	2,813,368
Corporate Bonds	BBB+	2,145,074	2,718,072
Corporate Bonds	Treasury	435,760	0
Corporate Bonds	not rated	2,324,069	3,494,534
Government Agencies	Agency	196,339	0
Government Bonds	AAA	12,933,775	13,921,439
Government Mortgage-Backed Securities	Agency	13,257,781	11,782,250
Government Mortgage-Backed Securities	not rated	0	1,532,974
Municipal/Provincial Bonds	A	0	931,930
Municipal/Provincial Bonds	AAA	4,756,339	5,142,262
Pooled Investments	not rated	80,384,553	75,289,564
Total		\$178,266,531	\$166,611,306

### Note 3 (g) – Investment Foreign Currency Risk

MPERS' exposure to foreign currency risk as of June 30, 2007 and 2006 was as follows:

Foreign Currency	Cash and Equivalents	Equities	06/30/07 Total	06/30/06 Total
Australian dollar	\$ 100,680	\$ 10,756,117	\$ 10,856,797	\$ 9,649,779
British pound sterling	1,589,257	47,708,853	49,298,110	51,284,107
Canadian dollar	105,760	12,336,053	12,441,813	16,722,627
Czech koruna	(724,474)	2,435,286	1,710,812	1,430,438
Danish krone	60,647	2,097,145	2,157,792	1,199,226
Euro	(1,349,380)	168,342,258	166,992,878	137,978,091
Hong Kong dollar	115,645	4,551,730	4,667,375	11,379,624
Hungarian forint	(877,227)	5,547,632	4,670,405	0
Indonesian rupiah	0	96,666	96,666	202,866
Japanese yen	10,097,856	49,202,971	59,300,827	66,333,620
Mexican peso	1,590	1,428,654	1,430,244	641,520
New Zealand dollar	7,134	335,381	342,515	486,163
Norwegian krone	47,897	2,673,125	2,721,022	4,187,911
Philippine peso	59,004	24,805	83,809	131,754
Polish zloty	(777,068)	0	(777,068)	(816,441)
Singapore dollar	32,721	681,970	714,691	1,146,725
South African rand	0	0	0	3,676
South Korean won	43,829	2,190,164	2,233,993	2,477,022
Swedish krona	151,863	14,739,403	14,891,266	6,828,128
Swiss franc	6,395	18,662,703	18,669,098	19,222,640
Thai baht	132,341	175,551	307,892	242,155
Turkish Lira	(332,633)	4,085,068	3,752,435	4,056,504
Total Exposure Risk	\$8,491,837	\$348,071,535	\$356,563,372	\$334,788,135

### Note 3 (h) - Securities Lending

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

Securities that may be loaned include U.S. government and agency securities, corporate equity, and fixed income securities. Collateral may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned in exchange for collateral valued at 102% of the market value of the securities plus any accrued interest. Non-U.S. securities are loaned in exchange for collateral valued at 105% of the market value of the securities plus any accrued interest. On June 30, 2007 and 2006, 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 79 days and 108 days as of June 30, 2007 and June 30, 2006, respectively. Cash open collateral is invested in a short-term investment

pool, which had an interest sensitivity of 39 days and 41 days as of June 30, 2007 and June 30, 2006, respectively. Cash collateral may also be invested separately in "term loans", in which case the investments match the loan term. These loans can be terminated on demand by either lender or borrower. There were no known violations of legal or contractual provisions, or borrower or lending agent default losses. There 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 Company 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 Statements of Plan Net Assets and non-cash collateral) was as follows at June 30:

Investment Type	2007	2006
Equities	\$139,444,727	\$104,319,294
Government & government		
sponsored securities	12,135,999	13,934,935
Corporate bonds	2,658,480	6,012,091
	\$154,239,206	\$124,266,320

### NOTE 4 – RECEIVABLES

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

Туре	2007	2006
Contributions-MoDOT	\$ 3,300,519	\$ 3,224,827
Contributions-MSHP Non-Uniformed	507,683	476,568
Contributions-MSHP Uniformed	1,123,593	995,356
Contributions-Retirement System	19,641	8,647
Commission Recapture	1,148	1,952
Securities Lending	729,115	545,315
Amounts Due From Members	2,580	2,580
Investment Interest & Income	4,572,315	3,264,658
Investment Sales	7,011,360	9,695,370
	\$17,267,954	\$18,215,273

### NOTE 5 – CONTRIBUTIONS

MoDOT, MSHP, 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 \$121,264,532 and \$111,271,679 for fiscal years 2007 and 2006, 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, 2007 and 2006 are shown below. The Board established actual rates to be the same as the actuarially determined rates.

Total Contribution Rate					
2007 2006					
MoDOT, MPERS & Civilian Patrol	Uniformed Patrol	MoDOT, MPERS & Civilian Patrol	Uniformed Patrol		
31.10%	44.28%	30.49%	44.27%		

### **NOTE 6 – RELATED PARTY TRANSACTIONS**

MPERS reimbursed MODOT \$0 and \$52,304 for accounting services in FY07 and FY06, respectively.

MoDOT rents office space from MPERS. This contract is effective from June 2003 through May 2008. This amounted to other income of \$31,104 during both FY07 and FY06, respectively.

#### NOTE 7 – PERSONAL SERVICES AND RETIREMENT PLAN

MPERS employed 12 full-time employees on June 30, 2007 and 2006. Four former MPERS' employees have retired. Full-time employees are also members of the System. For these employees, MPERS accrued 31.10% of payroll during FY07, amounting to \$246,318; and 30.49% of payroll during FY06, amounting to \$209,301. This amount has been recorded as both a contribution and administrative expense. Information regarding the retirement plans can be found in Notes 2 and 5.

### NOTE 8 – OTHER POSTEMPLOYMENT BENEFITS

In addition to the retirement benefits described above, MPERS provides a portion of health care insurance, in accordance with Missouri state statutes, for its employees who retired from the System with a minimum of 5 years of state service and who participate in the MoDOT and Patrol Insurance Plan. MPERS and participant contributions are established by the Insurance Plan's Board of Trustees and are approved by the Missouri Highways and Transportation Commission. There are currently three eligible participating retirees. Costs are recognized on a pay-as-you-go basis, with a cost of \$6,786 and of \$4,055 for FY07 and FY06, respectively, representing approximately 48% of the total insurance cost.

### NOTE 9 - CAPITAL ASSETS

	06/30/06 Balance	Additions	Deletions/ Retirements	06/30/07 Balance
Land	\$ 84	\$ 0	\$ 0	\$ 84
Buildings	582	0	0	582
Office Equipment	123	10	0	133
Less: Accumulated Depreciation	136	36	0	172
Total	\$653	\$(26)	\$ 0	\$627

Changes in capital assets are summarized below (in thousands):

	06/30/05 Balance	Additions	Deletions/ Retirements	06/30/06 Balance
Land	\$ 84	\$ 0	\$ 0	\$ 84
Buildings	582	0	0	582
Office Equipment	121	2	0	123
Less: Accumulated Depreciation	96	40	0	136
Total	\$691	\$(38)	\$ 0	136 \$653

### 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 were as follows:

Туре	6/30/06 Balance	Additions	Reductions	6/30/07 Balance
Capital Lease	\$10,206	<u>\$0</u>	\$4,317	\$ 5,889
Туре	6/30/05 Balance	Additions	Reductions	6/30/06 Balance
Capital Lease	\$14,202	<u>\$0</u>	\$3,996	\$10,206

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

Year Ending June 30	Amount
2008	\$4,959
2009	1,240
Total minimum lease payments	\$6,199
Less: interest amount	(310)
Present value of minimum lease payments	\$5,889

#### NOTE 11 – OPERATING LEASES

MPERS is committed to three equipment and services related leases through September 2011. Expenditures for the years ended June 30, 2007 and 2006 amounted to \$30,267 and \$28,864 respectively. Future minimum lease payments for these leases are as follows:

Year Ending June 30	Amount
2008	\$2,434
2009	719
2010	719
2011	180
Total minimum lease payments	\$4,052

#### 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.

#### 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 approximately \$147,000 has been expensed prior to June 30, 2007.

## Required Supplementary Information

## Schedule of Funding Progress (1)

Year Ended June 30	Actuarial Asset Value	Actuarial Accrued Liability (AAL) Entry Age	Unfunded AAL (UAAL)	Funded Ratio	Actuarial Covered Payroll	UAAL as a Percentage of Covered Payroll
2002	\$1,450,507,432	\$2,358,452,163	\$ 907,944,731	61.50%	\$308,654,239 (2	) 294.16%
2003	1,363,952,522	2,418,145,741	1,054,193,219	56.20	319,345,949 <sup>(2</sup>	) 330.11
2004	1,331,588,207	2,492,918,976	1,161,330,769	53.41	316,224,468 (2	) 367.25
2005 (3)	1,417,348,982	2,627,409,025	1,210,060,043	53.94	334,030,151 <sup>(2</sup>	) 362.26
2006	1,521,142,953	2,740,437,837	1,219,294,884	55.51	341,227,890 (2	) 357.33
$2007^{(3)}$	1,685,807,004	2,897,267,409	1,211,460,405	58.19	370,598,675 <sup>(2</sup>	) 326.89

(1) Prior to 2003 this schedule was not required for the LTD Plan because it used the aggregate funding method. Therefore the assets and liabilities were excluded prior to 2003. In 2003 the LTD Plan was merged into the base plan. Assets and liabilities for existing LTD members are included beginning in 2003.

<sup>(2)</sup> Values are estimated from contribution rate and amount.

<sup>(3)</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, 2007
Actuarial Cost Method	Entry Age Normal
Amortized Method	Level percent of payroll
Remaining Amortization Period	
Amortization Approach	Closed
Asset Valuation Method	
Actuarial Assumptions:	
Investment Rate of Return	
Projected Salary Increase	
Cost-of-Living Adjustments	2.6% Compound
Includes Wage Inflation at	

## Required Supplementary Information

## Schedule of Employer Contributions (1)

#### **Uniformed Patrol**

Year Ended June 30	Estimated Covered Payroll	Actual Employer Contributions	Actual Employer Contribution %	Annual Required Contribution (ARC) %	Annual Pension Cost (APC)	Percentage of APC Contributed
2002	\$47,681,512 <sup>(2)</sup>	\$16,659,920	34.94%	$34.94\%^{(4)}$	\$16,659,920	100.00%
2003	48,172,519 <sup>(2)</sup>	16,831,478	34.94	34.94 <sup>(4)</sup>	16,831,478	100.00
2004	46,333,484 <sup>(2)</sup>	17,792,058	38.40	38.40	17,792,058	100.00
2005	50,959,490 <sup>(2)</sup>	22,187,762	43.54	43.54	22,187,762	100.00
2006	54,443,639 <sup>(2)</sup>	24,102,199	44.27	44.27	24,102,199	100.00
2007 (3)	62,788,916 <sup>(2)</sup>	27,802,932	44.28	44.28 (4)	27,802,932	100.00

(1) Prior to 2003 this schedule was not required for the LTD Plan because it used the aggregate funding method. Therefore the assets and liabilities were excluded prior to 2003. In 2003 the LTD Plan was merged into the base plan. Assets and liabilities for existing LTD members are included beginning in 2003.

<sup>(2)</sup> Values are estimated from contribution rate and amount.

<sup>(3)</sup> New assumptions adopted.

<sup>(4)</sup> The ARC is the rate adopted by the Retirement Board. This rate exceeded the actuarially calculated rate.

#### MoDOT, Civilian Patrol & MPERS (5)

Year Ended June 30	Estimated Covered Payroll	Actual Employer Contributions	Actual Employer Contribution %	Annual Required Contribution (ARC) %	Annual Pension Cost (APC)	Percentage of APC Contributed
2002	\$260,972,727 <sup>(2)</sup>	\$60,780,548	23.29%	23.29% (4)	\$60,780,548	100.00%
2003	271,173,431 (2)	63,156,292	23.29	23.29 (4)	63,156,292	100.00
2004	269,890,983 <sup>(2)</sup>	68,932,856	25.54	25.54	68,932,856	100.00
2005	283,070,661 <sup>(2)</sup>	80,052,383	28.28	28.28	80,052,383	100.00
2006	286,784,251 (2)	87,440,518	30.49	30.49	87,440,518	100.00
2007 (3)	302,223,556 <sup>(2)</sup>	93,991,526	31.10	31.10 <sup>(4)</sup>	93,991,526	100.00

(1) Prior to 2003 this schedule was not required for the LTD Plan because it used the aggregate funding method. Therefore the assets and liabilities were excluded prior to 2003. In 2003 the LTD Plan was merged into the base plan. Assets and liabilities for existing LTD members are included beginning in 2003.

<sup>(2)</sup> Values are estimated from contribution rate and amount.

<sup>(3)</sup> New assumptions adopted.

<sup>(4)</sup> The ARC is the rate adopted by the Retirement Board. This rate exceeded the actuarially calculated rate.

<sup>(5)</sup> Includes non-uniformed employees of MoDOT, Patrol, and MPERS.

## Supplementary Information

## MoDOT & Patrol Employees' Retirement System

#### Schedules of Administrative Expenses For the Years Ended June 30, 2007 and 2006

	2007	2006
PERSONAL SERVICES:		
Salary expense	\$ 701,464	\$ 635,650
Employee benefit expense	522,134	405,779
Total Personal Services	\$1,223,598	\$1,041,429
<b>PROFESSIONAL SERVICES:</b>		
Actuarial services	\$ 84,613	\$ 103,680
Actuary Audit services	\$0	\$39,000
Computer services	217,260	199,722
Audit expense	20,500	17,000
Disability program	27,360	36,723
Consultant fees	68,128	75,175
Pension Administration System	147,700	0
Other	4,697	1,829
Total Professional Services	\$ 570,258	\$ 473,129
MISCELLANEOUS:		
MoDOT reimbursement	\$ 0	\$.52,304
Depreciation	35,746	39,729
Meetings/Travel/Education	83,435	105,411
Equipment/Supplies	41,434	30,106
Printing/Postage	66,258	91,089
Insurance premium	1,193	9,303
Bank service charge	6,030	6,290
Building expenses	36,743	35,694
Other	56,069	43,110
Total Miscellaneous	\$ 326,908	\$ 413,036
TOTAL ADMINISTRATIVE EXPENSES	\$2,120,764	\$1,927,594

## Supplementary Information

## MoDOT & Patrol Employees' Retirement System

## Schedules of Investment Expenses

For the Years Ended June 30, 2007 and 2006

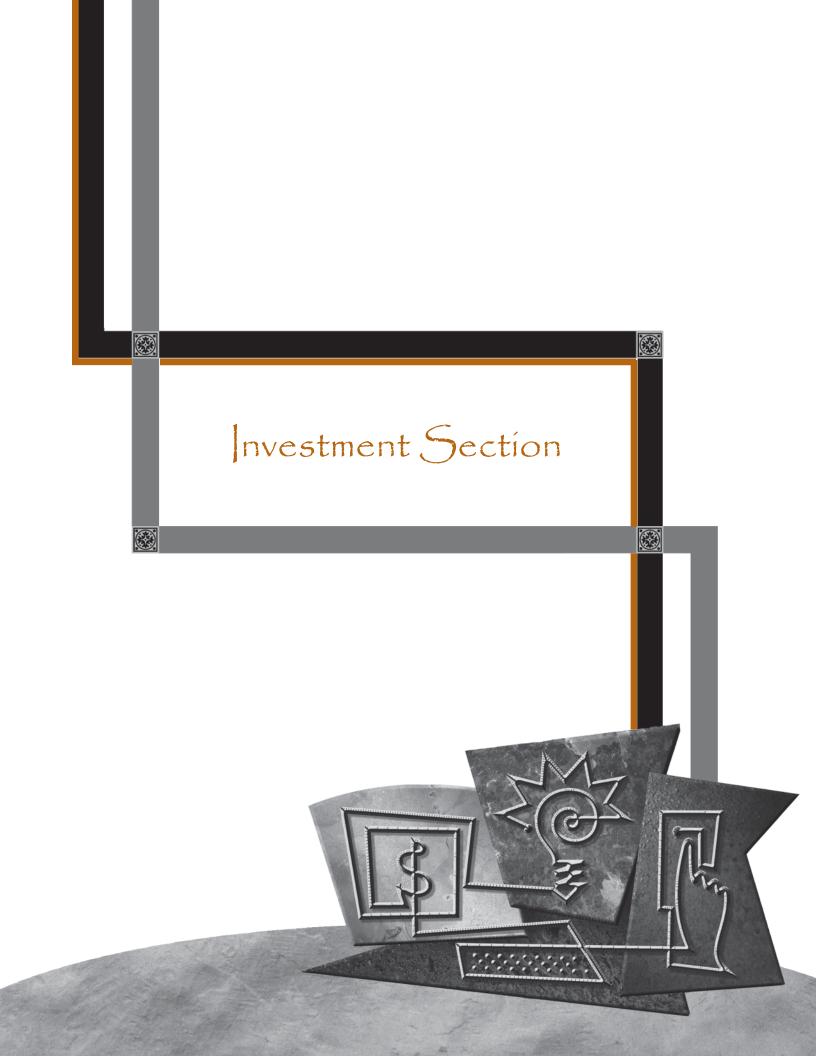
	2007	2006
INVESTMENT INCOME EXPENSES:		
Management fees		
Aberdeen (formerly Deutsche Asset Mgmt)	\$ 292,799	\$ 242,349
Acadian Asset Management	826,285	964,705
Acadian Emerging Markets	242,761	0
ACI - Citco	878,439	0
AEW	187,500	234,375
Albourne	240,000	40,000
Apollo	224,999	205,890
AQR	466,298	427,697
Artisan Partners	0	107,726
ASI	49,136	0
Audax	135,969	0
AXA Rosenberg	284,810	61,642
Barclays Global Investors	1,041,963	1,165,514
Blackrock , Inc.	107,807	103,163
Bridgewater Associates	1,100,655	1,178,335
CQS	147,143	0
CVI	262,774	0
EIF	0	0
GMO	727,215	704,632
Grove Street	2,000,000	2,000,000
ING Clarion	655,746	612,638
ING Mexico	50,000	0
Intech	456,236	417,396
Julius Baer Investment Management	771,312	801,729
Och-Ziff Real Estate	225,000	225,000
Paulson	850,099	0
Pinnacle	286,441	50,106
Principal Global Investors	1,201,713	1,104,516
RMK Timberland	205,989	205,989
Rothschild Asset Management	870,951	200,438
Shepard	656,989	0
Silchester International Investors	704,780	482,173
Urdang	156,036	187,500
Urdang II	31,250	0
Vicis	321,600	0
Western Asset Management Co.	172,470	160,472
Total management fees	\$16,833,165	\$11,883,985
Investment custodial fee	\$298,277	\$306,951
Performance management	40,646	35,854
General Consultant (monitoring) fee	168,750	150,000
Other investment expenses	171,687	76,391
TOTAL INVESTMENT INCOME EXPENSES	\$17,512,525	\$12,453,181
SECURITIES LENDING EXPENSES:		
Borrower Rebates	\$ 6,467,899	\$ 4,887,160
Bank Fees	200,449	211,614
TOTAL SECURITIES LENDING EXPENSES	\$6,668,348	\$5,098,774

## Supplementary Information

## MoDOT & Patrol Employees' Retirement System

## Schedules of Professional and Consultant Expenses For the Years Ended June 30, 2007 and 2006

	2007	2006
Actuarial services	\$ 84,613	\$ 103,680
Actuarial audit services		\$39,000
Computer services	217,260	199,722
Audit services	20,500	17,000
Disability administrative services	27,360	36,723
Legislative consultant	25,000	20,000
Customer service, benefit delivery,		
and technology improvement projects	27,128	48,295
Pension Administration System	147,700	
Insurance consultant	6,000	6,000
Salary and benefits study	10,000	880
Other	4,697	1,829
TOTAL CONSULTANT AND PROFESSIONAL EXPENSES	\$570,258	\$473,129



## Chief Investment Officer Report

Norm Robinson Executive Director



Susie Dahl Assistant Executive Director

October 1, 2007

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

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

Fiscal year 2007 (FY 07) picked up exactly where 2006 left off, capitalizing on the healthy global economy and unprecedented amounts of liquidity to generate an 18.1% investment return, net of manager fees. Most of the major asset classes witnessed double-digit returns for the year, led by the International Equity portfolio that delivered a 31.1% return. The strong performance in FY 07 helped improve MPERS' three and five-year return to a healthy 14.6% and 12.3%, respectively.

The restructuring of MPERS' investment portfolio is well underway, and the changes implemented in recent years have performed better than expected. While most of the major restructuring is complete, a lot of unfinished work remains within the private equity and real estate portfolios. The continued development of these private market investments is a critical component to a well-diversified portfolio, as we do not believe the public equity markets will continue to deliver double-digit returns forever. In fact, as of the time of this report, public equities are struggling to find their base in the midst of a deteriorating sub-prime mortgage market, and the fear this will lead to an overall slowdown in the economy.

This increased uncertainty suggests a more conservative investment approach for the future, and further diversification to protect the corpus of the fund. Over the coming year, we will continue to explore additional strategies and techniques to diversify the investment portfolio and generate higher risk-adjusted returns. Over the past few years, international equities and real estate have delivered strong returns for the fund, as asset classes such as fixed income and domestic equities have underperformed. Looking forward, we are looking to private equity and various absolute return strategies as investments that will both enhance returns and provide diversification to asset classes that fall out of favor.

In summary, I'm pleased to report that fiscal year 2007 was another exceptional year for MPERS' investment portfolio. We have made an extraordinary amount of changes over the past few years, and have been fortunate to witness some short-term success. Before concluding, I want to thank the Board of Trustees and our Executive Director for their continued support of our efforts within the investment portfolio. Their willingness to set aside personal agendas and grant staff the resources necessary to make these changes is the single most important factor to our recent success.

Sincerely,

ang Kun

Larry Krummen, CFA

Office Location: 1913 William St., Jefferson City, MO 65109 • Mailing Address: Post Office Box 1930, Jefferson City, MO 65102-1930 Telephone Number: (573) 751-4640 • Toll Free: 1-800-270-1271 • Fax: (573) 526-5895 • E-Mail: mpers@modot.mo.gov

#### Investment Section

## Investment Consultant Report



## Summit Strategies Group

8182 Maryland Avenue, Suite 600 St. Louis, Missouri 63105 telephone 314/727-7211 fax 314/727-6068 www.summitstrategies.com

October 1, 2007

Mr. Norman Robinson Executive Director MoDOT & Patrol Employees' Retirement System 1913 William Street Jefferson City, MO 65109

Dear Mr. Robinson:

I am pleased to report that the MPERS portfolio continues to deliver stellar performance results. The portfolio changes that were made in the last few years have exceeded expectations. The capital markets have been strong, your investment managers have been performing well, and the portfolio's diversification across asset classes and investment strategies has served us well.

With total assets of \$1,820,830,736 on June 30, 2007 the return was 18.1% for the year, 0.8% ahead of the policy benchmark and better than 88% of the public funds in the ICC Universe for the 12-month period! For the 3- and 5-year periods, the fund earned 14.6% and 12.3%, also ahead of the policy benchmark and in the top 10% of the peer sample as well. These returns were calculated using a time-weighted rate of return and are based on June 30, 2007 market values.

Most of this strong performance can be attributed to the System's allocations to the Domestic and International Equity markets. MPERS' U.S. stock portfolio was up 21.1% in the 12-month period – and this impressive return was eclipsed by your non-U.S. stocks, which generated a return of 31.1%. These returns exceeded the index returns of the Russell 3000 Index and the MSCI ACWI ex-US index by 1.4% and 1.1%, respectively. Your Fixed Income Composite was up 7.3%, and on the Real Estate side, the portfolio generated a 14.2% return. These returns are quite good by historical standards, and while we are pleased to capture them we do not look for returns to continue at these levels. In fact, thus far in Fiscal Year 2007-08 the markets have faced strong headwinds in several asset classes.

Your portfolio is well-diversified across stocks, bonds, real estate and private market investments. We believe the assets are well-positioned and that diversification will be the key to future success. 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, and look forward to many years of continued success with the MoDOT & Patrol Employees' Retirement System.

Sincerely,

lak & Captage

Mark A. Caplinger, CFA Senior Vice President

## Investment Activity Overview

#### Summary of Investment Policy

The primary objective of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (Plan) 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 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, 2007, MPERS' investment portfolio had a total market value of \$1.82 billion, representing an increase of \$227.3 million over fiscal year-end 2006. Over the course of the year, an additional \$56.5 million was transferred out of the fund to meet benefit payments and other obligations. When viewed together, asset growth from investments equated to \$283.8 million.

#### **Investment Performance**

The MPERS' investment portfolio returned 18.1% in fiscal year 2007, 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:

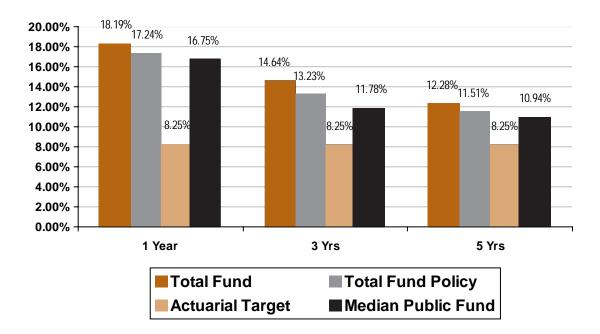
Investment Performance (Including Benchmarks)	1 Year	3 Year	5 Year
<b>Total Fund</b>	<b>18.09%</b>	<b>14.64%</b>	<b>12.28%</b>
Policy Benchmark	17.24	13.23	11.51
<b>Domestic Equity</b>	<b>21.11</b> 20.08	<b>13.46</b>	<b>12.29</b>
Russell 3000		12.44	11.53
International Equity	<b>31.14</b>	<b>27.85</b>	<b>22.05</b>
MSCI ACWI ex-US	30.14	25.03	19.93
<b>Fixed Income Composite</b>	7 <b>.28</b>	<b>5.61</b>	<b>5.15</b>
Lehman Universal Index	6.63	4.54	5.18
<b>Real Estate</b>	<b>14.40</b>	<b>15.71</b>	-
NCREIF Property Index	17.24	17.98	

## 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.

MPERS' one, three, and five-year return compares favorably to all three of the performance goals listed above. During FY07, international equity was the best performing asset class, generating a 31.1% return for the year, followed by the system's Domestic Equity portfolio that produced a 21.1% return over the period. MPERS maintained an overweight position to International Equities relative to Domestic Equities over the period, which was the leading contributor behind MPERS' excess return relative to the policy benchmark. Manager selection was also very strong within across all equity sectors, as international equity and domestic equity managers collectively returned 1.0% over their respective benchmarks for the year.

Historical returns versus the various performance goals are listed below:



## Investment Activity Overview

#### Asset Allocation Overview

Fiscal year 2007 witnessed a number of transitions within the investment portfolio. At the onset of fiscal year 2006, MPERS' asset allocation targets were 45% public equity (22.5% Domestic and 22.5% International), 32% public debt (including 16% traditional fixed income and 16% absolute return strategies), 10% real estate, 10% private equity, and 3% timber. In January of 2007, the Board of Trustees approved staff's recommendation to roll the 3% timber allocation into the overall real estate portfolio, for a combined allocation of 13% to real estate. The Board also approved a clarification to the absolute return allocation to allow for opportunistic investments into strategies such as infrastructure, oil and gas partnerships, and other liquidity-constrained absolute return strategies.

The relationship with Grove Street Advisors was active throughout the year, as they continue to assist MPERS in the construction of the private equity portfolio. Throughout FY07, Grove Street called a total of \$32.7 million in capital commitments from their total mandate of \$200 million. MPERS also made a number of commitments outside of the Grove Street relationship, and collectively ended the year with over \$41 million invested in private equity. We continue to utilize a global enhanced equity product as a private equity surrogate until the asset class is fully funded. The restructuring of the absolute return/hedge fund portfolio continued throughout the year, as MPERS officially implemented its first portable alpha strategy (over an S&P 500 mandate). The ultimate goal is to transition the absolute return program to a welldiversified alpha pool that can be used to enhance returns across a number of investment mandates. Given the increased complexity of this program, MPERS retained the services of Albourne America, LLC, a dedicated hedge fund consultant, to assist with the construction and oversight of this portfolio.

Looking forward (from an asset allocation viewpoint), we remain overweight to international equities relative to domestic equities, mainly due to a long-term bearish view on the U.S. dollar. We are also underweight to traditional fixed income securities, as alternative investments continue to offer potential for higher relative returns. The real estate portfolio is also a focal point, as we transition the portfolio to include a higher mix of value-added and opportunistic real estate strategies.

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

Asset Class	Ending FY06 Allocation	FY07 Target Allocation	Ending FY07 Allocation
Public Equity	45.5%	45%	46.2%
Domestic equity	20.0%	22.5%	20.9%
International equity	25.5%	22.5%	25.4%
Private Equity	10.1%	10%	9.8%
Fixed Income	28.8%	32%	27.4%
Real Estate	13.0%	10%	13.6%
Timber **	1.6%	3%	0.0%
Cash	1.2%	0%	3.0%

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

	06/3	0/06			06/30/07		
	Book Value	Market Value	Acquisitions	Dispositions	Book Value	Market Value	% of Market
Domestic Equity	\$ 299,846	\$ 318,861	\$ 76,013	\$ (56,041)	\$ 319,818	\$ 381,155	20.9%
International Equity	341,727	406,524	202,045	(204,147)	339,625	461,971	25.4%
Private Equity	163,667	160,350	87,885	(87,172)	164,380	178,086	9.8%
Real Estate**	184,360	232,574	34,726	(34,734)	184,352	247,045	13.6%
Fixed Income	437,256	458,754	263,106	(241,972)	458,390	498,210	27.4%
Short Term	16,828	16,826	38,206	(338)	54,696	54,746	3.0%
Total Investments	\$1,443,684	\$1,593,889	\$701,981	\$(624,404)	\$1,521,261	\$1,821,213	100.0%

#### Amounts Reported By Management-Type Allocation (In Thousands of Dollars)

#### **Reconciliation to Statement of Plan Net Assets:**

Less Accrued Investment Interest and Income	(4,572)
Less Investment Sales Receivable	(7,011)
Plus Investment Purchases Payable	10,986
Currency Adjustment	215
	\$1,820,831

\*\* Timber was rolled into the overall Real Estate Allocation on 04/01/07.

## Largest Investment Holdings

## Largest Equity Securities (Non-Commingled Funds)

Shares	Shares Security	
95,770	BNP PARIBAS	\$11,428,674.15
274,002	ROYAL DUTCH SHELL 'A'SHS	11,171,911.88
198,296	ING GROEP	8,781,445.81
283,505	FIAT SPA	8,450,330.82
1,142,654	BT GROUP	7,622,775.18
122,675	THYSSENKRUPP	7,311,401.77
36,004	SOC GENERALE	6,687,423.88
112,449	CANON INC	6,583,313.26
154,405	FORTIS UNIT	6,575,003.46
317,335	VOLVO AB SER'B'	6,340,036.02

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

Par Value	Security	Market Value
3,855,000	UNITED STATES TREAS 6% 02-15-2026	\$4,207,972
4,067,000	U.S TREAS NTS 4.625 12-31-2011	4,016,480
3,115,000	US TREAS NTS 4.625 02-29-2012	3,075,091
1,550,000	FHLMC MULTICLASS 00540 5 04-15-2033	1,470,502
1,215,000	PVTPL PEDERNALES ELEC COOP 2002 SER A 144A 6.202 11-15-2032	1,229,580
1,280,000	FHLMC MULTICLASS SER 2881 CL TE 5 07-15-2033	1,213,642
876,000	US TREAS BDS 8 3/4 8.75 08-15-2020	1,169,871
1,157,695	CMO BEAR STEARNS ARM TR 2006-1 MTG BKD NT CL A-1 02-25-2036	1,130,971
1,065,190	CMO WELLS FARGO MTG BACKED SECS 2006-AR17 CL A-1 10-25-2036	1,052,053
1,000,000	HARRIS CNTY-HSTN TEX SPORTS AUTH REV SER I 6.5 11-15-2016	1,044,040

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

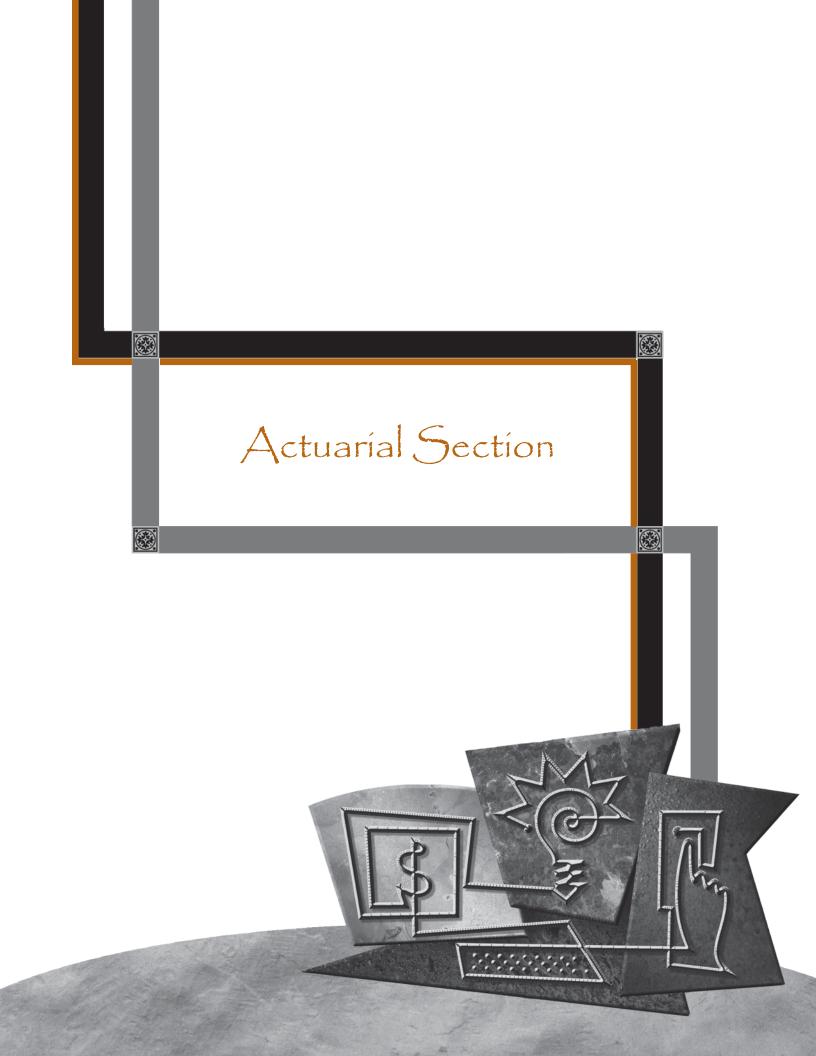
# Schedule of Investment Expenses

	Market Value of Assets Under Management at 6/30/07	Fees Accrued During FY07
Management Fees:		
Cash/S&P 500 Futures	\$ 14,157,582	\$ 0
Intech	132,828,385	456,236
Pinnacle	58,300,217	286,441
Rothschild Asset Management	57,687,592	870,951
Acadian Asset Management	166,719,758	826,285
Acadian Emerging Markets	28,670,931	242,761
Julius Baer Investment Management	155,050,664	771,312
Silchester International Investors	111,501,566	704,780
Transition Account	27,595	0
Audax	2,057,761	135,969
AXA Rosenberg	136,828,115	284,810
EIF	145,185	0
Grove Street	39,055,696	2,000,000
Aberdeen (formerly Deutsche Asset Mgmt)	109,641,949	292,799
Blackrock, Inc.	43,468,152	107,807
Western Asset Management Co.	69,343,044	172,470
ACI - Citco	27,270,863	878,439
AQR	24,415,961	466,298
ASI	9,810,642	49,136
Barclays Global Investors	89,699,060	1,041,963
Bridgewater Associates	76,425,148	1,100,655
CQS	20,480,637	147,143
GMO	75,729,149	727,215
Paulson	18,720,782	850,099
Shepard	27,082,617	656,989
Vicis	17,861,732	321,600
Albourne	0	240,000
CVI	6,441,282	262,774
AEW	6,875,647	187,500
	6,278,516	224,999
Apollo ING Clarion		655,746
ING Mexico	71,058,924 2,724,508	
		50,000
Och-Ziff Real Estate	2,944,667	225,000
Principal Global Investors	112,216,764	1,201,713
Urdang	15,588,560	156,036
Urdang II	4,138,659	31,250
RMK Timberland	25,219,247	205,989
The Northern Trust Company	54,745,992 <b>\$1,821,213,549</b>	<u> </u>
Total Management Fees	\$1,621,213,349	\$16,833,165
<u>Other investment expenses:</u> Investment custodial fee		\$ 298,277
Performance management		40,646
General Consultant (monitoring) fee		168,750
Other investment expenses		171,687
Total Investment Expenses		\$17,512,525
<u>Securities Lending Expenses:</u> Borrower Rebates		¢ ( /(7 000
		\$ 6,467,899
Bank Fees		200,449
Total Securities Lending Expenses		\$ 6,668,348

## Schedule of Brokerage Commissions

Brokerage Firm	Total Commission	Number of Shares	Commission Rate
LEHMAN BROTHERS	\$ 58,749	3,344,862	\$0.0176
DEUTSCHE BANK	47,919	3,119,313	0.0154
MERRILL LYNCH	43,110	2,809,750	0.0153
UBS	38,121	2,756,738	0.0138
GOLDMAN SACHS	25,575	1,512,900	0.0169
CITIGROUP GLOBAL	24,921	2,615,887	0.0095
MORGAN STANLEY	22,421	1,998,273	0.0112
CSFB	22,132	1,185,185	0.0187
INSTINET	16,300	1,486,251	0.0110
NOMURA SECURITIES NEW YORK	16,234	876,133	0.0185
JP MORGAN SECURITIES	14,972	1,587,398	0.0094
ABN AMRO	13,772	831,637	0.0166
CREDIT LYONNAIS	13,214	2,330,468	0.0057
GUZMAN & COMPANY	12,236	606,930	0.0202
NORTHERN TRUST CO	12,018	267,060	0.0450
DONALDSON LUFKIN & JENRETTE	10,789	436,969	0.0247
BEAR STEARNS	9,208	665,636	0.0138
BNY ESI SECURITIES CO	9,170	203,786	0.0450
WEEDEN AND & CO	8,739	406,284	0.0215
SOCIETE GENERALE	8,696	458,666	0.0190
ROSENBLATT SECURITIES	7,795	453,991	0.0172
DAIWA SECS AMERICA NEW YORK	7,319	595,996	0.0123
PERSHING LIMITED	7,157	230,140	0.0311
JEFFERIES & CO	6,921	294,960	0.0235
OTHERS (129 firms less that \$5,000 each)	125,278	127,830,958	0.0010
TOTAL AVERAGE COMMISSION RATE	\$582,766	158,906,171	\$0.0037

Broker commissions rebated to MPERS during the fiscal year amounted to \$14,927. Soft dollar expenditures (excess commissions used by managers for research services, analysis, and technology amounted to \$64,780.





Gabriel Roeder Smith & Company Consultants & Actuaries One Towne Square Suite 800 Southfield, MI 48076-3723 248.799.9000 phone 248.799.9020 fax www.gabrielroeder.com

October 1, 2007

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, 2007. This valuation indicates that contribution rates for the period beginning July 1, 2008 that are at least equal to the calculated contributions rates will meet the Board's financial objective. The calculated contribution rates are 30.73% of payroll for the 7,586 Non-Uniformed employees and 40.23% of payroll for the 1,054 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.

Based upon the valuation results, it is our opinion that the Missouri Department of Transportation and Highway Patrol Employees' Retirement System continues to be in sound condition 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. Mupley

Brian B. Murphy, F.S.A.

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Kenneth G. Alberts

Valuation Date	June 30, 2007
Actuarial Cost Method	Entry Age Normal
Amortized Method	Level percent of payroll
Remaining Amortization Period	
Amortization Approach	
Asset Valuation Method	
Actuarial Assumptions:	
Investment Rate of Return	
Projected Salary Increase	
Cost-of-Living Adjustments	2.6% Compound
Includes Wage Inflation at	

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 of 4.5%. This rate was first used for the *June 30, 2005* valuation.



*Pay increase assumptions* for individual active members are shown on page 55. 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 3.75%. 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 56. 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 57. 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.

*The probabilities of withdrawal* from service, *death in service and disability* are shown for sample ages on page 57 and page 55. 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.

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

	MoDOT, Civilia	DOT, Civilian Patrol & MPERS		ed Patrol
Service	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 Less Than 5 Years of Service

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

	MoDOT, Civiliar	MoDOT, Civilian Patrol & MPERS		ed Patrol
Age	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

## Salary Increase Assumptions For an Individual Member

#### Age Based Salary Scale

	<b>MoDOT, Civilian Patrol &amp; MPERS</b>			Uniformed Patrol		
Age	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		t Value of thly for Life		ure Life uncy (years)
Attained Ages	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.

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

	ΜοΓ	MoDOT, Civilian Patrol & MPERS			Uniformed Patrol	
	Ma	le	Fema	ale	Male	Female
Age	Normal	Early	Normal	Early	Nor	mal
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)

	MoDOT, Civiliar	n Patrol & MPERS	<b>Uniformed Patrol</b>	
Age	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-Unifo	rmed		
	Civilian	MoDOT	Non-Uniform	med Uniformed	l Grand
	Patrol	& MPERS	5 Total	Patrol	Total
Active Members					
Closed Plan	708	4,183	4,891	800	5,691
Year 2000 Plan	427	2,268	2,695	254	2,949
Total Active Members	1,135	6,451	7,586	1,054	8,640
Total Active Members Prior Year	1,106	6,867	7,973	1,060	9,033
Retiree Regular Pensioners					
Closed Plan	409	3,889	4,298	741	5,039
Year 2000 Plan	_ 270	1,664	1,934	1	1,935
Total Regular Pensioners	679	5,553	6,232	742	6,974
Self Insured Disability Pensioners	7	103	110	2	112
Fully Insured Disability Pensioners	1	52	53	2	55
Terminated Vested Members	205	1,253	1,458	151	1,609
Total	2,027	13,412	15,439	1,951	17,390
Active Member					
Valuation Payroll	\$39,772,873	\$259,468,418	\$299,241,291	\$ 61,601,130 \$	360,842,421
Active Member					
Valuation Payroll Prior Year	\$35,842,213	\$258,578,248	\$294,420,461	\$ 54,194,238 \$	348,614,699
Unfunded Actuarial					
Accrued Liability	N/A	N/A	\$937,436,779	\$274,023,626 \$	1,211,460,405

Member data for Actuarial valuation is as of May 31, 2007.

## Active Members By Attained Age & Years of Service

## **MoDOT and MPERS**

#### **Closed Plan**

	Со	unted by	Totals						
Attained Age	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	-	78	2	-	-	-	-	80	2,745,155
30-34	-	199	138	2	-	-	-	339	13,758,322
35-39	-	155	319	121	6	-	-	601	25,569,916
40-44	-	139	198	244	191	8	-	780	33,777,272
45-49	-	67	140	145	173	134	109	768	33,726,477
50-54	-	49	82	82	106	44	67	430	32,307,420
55-59	-	59	80	86	92	46	83	446	18,721,083
60-64	-	24	23	34	24	7	29	141	5,969,813
65-69	-	5	4	3	1	1	6	20	864,607
70+	-	1	1	2	-	1	1	6	240,258
Totals	0	848	1,091	818	<b>80</b> 7	387	232	4,183	\$180,293,028
			Average A Average S Average I	Service		46.2 years 17.1 years \$43,101			

#### Year 2000 Plan

	Со	unted by	Totals						
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	8	-	-	-	-	-	-	8	\$ 192,491
20-24	229	4	-	-	-	-	-	233	7,961,606
25-29	358	118	-	-	-	-	-	476	17,459,195
30-34	252	118	-	-	-	-	-	370	13,337,481
35-39	203	93	-	-	-	-	-	296	10,338,022
40-44	206	89	-	-	-	-	-	295	9,585,887
45-49	183	76	-	-	-	-	-	259	8,761,777
50-54	132	50	-	-	-	-	-	182	6,221,956
55-59	72	24	-	-	-	-	-	96	3,386,466
60-64	36	12	-	-	-	-	-	48	1,718,314
65-69	2	2	-	-	-	-	-	4	181,016
70+	-	1	-	-	-	-	-	1	31,179
Totals	1,681	587	0	0	0	0	0	2,268	\$79,175,390
			Average A Average S Average S	Service		37.5 years 3.3 years \$34,910			

## Active Members By Attained Age and Years of Service

## **Uniformed Patrol**

#### **Closed Plan**

	Co	unted by	Totals						
Attained Age	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	-	9	-	-	-	-	-	9	442,269
30-34	-	63	53	-	-	-	-	116	6,149,971
35-39	-	38	168	32	-	-	-	238	14,058,352
40-44	-	9	54	90	24	-	-	177	11,647,936
45-49	-	2	13	32	59	18	2	126	8,734,220
50-54	-	-	1	5	18	35	44	103	7,470,041
55-59	-	-	-	-	3	5	23	31	2,372,389
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	0	121	289	159	104	58	69	800	\$50,875,178
			Average A Average Se Average Pa	ervice		42.0 years 16.9 years \$63,594			

#### Year 2000 Plan

	Co	unted by	Totals						
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	43	-	-	-	-	-	-	43	1,584,226
25-29	90	23	-	-	-	-	-	113	4,826,521
30-34	43	30	-	-	-	-	-	73	3,179,607
35-39	9	8	-	-	-	-	-	17	766,541
40-44	4	2	-	-	-	-	-	6	276,054
45-49	1	-	-	-	-	-	-	1	47,000
50-54	-	1	-	-	-	-	-	1	46,003
55-59	-	-	-	-	-	-	-	0	0
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
Totals	190	64	0	0	0	0	0	254	\$10,725,952
			Average A Average S Average P	ervice		29.4 years 3.7 years \$42,228			

## Active Members By Attained Age and Years of Service

## **Civilian Patrol**

#### **Closed Plan**

	Co	unted by		Totals					
Attained Age	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	-	8	3	-	-	-	-	11	312,298
30-34	-	22	21	-	-	-	-	43	1,621,442
35-39	-	25	38	14	1	-	-	78	2,864,029
40-44	-	27	46	31	26	4	-	134	5,043,812
45-49	-	18	28	33	40	29	4	152	5,812,197
50-54	-	13	32	16	37	31	21	150	6,186,834
55-59	-	11	22	23	19	15	16	106	3,946,370
60-64	-	5	10	7	5	1	2	30	935,309
65-69	-	-	1	1	-	-	1	3	115,344
70+	-	-	-	1	-	-	-	1	28,574
Totals	0	129	201	126	128	80	44	708	\$26,866,209
			Average A Average S Average P	ervice		47.6 years 17.4 years \$37,947			

#### Year 2000 Plan

	Co	ounted by	Totals						
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	41	-	-	-	-	-	-	41	1,172,978
25-29	76	19	-	-	-	-	-	95	3,514,819
30-34	35	26	-	-	-	-	-	61	1,932,872
35-39	48	12	-	-	-	-	-	60	1,680,385
40-44	27	14	-	-	-	-	-	41	1,138,099
45-49	32	15	-	-	-	-	-	47	1,268,827
50-54	23	9	-	-	-	-	-	32	864,648
55-59	17	10	-	-	-	-	-	27	762,558
60-64	12	7	-	-	-	-	-	19	478,147
65-69	2	1	-	-	-	-	-	3	70,245
70+	-	1	-	-	-	-	-	1	23,086
Totals	313	114	0	0	0	0	0	427	\$12,906,664
			Average A Average S Average P	ervice		38.5 years 3.3 years \$30,226			

## 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
06/30/1998	8,871	\$284,889,796	\$32,115	3.1%
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%
		Ter	3.0%	

Member data for Actuarial valuation is as of May 31, 2007.

## 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. Testing for level contribution rates in the long term test.

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	(1) Retirees and Beneficiaries	(2) Active and Inactive Members	Present Valuation Assets	Portion of Present Values Covered by Present Assets			
June 30	(Millions)	(Millions)	(Millions)	(1)	(2)	Total	
1999	\$1,132	\$ 921	\$1,243	100%	12%	61%	
2000	1,238	951	1,423	100%	19%	65%	
2001	1,375	926	1,521	100%	16%	66%	
2002 *	1,470	888	1,451	99%	0%	62%	
2003	1,555	863	1,364	88%	0%	56%	
2004	1,626	867	1,332	82%	0%	53%	
2005 *	1,669	958	1,417	85%	0%	54%	
2006	1,734	1,007	1,521	88%	0%	56%	
2007 *	1,810	1,087	1,686	93%	0%	58%	

\* 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)	\$1,219,294,884
Normal Cost	45,753,500
Contributions	(121,773,287)
Interest	97,456,012
Net Change in LTD Assets	0
Expected UAAL Before Any Changes	1,240,731,109
Effect of Changes in Assumptions & Methods	493,591
Expected UAAL After Changes	1,241,224,700
End of Year UAAL (at June 30)	1,211,460,405
Gain/(Loss) for Year Gain/(Loss) as a percent of actuarial accrued liabilities	\$ 29,764,295
at start of year (\$2,740.4 million)	1.1%

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%

## Schedule of Retirees & Beneficiaries Added & Removed

Valuation						End of Year			crease
Date N	umber	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances	Average Annual Allowances	in Annual Allowance	in Average Annual Allowance
FY2007									
Retirees	310	\$ 3,052,533	157	\$1,373,300	5,177	\$138,917,326	\$26,834	4.87%	1.77%
Beneficiaries	131	51,253	112	617,163	1,812	22,283,555	12,298	8.09%	6.96%
Disabilities	36	0	24	116,307	166	2,237,892	13,481	38.31%	28.31%
FY2006									
Retirees	252	\$ 3,005,557	166	\$1,477,199	5,024	\$132,465,613	\$26,367	3.89%	1.74%
Beneficiaries	106	715,154	75	381,966	1,793	20,615,839	11,498	7.09%	5.24%
Disabilities	22	170,138	22	106,561	154	1,618,075	10,507	9.70%	8.99%
		1, 0,100		100,901	191	1,010,079	10,007	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	017770
FY2005									
Retirees	202	\$ 4,685,700	125	\$2,373,810	4,920	\$127,508,904	\$25,916	3.53%	1.91%
Beneficiaries	106	1,527,938	79	618,487	1,762	19,251,121	10,926	7.95%	6.29%
Disabilities	7	95,296	7	47,561	153	1,474,983	9,640	-1.86%	-1.86%
FY2004									
Retirees	295	\$ 7,389,209	143	\$2,239,625	4,843	\$123,159,002	\$25,430	5.95%	2.62%
Beneficiaries	114	1,423,712	89	¢2,299,029 557,685	1,735	17,833,685	10,279	7.64%	6.08%
Disabilities	9	87,586	11	36,938	153	1,502,868	9,823	-19.77%	-18.72%
		-,,,,					,,		
FY2003									
Retirees	249	\$ 6,319,872	101	\$2,062,469	4,691	\$116,243,532	\$24,780	6.24%	2.89%
Beneficiaries	121	1,627,820	91	650,474	1,710	16,568,589	9,689	9.58%	7.66%
Disabilities	20	180,624	22	43,088	155	1,873,102	12,085	36.86%	38.62%
FY2002									
Retirees	303	\$ 8,089,425	134	\$2,193,413	4 543	\$109,416,172	\$24,085	7.59%	3.59%
Beneficiaries	119	1,768,570	76	369,662	1,680	15,120,376	9,000	11.53%	8.68%
Disabilities	17	168,853	41	180,231	157	1,368,640	8,717	-11.88%	1.59%
		,		, -		,- ,	<i>.</i>		
FY2001									
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%
FY2000									
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 8 years of information are available.

Data for this chart is as of June 30, 2007.



## Summary of Plan Provisions \*

#### Comparison of the Closed Plan and the Year 2000 Plan For the Year Ended June 30, 2007

Plan Provision	Closed Plan	Year 2000 Plan
Membership Eligibility	Members who work in a position normally requiring at least 1,040 hours of work a year.	Members hired for the first time on or after July 1, 2000, in a position 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.
Normal Retirement Eligibility	Age 65 & active with 4 years of service. Age 65 with 5 years of service. Age 60 with 15 years of service. "Rule of 80" / minimum age 48. 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).
Early Retirement Eligibility	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").
Vesting	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)	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.	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.
Non Duty- Related Death	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.	
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</b> <b>Payment</b> (Death After Retirement)	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: -Life Income Annuity -Unreduced Joint & 50% Survivor -Joint & 100% Survivor -60 or 120 Guaranteed Payments -BackDROP	Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: -Life Income Annuity -Joint & 50% Survivor -Joint & 100% Survivor -120 or 180 Guaranteed Payments -BackDROP

\* 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 - highest 36 consecutive months of pay.

## Legislative Changes

Governor Matt Blunt signed into law Senate Bills 127 and 406 – legislation that contains several changes to the retirement plan for state employees. Most of the provisions will become effective August 28, 2007; however, one provision is effective January 1, 2008.

#### Member Added to Board of Trustees

The legislation provides for the election of an additional member to the MPERS Board of Trustees. The retired employees of MoDOT will elect one retiree and the retired employees of the Missouri State Highway Patrol (MSHP) will elect the other. An election will be held by MPERS before January 1, 2008 for the retiree elected by the retired employees of the MSHP.

#### **Purchase of Service**

Current law allowed Closed Plan uniformed members of the Highway Patrol to purchase, prior to retirement, up to four years of creditable service for time served as a nonfederal full-time public employee in the state of Missouri. This type of service could include work performed for a city, county, or public school district. The law now extends this purchase provision to all employees of Missouri Department of Transportation (MoDOT) and the civilian employees of the Missouri State Highway Patrol (MSHP) who are members of the Closed Plan.

This type of purchase was previously allowed, but members were required to pay the full actuarial cost of the service. The calculation to determine the cost of the purchase under the new provision is the same one used by MPERS to determine the cost of a military service purchase. Generally speaking this results in a lower cost to members to purchase the service.

Senate Bill 406, requires members purchasing service to complete the purchase prior to applying for retirement. This provision was added to ensure that applicants receive the most accurate benefit estimates possible during the application process.

#### **Reemployment of Retirees**

Benefit eligibility to participate in MPERS was modified to cover positions requiring 1,040 hours rather than 1,000. This change was offered to support the original intent that half-time positions be covered by the system. A statute change also established that Year 2000 plan retirees who are reemployed be required to work at least one year in order to earn a second retirement benefit. Any reemployment periods less than 12 months will not earn an additional annuity. The retirement benefit of any Year 2000 Plan retiree who returns to work full time will be suspended during the period they are reemployed in a benefit eligible position.

#### **Divorce Situations**

This change in statute only affects individuals who retire after August 28, 2007 and subsequently divorce. Further, the change applies only in situations where; 1) the court has issued a Division of Benefits Order related to the member's benefit; and 2) the member elected a spouse option at the time of retirement. The result of the change will be to apply the reduction factor used in the calculation of the member's benefit to the benefit of the ex-spouse.

#### Plan Changes Related to Benefit Enhancements

In an effort to improve the funding status of some plans in the state, the legislature passed a provision that limits plans from adopting or implementing any additional benefit increase, supplement, enhancement, lump sum benefit payment to the participant, or cost-of-living adjustment beyond current plan provisions in effect prior to August 28, 2007, unless the plans funded ratio prior to adopting or implementing the proposed change is at least eighty percent. In addition, after the plan changes are adopted, the funded ratio cannot be less than seventy-five percent.

In addition, this legislation stipulated that the unfunded actuarial accrued liabilities associated with any benefit increase, supplement or enhancement must be amortized over a period not to exceed 20 years for purposes of determining the contributions associated with adopting the change.

Plans with a funded ratio below sixty percent must have their actuary prepare an accelerated contribution schedule based on a descending amortization period for inclusion in the actuarial valuation.

## Notes

# Statistical Section

## \* Information, excluding financial data on pages 70 & 71, was gathered using an internal pension administration system.

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

					Fisc	Fiscal Year				
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<u>Additions</u> Employer Contributions	\$ 78,303,693	\$ 78,303,693 \$ 69,569,654	\$70,191,993	\$70,191,993 \$ 81,155,196 \$	\$ 77,440,468	\$ 76,806,313	\$ 86,724,914	\$102,240,145	\$111,271,679	\$121,264,532
Other Contributions	0	0	0	197,823	640,254	2,584,257	842,665	364,680	271,038	529,926
Net Investment Income	160,751,704	160,751,704 149,470,276	52,025,236	(32,956,576)	(88, 252, 400)	36,526,003	180,910,907	144,641,068	212,206,238	283,549,424
Other Income	7,969	0	0	0	0	0	33,851	31,104	41,542	31,580
Total Additions										
to Plan Net Assets	239,063,366	239,063,366 219,039,930	122,217,229	48,396,443	48,396,443 (10,171,678)	115,916,573	268,512,337	247,276,997	323,790,497	405,375,462
<u>Deductions</u>										
Benefit Payments	78,994,438	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
Administrative Expenses	630,841	679,362	665,941	835,215	1,334,555	1,451,855	1,639,133	1,916,592	1,927,594	2,120,764
Total Deductions										
from Plan Net Assets	79,625,279	86,934,563	96,068,795	112,820,279	112,820,279 134,833,373	145,786,200	156,626,160	159,658,929	166,925,000	178,091,243
Change in Net Assets	\$159,438,087	\$132,105,367	\$26,148,434	\$(64,423,836)	\$(145,005,051)	\$159,438,087         \$132,105,367         \$26,148,434         \$(64,423,836)         \$(145,005,051)         \$(29,869,627)         \$111,886,177         \$ 87,618,068         \$156,865,497         \$227,284,219	\$111,886,177	\$ 87,618,068	\$156,865,497	\$227,284,219

## Changes in Net Assets

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

					Fiscal Year	Year				
Type of Benefit	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<u>Age &amp; Service Benefits:</u> Retiree & Survivor										
Annuity Payments BackDROP Payments	\$78,232,784 0	\$85,481,941 0	\$78,232,784 \$85,481,941 \$94,593,110 \$111,189,631 0 0 0	\$111,189,631 0	10,771,393	\$131,689,970 11,696,862	\$138,767,316 14,318,622	\$145,118,809 8,880,770	151,647,091 9,721,059	\$159,145,368 13,177,432
Disability Benefits:										
Long-Term Disability	506,654	553,260	519,744	490,433	515,680	537,513	555,434	475,948	386,026	288,908
Work-Related Disability <sup>(1)</sup>	0	0	0	0	0	0	633,299	718,248	747,723	703,159
Normal Disability <sup>(1)</sup>	0	0	0	0	0	0	302,356	295,776	244,208	220,490
Insured Disability <sup>(2)</sup>	0	0	0	0	0	0	0	1,837,786	1,796,299	1,905,122
Death Benefits	2.55.000	220.000	290.000	305.000	42.5.000	410.000	410.000	415.000	455.000	530.000
	000/11	0000011	1	000000		000611	0006011	0006/11	0000000	000000
Total Benefits	\$78,994,438	\$78,994,438 \$86,255,201	<u>\$95,402,854</u> <u>\$111,985,064</u>	\$111,985,064	\$133,498,818	\$144,334,345	\$154,987,027	\$157,742,337	\$164,997,406	\$175,970,479

<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.

# Benefit Payments By Type

## Schedule of Retired Members By Type of Benefit

			٢	Type of Benefit			
Amount of	Retire	ment		Disability			Total
Monthly Benefit	Normal	Early	Normal	Work-Related	Long-Term	Survivor	Recipients
1-200	17	27	5	0	3	200	252
201-400	104	97	5	1	18	316	541
401-600	142	91	4	0	14	262	513
601-800	187	40	7	2	8	214	458
801-1000	202	25	2	5	3	144	381
1001-1200	257	15	4	3	0	120	399
1201-1400	268	5	2	4	1	95	375
1401-1600	292	3	0	4	0	74	373
1601-1800	322	7	0	8	0	65	402
1801-2000	335	1	0	3	0	61	400
2001-2200	323	1	0	1	0	49	374
2201-2400	309	2	0	3	0	43	357
2401-2600	325	1	0	1	0	34	361
2601-2800	240	0	0	1	0	21	262
2801-3000	191	0	0	0	0	23	214
> 3000	1,348	0	0	0	0	91	1,439
TOTALS	4,862	315	29	36	47	1,812	7,101 *

### All Members

#### MoDOT

			Т	ype of Benefit			
Amount of	Retire	ment		Disability			Total
Monthly Benefit	Normal	Early	Normal	Work-Related	Long-Term	Survivor	Recipients
1-200	14	18	5	0	2	186	225
201-400	76	81	5	1	17	297	477
401-600	107	79	4	0	11	239	440
601-800	152	34	7	2	8	188	391
801-1000	166	21	2	5	3	120	317
1001-1200	228	13	4	3	0	106	354
1201-1400	231	5	2	4	1	71	314
1401-1600	259	3	0	4	0	58	324
1601-1800	268	7	0	5	0	54	334
1801-2000	287	1	0	2	0	40	330
2001-2200	271	1	0	1	0	30	303
2201-2400	268	2	0	3	0	33	306
2401-2600	286	1	0	0	0	26	313
2601-2800	207	0	0	1	0	16	224
2801-3000	165	0	0	0	0	19	184
> 3000	758	0	0	0	0	72	830
TOTALS	3,743	266	29	31	42	1,555	5,666

\* This number includes four retirement system staff retirees.

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

			Туре	of Benefit			
Amount of	Retire	ment		Disability			Total
Monthly Benefit	Normal	Early	Normal	Work-Related	Long-Term	Survivor	Recipients
1-200	0	0	0	0	0	1	1
201-400	5	0	0	0	0	4	9
401-600	9	0	0	0	0	6	15
601-800	6	0	0	0	0	13	19
801-1000	4	0	0	0	0	10	14
1001-1200	3	0	0	0	0	5	8
1201-1400	4	0	0	0	0	10	14
1401-1600	1	0	0	0	0	13	14
1601-1800	4	0	0	2	0	8	14
1801-2000	5	0	0	0	0	17	22
2001-2200	1	0	0	0	0	15	16
2201-2400	3	0	0	0	0	10	13
2401-2600	3	0	0	1	0	7	11
2601-2800	11	0	0	0	0	5	16
2801-3000	13	0	0	0	0	4	17
> 3000	526	0	0	0	0	16	542
TOTALS	598	0	0	3	0	144	745

#### **Uniformed Patrol**

#### **Civilian Patrol**

			Туре	of Benefit			
Amount of	Retire	ment		Disability			Total
Monthly Benefit	Normal	Early	Normal	Work-Related	Long-Term	Survivor	Recipients
1-200	2	9	0	0	1	13	25
201-400	23	16	0	0	1	15	55
401-600	26	12	0	0	3	17	58
601-800	29	6	0	0	0	13	48
801-1000	31	4	0	0	0	14	49
1001-1200	26	2	0	0	0	9	37
1201-1400	33	0	0	0	0	14	47
1401-1600	32	0	0	0	0	3	35
1601-1800	50	0	0	1	0	3	54
1801-2000	43	0	0	1	0	4	48
2001-2200	51	0	0	0	0	4	55
2201-2400	38	0	0	0	0	0	38
2401-2600	36	0	0	0	0	1	37
2601-2800	21	0	0	0	0	0	21
2801-3000	13	0	0	0	0	0	13
> 3000	63	0	0	0	0	3	66
TOTALS	517	49	0	2	5	113	686

## Schedule of Average Monthly Benefit Payments

#### MoDOT

#### By Years of Service

Retired	l In								
Fiscal Y	Year	0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
1998	Average Benefit	\$ 255	574	723	1,164	1,670	2,271	2,763	3,316
	Average FAP	\$1,653	1,915	2,293	2,217	2,601	2,944	3,217	3,466
	<b>Current Retirees</b>	3	8	10	19	39	38	47	25
1999	Average Benefit	\$ 369	627	862	1,241	1,745	2,464	2,870	3,536
	Average FAP	\$1,915	2,136	1,979	2,456	2,500	3,219	3,517	3,932
	<b>Current Retirees</b>	1	7	13	18	36	34	38	21
2000	Average Benefit	\$ 275	554	952	1,095	2,045	2,587	2,795	3,625
	Average FAP	\$1,614	2,360	2,621	2,290	2,905	3,345	3,561	4,190
	<b>Current Retirees</b>	2	9	12	17	53	69	56	39
2001	Average Benefit	\$ 292	472	706	1,229	2,001	2,699	2,802	3,576
	Average FAP	\$2,051	1,774	1,559	2,291	2,802	3,384	3,699	4,330
	<b>Current Retirees</b>	19	24	26	32	76	151	61	25
2002	Average Benefit	\$ 392	576	698	1,270	2,216	2,736	2,822	2,701
	Average FAP	\$2,216	2,627	2,379	2,603	3,128	3,712	4,150	4,063
	<b>Current Retirees</b>	1	16	14	29	57	63	32	19
2003	Average Benefit	\$ 346	471	698	1,259	2,121	2,591	2,732	3,068
	Average FAP	\$2,299	1,955	2,060	2,379	3,006	3,451	3,841	4,085
	<b>Current Retirees</b>	13	11	12	21	48	38	31	15
2004	Average Benefit	\$ 332	561	<b>90</b> 7	1,282	2,082	2,817	2,508	3,389
	Average FAP	\$3,034	2,691	2,806	2,564	2,878	3,453	3,639	4,642
	<b>Current Retirees</b>	10	15	19	23	67	60	27	8
2005	Average Benefit	\$ 351	429	745	1,360	2,272	2,504	3,086	2,978
	Average FAP	\$2,558	1,964	2,732	2,676	3,367	3,319	3,906	4,003
	<b>Current Retirees</b>	12	19	21	9	51	22	19	7
2006	Average Benefit	\$ 338	547	753	1,368	2,298	2,537	3,414	3,373
	Average FAP	\$3,109	2,769	2,711	3,024	3,441	3,379	4,182	4,086
	<b>Current Retirees</b>	14	16	18	26	59	33	11	7
2007	Average Benefit	\$ 248	464	699	1,516	2,233	2,782	3,069	3,107
	Average FAP	\$2,218	2,409	2,475	3,007	3,389	3,785	3,970	3,938
	<b>Current Retirees</b>	24	28	21	31	68	38	15	7

FAP = Final Average Pay

## Schedule of Average Monthly Benefit Payments (continued)

#### **Uniformed Patrol**

#### By Years of Service

Fiscal Y	Year	0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
1998	Average Benefit	\$ 0	406	0	0	3,952	4,551	5,350	0
	Average FAP	\$ 0	1,072	0	0	4,412	4,464	4,458	0
	<b>Current Retirees</b>	0	1	0	0	8	19	1	0
1999	Average Benefit	\$0	484	0	1,936	3,930	4,603	4,969	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	Average Benefit	\$ <b>0</b>	695	0	2,038	4,153	4,520	5,009	0
	Average FAP	\$ 0	1,275	0	3,053	4,792	4,867	4,735	0
	<b>Current Retirees</b>	0	1	0	2	2	15	8	0
2001	Average Benefit	<b>\$</b> 0	547	0	1,261	3,329	4,431	5,219	5,659
	Average FAP	\$ 0	801	0		4,286	4,849	5,341	5,352
	Current Retirees	0	3	0	1	6	11	4	1
2002	Average Benefit	<b>\$</b> 0	698	1,759	3,194	3,769	4,437	4,866	6,300
	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	Average Benefit	\$ 366	474	0	0	3,382	4,364	4,389	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	Average Benefit	\$ 566	394	1,434	0	3,167	3,876	4,297	4,781
	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	Average Benefit	<b>\$</b> 0	603	1,233	2,444	3,277	3,506	4,834	5,151
	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	Average Benefit	\$ 382	0	1,254	0	3,098	3,774	4,289	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	Average Benefit	\$ 509	646	958	0	3,153	4,130	4,623	0
	Average FAP	\$2,292	2,260	2,899	0	5,287	5,684	5,514	0
	<b>Current Retirees</b>	1	3	2	0	5	12	5	0

## Schedule of Average Monthly Benefit Payments (continued)

#### **Civilian Patrol**

#### By Years of Service

Retired Fiscal Y		0-1(	) 11-15	16-20	21-25	26-30	31-35	36-40	41+
1998	Average Benefit	\$ 223	664	850	993	1,571	2,277	2,610	3,580
1770	Average FAP	\$1,292	1,976	2,083	2,074	2,654	2,946	3,126	3,618
	Current Retirees	1	3	2	2	4	7	4	2
1999	Average Benefit	\$0	363	545	1,161	1,554	2,206	2,586	0
	Average FAP	\$ 0	1,422	1,363	2,290	2,443	2,893	3,130	0
	Current Retirees	0	3	1	3	2	10	6	0
2000	Average Benefit	\$ 300	618	725	1,136	1,948	2,382	2,733	2,709
	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	Average Benefit	\$ 279	595	819	1,068	1,948	2,567	2,648	2,754
	Average FAP	\$1,844	1,083	1,936	2,057	2,911	3,158	3,714	3,176
	<b>Current Retirees</b>	5	1	1	3	13	23	10	2
2002	Average Benefit	\$ 186	316	944	1,153	2,012	2,298	2,180	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	Average Benefit	\$ 357	417	621	1,240	2,108	2,062	1,985	2,082
	Average FAP	\$1,917	1,405	2,498	2,490	2,720	2,855	3,611	3,001
	<b>Current Retirees</b>	3	3	5	3	10	15	3	3
2004	Average Benefit	\$ 242	442	542	1,332	1,767	2,364	2,797	5,167
	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	Average Benefit	\$ 235	378	645	922	2,557	3,450	1,649	3,149
	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	Average Benefit	\$ 161	420	561	1,083	2,415	2,728	2,929	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	Average Benefit	\$ 275	432	465	1,320	2,383	2,498	2,143	0
	Average FAP	\$1,853	1,924	1,924	2,491	3,450	3,275	2,742	0
	<b>Current Retirees</b>	5	5	4	6	8	13	3	0

FAP = Final Average Pay

## Schedule of Average Monthly Benefit Payments (continued)

#### **MPERS**

#### By Years of Service

Retired Fiscal Y		0	-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
1999	Average Benefit	\$1	09	0	0	0	0	0	0	0
	Average FAP	\$9	15	0	0	0	0	0	0	0
	Current Retirees		1	0	0	0	0	0	0	0
2003	Average Benefit	\$	0	0	0	0	2,632	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	3,146	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	911	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

	MoDC	DT	Patro	1	MPER	RS	Total	
	Employees	%	Employees	%	Employees	%	Employees	%
1998	6,633	74.96	2,212	25.00	4	0.04	8,849	100
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

Data for this chart is as of June 30, 2007.

### Active Member Data For the Year Ended June 30, 2007

### By Age

#### **Closed** Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21-25	2	2	0	0	0
26-30	169	130	16	21	2
31-35	585	383	49	151	2
36-40	939	615	86	236	2
41-45	1,125	828	130	167	0
46-50	1,275	1,004	152	117	2
51-55	914	687	136	90	1
56-60	481	371	92	18	0
61-65	106	86	19	0	1
> 65	20	17	3	0	0
Total	5,616	4,123	683	800	10
Average Age		46	47	42	42

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	26	23	3	0	0
21-25	454	325	65	63	1
26-30	661	467	82	112	0
31-35	484	365	60	59	0
36-40	358	292	52	14	0
41-45	359	310	45	3	1
46-50	303	255	47	1	0
51-55	202	169	32	1	0
56-60	122	92	30	0	0
61-65	50	35	15	0	0
> 65	4	3	1	0	0
Total	3,023	2,336	432	253	2
Average Age		37	38	29	34

### Active Member Data For the Year Ended June 30, 2007

### By Years of Service

#### **Closed** Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	6	6	0	0	0
01-05	24	24	0	0	0
06-10	1,304	974	162	165	3
11-15	1,512	1,060	174	276	2
16-20	1,021	726	136	158	1
21-25	956	778	103	75	0
26-30	544	385	83	73	3
31-35	206	134	21	51	0
36-40	36	30	3	2	1
41-45	7	6	1	0	0
46 +	2	2	0	0	0
Total	5,618	4,125	683	800	10
Average Service		17	17	17	20

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	588	470	84	33	1
01-05	1,887	1,428	284	174	1
06-10	541	431	64	46	0
11-15	5	5	0	0	0
16-20	1	1	0	0	0
21-25	0	0	0	0	0
26-30	0	0	0	0	0
31-35	0	0	0	0	0
36-40	0	0	0	0	0
41-45	0	0	0	0	0
46 +	0	0	0	0	0
Total	3,021	2,334	432	253	2
Average Service		3	3	3	2

### Terminated Vested Member Data For the Year Ended June 30, 2007

### By Age

#### **Closed** Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
26-30	32	24	7	1	0
31-35	151	110	19	22	0
36-40	314	216	37	61	0
41-45	374	294	42	38	0
46-50	341	279	49	13	0
51-55	243	195	35	13	0
56-60	110	93	15	2	0
61-65	8	4	4	0	0
> 65	0	0	0	0	0
Total	1573	1215	208	150	0
Average Age		45	45	41	0

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21-25	2	2	0	0	0
26-30	17	14	3	0	0
31-35	17	15	2	0	0
36-40	8	4	4	0	0
41-45	7	5	2	0	0
46-50	4	4	0	0	0
51-55	4	3	1	0	0
56-60	2	2	0	0	0
61-65	0	0	0	0	0
> 65	0	0	0	0	0
Total	61	49	12	0	0
Average Age		36	37	0	0

### Terminated Vested Member Data For the Year Ended June 30, 2007

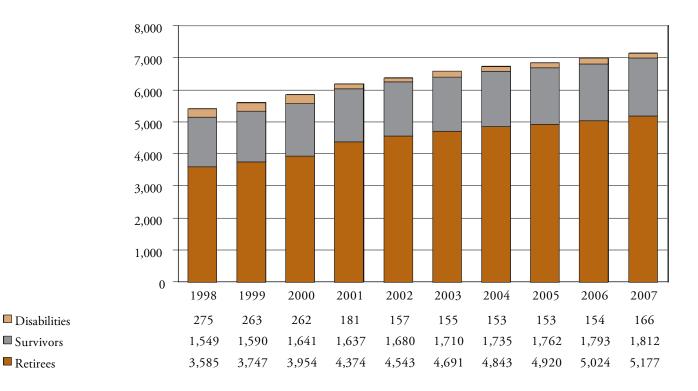
### By Years of Service

#### **Closed** Plan

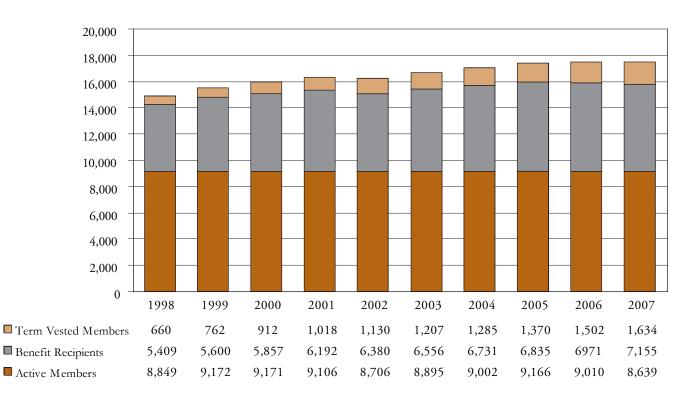
Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 1	0	0	0	0	0
1-5	0	0	0	0	0
06-10	227	180	35	12	0
11-20	516	369	60	87	0
16-20	417	338	53	26	0
21-25	234	198	30	6	0
26-30	106	74	14	18	0
31-35	46	33	12	1	0
36-40	26	22	4	0	0
41-45	1	1	0	0	0
46 +	0	0	0	0	0
Total	1,573	1,215	208	150	0
Average Service		17	17	16	0

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 1	0	0	0	0	0
1-5	10	6	4	0	0
6-10	51	43	8	0	0
11-15	0	0	0	0	0
16-20	0	0	0	0	0
21-25	0	0	0	0	0
26-30	0	0	0	0	0
31-35	0	0	0	0	0
36-40	0	0	0	0	0
41-45	0	0	0	0	0
46 +	0	0	0	0	0
Total	61	49	12	0	0
Average Service		6	6	0	0

## Benefit Recipients

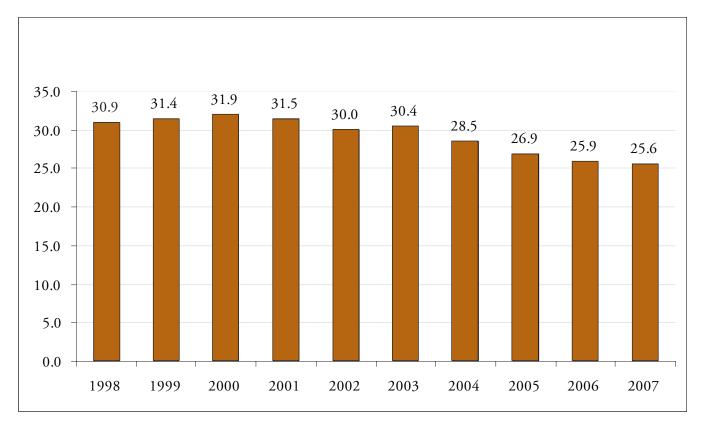


## Membership Distribution

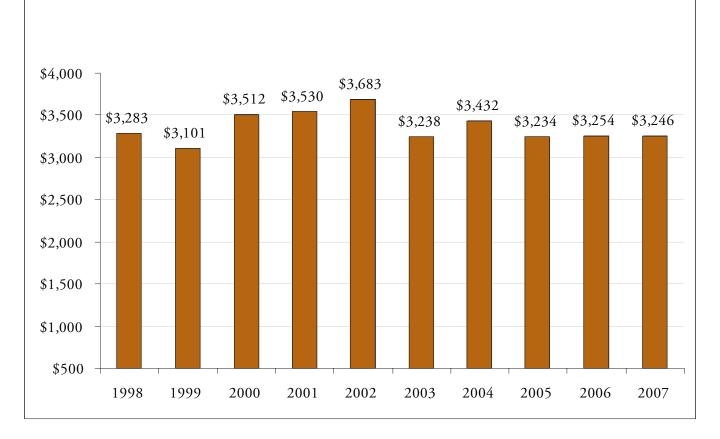


Statistical Section

## Average Years of Service for New Retirees



## Final Average Pay for New Retirees



### Location of MPERS Retirees For the Year Ended June 30, 2007

This map represents the demographic distribution of retirees by state.

