THE BOTTOM LINE

We are here for your benefit.

Missouri State Employees' Retirement System

A Component Unit of the State of Missouri

Comprehensive Annual Financial Report

Fiscal Year Ended June 30, 2014

MOSERS®

Missouri State Employees' Retirement System
A Component Unit of the State of Missouri

Comprehensive Annual Financial Report
Fiscal Year Ended June 30, 2014

Gary Findlay
Executive Director

Michele Nix
Chief Finance Officer

THE BOTTOM LINE
We are here for your benefit.

MOSERS®
WE ARE HERE FOR YOUR BENEFIT.

MISSION

MOSERS exists to advance the financial security of its members.

VISION

We endeavor to:

Exceed customer expectations

Educate stakeholders

Ensure sound investment practices

Encourage responsible funding of the plan through a commitment to

Excellence Always.

VALUES

Quality

Respect

Integrity

Openness

Accountability

Introductory Section

THE BOTTOM LINE

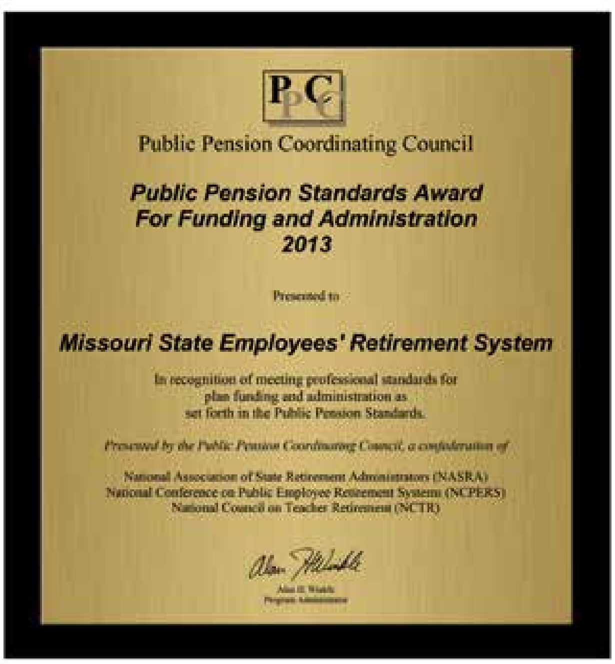
MOSERS' annual cost per active member and annuitant is $76.

Introductory Section

Professional Awards

Certificate of Achievement for Excellence in Financial Reporting

MOSERS' *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2013, was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA). This was the 25th consecutive year that MOSERS has received this prestigious award. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report (CAFR). The CAFR must satisfy generally accepted accounting principles, applicable legal requirements and GFOA reporting standards.



Public Pension Standards Award

MOSERS received the Public Pension Standards Award from the Public Pension Coordinating Council (PPCC) in 2013, in recognition of meeting professional standards for plan design and administration as set forth in the Public Pension Standards. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

Letter of Transmittal

Missouri State Employees' Retirement System
Mailing Address: PO Box 209, Jefferson City, MO 65102-0209
Phone: (573) 632-6100 • (800) 827-1063 | Fax: (573) 632-6103
MO Relay: 7-1-1 (Voice) • (800) 735-2966 (TTY)
Website: *www.mosers.org* | Email: *mosers@mosers.org*
Visit us at 907 Wildwood Drive, Jefferson City, MO

MOSERS®
WE ARE HERE FOR YOUR BENEFIT.

October 17, 2014

The Board of Trustees
Missouri State Employees' Retirement System
907 Wildwood Drive
Jefferson City, MO 65109

Dear Board Members:

It is my pleasure to submit the 2014 *Comprehensive Annual Financial Report* (CAFR) of the Missouri State Employees' Retirement System (MOSERS). The numerical indications of success within this report are the outgrowth of a simple management philosophy based on Peter Drucker's assertion that "what gets measured gets managed and what gets managed and compensated gets done." Measuring performance and results is part of MOSERS' culture. The primary purpose of this report is to look at a point in time snapshot of the last fiscal year, which provides useful measurements of how we got to where we are. The financial results presented in this report are a result of a dedicated staff focused on the cost effective delivery of services to the tens of thousands of present and former state employees who count on MOSERS for key components of their personal financial security.

In FY14, MOSERS' investments generated a return of 19.2% (net of fees) on behalf of our members and Missouri taxpayers. The total fund return exceeded its policy benchmark by 1.5%. The incremental return (actual return vs. policy benchmark) resulted in an additional $117 million for the fund this year.

Report Contents and Structure

This CAFR is designed to satisfy the reporting requirements of state law as stipulated in Sections 104.480, 104.1006, and 105.661 of the Revised Statutes of Missouri (RSMo), as amended. Management has prepared the basic financial statements of MOSERS and is responsible for the integrity and fairness of the information presented. Some amounts included in the financial statements and elsewhere may be based on estimates and judgments. These estimates and judgments were products of the best business practices available. The accounting policies followed in preparing the basic financial statements conform with U.S. generally accepted accounting principles. Financial information presented throughout the CAFR is consistent with that which is displayed in the basic audited financial statements.

Ultimate responsibility for the CAFR and the basic financial statements rests with the board of trustees. The executive director and the rest of the MOSERS staff assist board members in fulfilling their responsibilities. Systems of internal controls and supporting procedures are maintained to provide assurances that transactions are authorized, assets are safeguarded, and proper records are maintained. These controls include standards in the hiring and training of employees, the establishment of an organizational structure, and the communication of policies and guidelines throughout the organization. Internal controls are reviewed through internal audit programs and all internal audit reports are submitted to the board of trustees. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and the valuation of cost and benefits requires estimates and judgments by management.

A request for proposal (RFP) for independent audit services was issued in December 2013, and the contract was awarded to the incumbent auditor, Williams-Keepers, LLC for one year with the option to renew each year for four additional years, with the stipulation that the audit partner be rotated for the upcoming audit in FY14. Williams-Keepers, LLC conducted an independent audit of the basic financial statements in accordance with U.S. generally accepted auditing standards. This audit is described in the *Independent Auditors' Report* on page 19 in the *Financial Section*. Management has provided the external auditors with full and unrestricted access to MOSERS' staff to discuss their audit and related findings, to facilitate independent validation of the integrity of the plan's financial reporting, and verify the adequacy of the internal controls in place.

The *Financial Section* also contains the *Management Discussion and Analysis* that serves as an introduction to and overview of the financial statements. MOSERS is considered a component unit of the state of Missouri for financial reporting purposes and, as such, the financial statements in this report are also included in the *State of Missouri's Comprehensive Annual Financial Report*.

Profile of MOSERS

MOSERS is a body corporate and an instrumentality of the state of Missouri that was established in 1957 by state law, under the management of a board of trustees, for the purpose of providing retirement benefits to most state employees. MOSERS provides for those retirement benefits through pension trust funds, in keeping with the fiduciary responsibilities of the board members and staff.

Subsequent to its creation, MOSERS was further assigned the task of providing most members of the retirement system with term life and long-term disability insurance. MOSERS operates an internal service fund for the state of Missouri and contracts with insurance companies to provide those benefits through insured defined benefit plans. MOSERS maintains membership information on those eligible for the insurance coverage and collects and remits the premiums to the insurance company. Currently, the life and long-term disability insurance plans are insured through a third-party administrator, The Standard insurance company with oversight by MOSERS.

The State of Missouri's Deferred Compensation Plan is accounted for as an internal service fund through the use of ICMA-RC as a third-party record keeper with oversight by MOSERS. Investment options are made available to participants who retain responsibility for the investment of their individual accounts.

Governmental Accounting Standards Board (GASB) Accounting Changes

MOSERS implemented GASB Statement 67 for the year ending June 30, 2014. Statement 67 replaces the requirements of Statement 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contributions Plans*, and Statement 50, *Pension Disclosures*. These requirements affect the financial reporting primarily through enhanced note disclosures and schedules of required supplemental information. These statements do not affect the funding requirements for the defined benefit plan, which continue to be calculated based on annual actuarial valuations in conformity with generally accepted actuarial principles and practices with the Actuarial Standards of Practice issued by the Actuarial Standards Board and applicable statutes.

Strategic Planning

During FY14, the second cycle of strategic planning began for FY15-17. As a result of this planning, five key initiatives were established which include Customer Service, Leadership, Staff, Business Processes and Technology. These initiatives direct staff goals and help identify organizational priorities such as increasing stakeholder engagement, fulfilling organizational legal and ethical responsibilities and optimizing business processes for increased sustainability.

Budgeting

The MOSERS Board of Trustees annually approves the administrative expense budgets for MOSERS' operations and investment departments. MOSERS' governance policy requires an exception report to the board of trustees by the executive director if expenses are expected to exceed budgeted amounts by 10% and to seek board approval in advance for any unscheduled salary increases or staff expansions not included in the budget approved by the board before the beginning of the fiscal year. There were no budget exceptions to report for the year.

Reorganization

During the past year, operations implemented a long-term workforce plan to prepare the organization to face potentially significant changes in the pension industry as well as the sizable number of MOSERS' employees becoming eligible for retirement in the next five years, including turnover in leadership. This plan resulted in the reorganization of the operations' department structure. The previous structure included six functional units: accounting, benefits, communications, executive services, information technology, and records management which was reduced to include three functional units: financial and facilities oversight, information technology and systems development, and benefit administration and education to enhance collaboration and standardization. Other activities were combined into a performance excellence and public relations unit to coordinate quality assurance, strategic planning and communications. This structure was designed to redeploy more resources to key areas and to increase efficiency and data accuracy.

During FY14, the structure of the investment team changed slightly due to the departure of the managing director-alpha strategies and the retirement of the manager of policy and communications. The CIO decided to leave the managing director-alpha strategies position temporarily vacant. As a result, the managers of illiquids alpha strategies and liquid alpha strategies report directly to the CIO. In addition, the manager of policy and communications position was revised and restructured as the investment legal and compliance counsel. This position has the responsibility for ensuring compliance with policy, investment related legal matters, administrative tasks, and other duties as assigned by the CIO.

Risk Management Enhancements

Risk management is a critical component of the investment management program. Charlesworth & Associates, MOSERS' insurance risk management consultant, has reported that insurance coverage has been designed around the risks to which the system is exposed and the philosophy regarding funding of potential loss. The insurance risk management consultant helps us ensure that coverage is consistent with industry standards and that the best rates available are in place. Additionally, it is the consultant's opinion that MOSERS continues to excel in risk management and there have been no asset protection exceptions during the year.

Business Continuity Plan Implementation

MOSERS' business continuity plans are the first line of defense in the aftermath of a business interruption. This year, the Business Continuity Steering Committee (BCSC) upgraded a key restoration maintenance contract as well as software and hardware to increase capabilities that will enable near real time replication of data from MOSERS' servers to the servers housed at the warm-site and reviewed and updated the organization's business continuity plans to include what to do in the event of a pandemic outbreak. During FY14, the BCSC signed a contract with the National Catastrophe Restoration Incorporated (NCRI). NCRI is a total disaster restoration company serving residential, commercial, and government clients nationally and internationally. This added capability reduced the number of individual maintenance contracts and associated administration and is expected to reduce the anticipated time required to recover from a potential business interruption.

Deferred Compensation and College and University Retirement Plans

The MOSERS Board of Trustees is responsible for oversight of the State of Missouri Deferred Compensation Plan (the plan) and the College and University Retirement Plan (CURP), which includes, but is not limited to, contracting with record keepers, plan administrators and investment managers, providing communications and ensuring that the plans are in compliance with federal and state law. Deferred compensation plan participation is voluntary, for eligible members, including college and university employees.

As of June 30, 2014, there were 58,782 participants (37,089 active and 21,693 terminated/retired) in the State of Missouri Deferred Compensation Plan. Of those employees eligible, 59% (includes college and university employees) participate in the plan. Active employee plan participation was up 5.6% from FY13. Total participants (both active and terminated) increased by 3,131 during the fiscal year. Plan assets total $1,809,643,192. ICMA-RC is the plan record keeper.

The plan consists of 13 custom-designed target date investment options, a stable income fund, a MOSERS Investment Portfolio (MIP), a brokerage window, and 26 closed legacy mutual fund options (consisting of a variety of domestic equity, international equity, fixed income, and lifestyle/balanced mutual funds). Assets in the MIP as of June 30, 2014, total $3,457,824 held by 139 investors.

The board also has responsibility for oversight of CURP, a 401(a) defined contribution plan for education employees hired after June 30, 2002, by the regional colleges and universities that participate in MOSERS. The employer contribution rate is 1% of payroll, less than the normal cost of the defined benefit plan for general state employees. TIAA-CREF is responsible for third-party administration and for providing investment products and education to members in the plan. Current plan assets total $56,682,998 with 2,196 participants.

Technology Updates

MOSERS relies on technology to enhance the member experience, increase the efficiency of operations and mitigate risk. In FY14, staff developed an enhanced Online Retirement Application Process (ORAP) available on our secure member site which provides one-stop service for members to obtain information about their benefits and complete the required retirement forms (such as direct deposit, tax withholding, designation of beneficiaries, optional life insurance, authorization to release information and designation of agent).

During the year, a RFP for an imaging system was issued and docSTAR Eclipse was selected to replace the current system. This is expected to reduce annual costs by approximately 50% and increase process efficiency.

Cost Effectiveness Measurement (CEM)

Customer service is a critical element in MOSERS' performance objectives. One of the ways MOSERS measures overall performance is through the Cost Effectiveness Measurement, Inc. (CEM) pension administration benchmarking analysis. CEM evaluated 56 leading pension systems, including systems in the United States, Canada, Scandinavia, United Arab Emirates, and the Netherlands. MOSERS' peer group included 11 U.S. public pension plans that are identified as the most relevant peer group based on membership size and system assets. This year, the CEM results indicated that MOSERS' service ranked number one again in the peer group and the second highest in CEM's global universe. MOSERS' service score was 90, well above the peer median and an average of 78 and the all CEM median of 76. In an effort to keep costs down and enhance our processing time, we continue to implement changes that simplify processes, eliminate programs, and/or provide enhanced security.

CEM measures the cost of service on an annual per participant basis (including active members and benefit recipients). We have 91,000 such participants while the median number within our peer group is 104,000 and the peer average is 116,000. Our cost of $76 per active member and annuitant was equal to the peer median and well below the peer average of $125. In addition, our overall complexity score remains below the peer median (with simplicity being viewed as a positive).

Summary of Financial Information

The following schedule is a comparative summary of the pension trust funds' additions and deductions for the years ended June 30, 2014, and June 30, 2013.

Pension Trust Funds

	Year Ended June 30, 2014	Year Ended June 30, 2013
Additions	$1,881,671,722	$1,108,047,038
Deductions	(717,285,347)	(684,725,496)
Net change	$1,164,386,375	$ 423,321,542

The following schedule is a comparative summary of the revenues and expenses of the *Internal Service Funds* (insurance and deferred compensation activity) for the years ended June 30, 2014, and June 30, 2013.

Internal Service Funds

	Year Ended June 30, 2014	Year Ended June 30, 2013
Operating revenues	$ 31,043,174	$ 29,441,757
Operating expenses	(30,318,997)	(29,767,094)
Nonoperating revenue	11,886	12,075
Net change	$ 736,063	$ (313,262)

Additional financial information can be found in the *Management Discussion and Analysis Report*, the financial statements, and schedules included in the *Financial Section* of this report.

Investments

MOSERS' investments generated a return of 19.2% (net of fees) for FY14. Additional information regarding the investments of the pension trust funds can be found in the *Investment Section* of this report.

In FY14, the transition to an investment portfolio structure that shifts from a return-driven process towards a risk-driven process was completed. The risk-based allocation approach focuses on fundamental economic factors like growth and inflation as well as other factors with expected return values such as credit, carry, and illiquidity which allows a diversified portfolio that performs well in a variety of economic conditions while minimizing overall volatility.

Plan Financial Condition/Funded Ratio

The funding objective of MOSERS' pension trust funds is to meet long-term benefit promises through contributions that remain approximately level as a percent of member payroll over decades of time. Historical information relating to progress in meeting this objective is presented in the *Employers Schedule of Funding Progress* on page 98. During the year ended June 30, 2014, the funded ratio of the Missouri State Employees' Plan, which covers 111,750 participants, increased from 72.7% to 75.1%, primarily the result of the favorable investment market experience in previous years and the strengthening of demographic assumptions. Funding of the Judicial Plan, which covers 941 participants, began on July 1, 1998. During the year ended June 30, 2014, the funded ratio of the Judicial Plan increased from 25.5% to 26.9%. Additional information regarding the financial condition of the pension trust funds can be found in the *Actuarial Section* of this report.

Awards

MOSERS was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA) for its comprehensive annual financial report for the fiscal year ended June 30, 2013. This was the 25th consecutive year that MOSERS has received 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. The report must satisfy 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.

In addition, MOSERS received the Public Pension Coordinating Council (PPCC), Public Pension Standards Award, in recognition of meeting the professional standards for plan design and administration as set forth in the Public Pension Standards. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

GFOA also presented MOSERS with an Award for Outstanding Achievement in Popular Annual Financial Reporting for our summary annual report. This was the 18th year that MOSERS received this award.

These prestigious awards recognize MOSERS for financial and professional standards of excellence. These notable awards can be viewed on page 5.

During FY14, MOSERS received a first place award from the National Association of Government Communicators (NAGC) for design and enhancements to our annual benefit statements provided to active members. It was presented during the 2014 NAGC Blue Pencil and Gold Screen awards dinner on June 12th at the National Press Club in Washington, D.C. The NAGC is a national not-for-profit professional network of federal, state and local government employees who disseminate information within and outside government. NAGC awards underscore the association's high standards of professionalism in public service. The awards competition salutes superior communications efforts of government agencies and recognizes the people who create them.

These awards are gratifying to MOSERS' staff and increase MOSERS' stature as an industry leader.

Conclusion

This report is a product of the combined efforts of MOSERS' staff and advisors functioning under the board's leadership. It is intended to provide complete and reliable information that facilitates the management decision making process, serves as a means for determining compliance with legal requirements, and allows for the evaluation of responsible guardianship of system funds. As in the past, MOSERS received an unqualified opinion from our independent auditor on the financial statements included in this report. The opinion of the independent auditor is on page 19.

Copies of this report are provided to the Governor, State Auditor, the Joint Committee on Public Employee Retirement of the General Assembly, and all state agencies that form the link between MOSERS and its members. Their cooperation contributes significantly to the success of MOSERS.

I would like to take this opportunity to express my gratitude to you, the staff, the advisors, and other people who have worked so diligently to assure the continued successful operation of the system. Thank you for assisting the system in our mission of advancing the financial security of our members. Inspiring the confidence of the membership is critical to our success, and with your leadership, we are able to deliver the highest service possible at a reasonable cost to our stakeholders. At the end of the day, we can confidently say that all efforts contribute to the bottom line and "We are here for your benefit."

Respectfully submitted,

Gary Findlay

Gary Findlay

Executive Director

Letter from the Board Chair

Missouri State Employees' Retirement System
Mailing Address: PO Box 209, Jefferson City, MO 65102-0209
Phone: (573) 632-6100 • (800) 827-1063 | Fax: (573) 632-6103
MO Relay: 7-1-1 (Voice) • (800) 735-2966 (TTY)
Website: *www.mosers.org* | Email: *mosers@mosers.org*
Visit us at 907 Wildwood Drive, Jefferson City, MO

MOSERS
WE ARE HERE FOR YOUR BENEFIT.

October 17, 2014

Dear Members:

On behalf of the board of trustees, I am pleased to present the MOSERS *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2014. While the focus of this report is on information related to the financial status of your retirement system, it also highlights other changes that occurred during the year. The *Financial Section* of this report is prepared in accordance with generally accepted accounting principles and includes financial statements that are appropriately attested to by the system's independent auditors.

MOSERS' investments generated a return of 19.2% for FY14, exceeding the total fund policy benchmark by 1.5%. This return, net of all fees and investment expenses, added approximately $117 million in value to the fund during the year relative to the results of the policy return.

Your retirement system continues to achieve high marks in the delivery of customer service to our members. One of the ways operational performance is measured is through the Cost Effectiveness Measurement, Inc. (CEM) pension administration benchmarking analysis. CEM evaluated 56 leading pension systems, including systems in the United States, Canada, Scandinavia, United Arab Emirates, and the Netherlands. MOSERS' peer group included 11 U.S. public pension plans that are identified as our most relevant peer group based on membership size and system assets. This year, the CEM results indicated that MOSERS' service ranked number one again in our peer group and was ranked the second highest in CEM's global universe of 56 plans. Our cost of $76 per active member and annuitant was equal to the peer median and well below the peer average of $125 per member.

I am also pleased to report that the Investment Intelligence Network, an affiliate of *Institutional Investor*, presented the Executive Director of MOSERS with a lifetime achievement award. The presentation announcement, dated April 24, 2014, read, in part, "In the 20 years since Gary Findlay became director, MOSERS' assets have compounded at an annualized rate of 9% net of fees, outperforming the fund's benchmark by 1.2% annually. When compared to other public funds across the country, this performance places MOSERS among the very best." Information regarding this prestigious award can be accessed on MOSERS' website.

During the past year, the board's membership changed with the departure of Senator John Lamping and the addition of Senator Wayne Wallingford. On behalf of the board and staff, I would like to thank Senator Lamping for his hard work and contributions while serving as a trustee to the system. Trustees devote many hours in fulfilling their fiduciary duties and serve with no remuneration.

I wish to thank the entire board for their contributions this year as well as the staff for maintaining the high level of expertise and professionalism required in the pursuit of excellence in all of the activities in which we are involved. Lastly, I wish to express my gratitude to you, our members, for continuing in public service. Your dedication and commitment to providing services to Missouri citizens is greatly appreciated.

In closing, the board of trustees and staff look forward to serving your future needs. If you have any questions regarding this report or any other aspect of MOSERS, please contact us at MOSERS, P.O. Box 209, Jefferson City, Missouri 65102 or call (800) 827-1063. Our website can also be visited at *www.mosers.org*.

Sincerely,

Antwaun Smith

Antwaun Smith, Chair
Board of Trustees

Board of Trustees


Antwaun Smith - Chairman
Governor Appointed Member

Lori Neidel - Vice Chairman
Governor Appointed Member

Senator Joe Keaveny
Senate Appointed Member

Representative Mike Leara
House Appointed Member

Representative Caleb Jones
House Appointed Member





Laura Davis
Elected Active Member

Don Martin
Elected Retired Member

Commissioner Doug Nelson
Office of Administration
Ex-Officio Member

Senator Wayne Wallingford
Senate Appointed Member

State Treasurer Clint Zweifel
Ex-Officio Member

Vacant
Elected Active Member


Administrative Organization

Gary Findlay
Executive Director

Karen Stohlgren
Deputy Executive Director
Chief Operations Officer (COO)

Rick Dahl
Deputy Executive Director
Chief Investment Officer (CIO)

Greg Beck
Chief Auditor

Judy Delaney
Legislative & Policy Coordinator

Jake McMahon
Chief Counsel

Lisa Verslues
Human Resources Coordinator

Stacy Gillmore
Chief Technology Officer

Lori Leeper
Board & Operations Projects Coordinator

Krista Myer
Budget & Quality Assurance Coordinator

Michele Nix
Chief Finance Officer

Pam Palmquist
Chief Benefits Officer

Candy Smith
Communications & Strategic Planning Coordinator

Shannon Davidson
Managing Director Investment Risk & Operations

Omar Davis
Investment Legal & Compliance Counsel

Seth Kelly
Managing Director Beta-Balanced Strategies

Pat Neylon
Manager Liquid Alpha Strategies

Scott Peppard
Manager Illiquid Alpha Strategies

Cindy Rehmeier
Manager Defined Contribution Plans

About MOSERS

Purpose

MOSERS was established September 1, 1957, and is governed by laws of the state of Missouri.

MOSERS provides retirement, survivor, and disability benefits, as well as life insurance and deferred compensation plan management to its members.

MOSERS administers retirement benefits for most state employees, including members of the Missouri General Assembly, elected state officials, and judges. MOSERS is responsible for administering the law in accordance with the expressed intent of the Missouri General Assembly and bears a fiduciary obligation to the state employees who are its members and beneficiaries.

Administration

State law provides that responsibility for the administration of MOSERS is vested in an 11-member board of trustees. The board is comprised of:

- Two members of the Senate appointed by the President Pro Tem of the Senate.
- Two members of the House of Representatives appointed by the Speaker of the House.
- Two members appointed by the Governor.
- The State Treasurer.
- The Commissioner of Administration.
- Three other system members: two active members elected by the active and terminated-vested members, and one retiree elected by the retired members.

The day-to-day management of MOSERS is delegated to the executive director who is appointed by the board and serves at its pleasure. The executive director acts as advisor to the board on all matters pertaining to the system, contracts for professional services, and employs the remaining staff needed to manage the system.

Organization

The executive director, COO, and CIO are responsible for planning, organizing, and administering the operations of the system under the broad policy guidance and direction of the board.

Senior Leaders

The senior leaders provide administrative support by assisting the executive director and chief operations officer in the major legal, operational, and oversight functions of the retirement, benefit, communication programs, and clerical support. Human resources is also represented in this section.

MOSERS' office is divided into five administrative sections that perform specific functions for the system.

Benefit Administration and Education

Staff in the benefit administration and education section are responsible for all member data, benefit verifications and inceptions, as well as contact with the membership regarding the benefit programs administered by MOSERS (retirement, life insurance, and long-term disability). They also conduct educational seminars in 16-plus cities around the state each year and host webinars online to inform members about their MOSERS' benefits.

Financial and Facilities Oversight

Responsibility for all financial records of the programs administered by MOSERS, including the preparation of financial and statistical reports and purchasing functions for MOSERS lies within the financial and facilities oversight section. They interface with the investment consultant, internal investment managers, Office of Administration accounting, State of Missouri employers, life insurance companies, actuaries, banks, and the IRS. They are also responsible for all billing, payment processing and balancing of member and employer contributions. This section provides payroll, mail services, imaging, records management and general building maintenance.

Information Technology and Systems Development

The information technology and systems development section provides computer and technical design support for MOSERS' data processing activities. This team is responsible for developing and maintaining the automated systems that are used to administer the plan. They are also responsible for the document imaging system, network, unified communication system and personal computers. Information technology and the performance excellence and public relations are jointly responsible for MOSERS' website.

Investments

The investments staff provides investment management and consulting services to the system. Primary functions include managing assets internally, selecting external managers for portions of the portfolio, researching and implementing portfolio allocation shifts and rebalancing, providing technical advice, serving as a liaison to the investment community, and informing and advising the board and executive director on financial, economic, and political developments which may affect the system. The investments staff works closely with external investment consultants, legal counsel and the executive director.

Performance Excellence and Public Relations

- **Budget and Quality Assurance** - The responsibilities of this area include annual budget preparation (shared with financial oversight); monitoring of the appropriations process during the annual legislative session; benchmarking; business continuity preparation and planning; and business process mapping and analysis to identify process efficiencies and mitigate risk. They strive to deliver quality products to both internal and external stakeholders, and to provide a systematic examination and improvement of MOSERS' budget and business processes to add value and improve the effectiveness, efficiencies, and adaptability of MOSERS' operations.
- **Communications and Strategic Planning** - Communications and strategic planning staff are responsible for presenting information in clear and concise ways to facilitate effective, well-informed decision-making, planning, and action. They produce materials for members regarding the benefits administered by MOSERS including publications such as newsletters, handbooks, forms, brochures, and the annual report. Additionally, this team works in conjunction with information technology and systems development on electronic materials and tools such as the public, board, secure member, and internal websites. This section coordinates activities and processes for the organization that facilitate strategic thinking, planning, and implementation.

Outside Professional Services

Actuary
- Gabriel, Roeder, Smith & Co.

Auditor
- Williams-Keepers, LLC

Legal Counsel
- Thompson Coburn, LLP
- CT Corporation
- Steptoe & Johnson, LLP

Master Custodian
- Bank of New York Mellon

Investment Management Consultants
- Blackstone Alternative Asset Management, LP
  Hedge Fund Asset Consultant
- Purrington Moody Weil, LLP
  Trading Consultant
- Summit Strategies Group
  General Asset Consultant
- TimberLink Consulting, LLC
  Timberland Consultant

Risk Management Consultant
- Charlesworth & Associates, LC

Third-Party Administrators
- ICMA-RC
  Deferred Compensation Plan
- The Standard
  Disability and Life Insurance
- TIAA-CREF
  College & University Retirement Plan

Securities Lending Advisor
- Deutsche Bank AG, New York Branch

Information Technology Consulting
- Avtex Solutions, Inc.
- Huber & Associates, Inc.
- HyperGen, Inc.
- Qflow Systems, LLC

Human Resources Consulting
- CBIZ Benefits & Insurance Service, Inc.
- Rose International

Investment Risk Management
- MSCI BarraOne

Investment Advisors
- Actis Capital, LLP
- Aeolus Capital
- Alinda Capital Partners, LLC
- Alliance Bernstein Defined Contribution Investments
- American Industrial Partners
- AQR Capital Management, LLC
- Ashmore Investment Management, Ltd.
- Axiom Asia Private Capital
- Axxon Management, Ltda.
- Bayview Asset Management, LLC
- BlackRock Financial Management, Inc.
- Blackstone Alternative Asset Management, LP
- Blackstone Real Estate Advisors
- Blakeney Management, Ltd.
- Brevan Howard Capital Management, Ltd.
- Bridgepoint Capital, Ltd.
- Bridgewater Associates, LP
- Campbell Group, LLC -
  (Formerly The Campbell Group, LLC)
- CarVal Investors, LLC
- Castlelake - (*Formerly TPG)*
- Catalyst Capital Group, Inc.
- Catterton Partners
- Claren Road Asset Management, LLC
- COMAC Capital, LLP
- Cornwall Capital Management, LP
- CQS, Cayman, LP
- Davidson Kempner Capital Management, LLC

Outside Professional Services continued on page 18

Outside Professional Services continued from page 17

- DDJ Capital Management, LLC
- Development Partners International
- Diamondback Capital Management, LLC
- DRI Capital, Inc.
- EIG Global Energy Partners, LLC
- Elliott International Capital Advisors, Inc.
- Eminence Capital
- Empyrean Capital Partners, LP
- Eton Park Capital Management, LP
- Farallon Capital Management, LLC
- Fortress Investment Group, LLC
- Glenview Capital Management, LLC
- Global Forest Partners, LP
- Grantham, Mayo, Van Otterloo & Co., LLC
- Harvest Fund Advisors, LLC
- HBK Investments, LP
- ING Investment Management
- JLL Partners
- King Street Capital Management, LP
- Linden Capital Partners, LLC
- MAST Capital Management, LLC
- Merit Energy Company
- MHR Fund Management, LLC
- Millennium Technology Ventures, LP
- Moon Capital Management, LP
- Nephila Capital, Ltd.
- New Mountain Capital, LLC
- NISA Investment Advisors, LLC
- Oaktree Capital Management, LP
- Pacific Alternative Asset Management Company, LLC
- Perry Capital, LLC
- Pershing Square Capital Management, LP
- Pharo Global Advisors, Ltd.
- Resource Management Service, LLC
- Silchester International Investors
- Silver Creek Capital Management, LLC
- Silver Lake Partners
- Silver Point Capital, LP
- SIRIS Capital Group, LLC
- State Street Global Advisors
- Stepstone Group
- Stone Harbor Investment Partners, LP
- TPG Credit Management, LP
- Veritas Capital Fund Management, LLC
- Viking Global Investors, LP
- Visium Asset Management, LP
- Wellington Management Company, LLP

Financial Section

THE BOTTOM LINE

The retirement fund paid over $700 million in benefits.

Financial Section

Independent Auditors' Report

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The Board of Trustees
Missouri State Employees' Retirement System

We have audited the accompanying financial statements of the pension trust and internal service funds of the Missouri State Employees' Retirement System (MOSERS), a component unit of the State of Missouri, as of and for the year ended June 30, 2014, and the related notes to the financial statements, which collectively comprise the MOSERS' basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit 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 from material misstatement.

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

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the pension trust and internal service funds of MOSERS as of June 30, 2014, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in conformity with U.S. generally accepted accounting principles.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the *Management's Discussion and Analysis* on pages 21-25 and the *Schedule of Changes in Employer Net Pension Liability*, *Schedule of Employer Contributions, Schedule of Annual Money-Weighted Rate of Return on Investments,* and the *Notes to the Schedules of Required Supplementary Information* on pages 49-54 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context.

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

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise MOSERS' basic financial statements. The *Introductory*, *Investment*, *Actuarial* and *Statistical Sections* and the additional information presented on pages 55-62 are presented for purposes of additional analysis and are not a required part of the financial statements.

The additional information presented on pages 55-62 is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with U.S. generally accepted auditing standards. In our opinion, the additional information presented on pages 55-62 is fairly stated in all material respects in relation to the basic financial statements as a whole.

The *Introductory*, *Investment*, *Actuarial* and *Statistical Sections* have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Williams-Keepers LLC

October 17, 2014

Management Discussion and Analysis

The management of the Missouri State Employees' Retirement System (MOSERS or the system) offers readers of the financial statements this narrative overview of the financial activities of MOSERS for the years ended June 30, 2014, and 2013. This narrative is intended to supplement the system's financial statements. Readers are encouraged to consider the information presented here in conjunction with the *Financial Statements* that begin on page 26.

The MOSERS 2014 *Financial Statements*, *Notes to the Financial Statements* and *Required Supplementary Information* (RSI) were prepared in conformity with GASB Statement 67, *Financial Reporting for Pension Plans*. GASB Statement 67 replaces GASB statements 25 and 50 as reporting standards for pension systems.

Highlights of the changes to these financial statements as a result of implementing GASB Statement 67 are as follows:

- GASB Statement 67 only affects reporting requirements and does not prescribe funding methods which could be different. MOSERS will continue to use a funding policy that follows a financing pattern which computes and requires contribution amounts (when expressed as a percentage of active member payroll) to remain approximately level from year to year and from one generation of citizens to the next generation. The actuary is required to use the entry age actuarial cost valuation method in determining the normal cost of system benefits, expressed as a percent of active member payroll for service retirement benefits, disability benefits, survivor benefits and administrative expenses (excluding expenses related to the investment of system assets, all of which are covered by investment return). The contribution amount required to amortize any unfunded accrued liability is expressed as a level percent of active member payroll over a stipulated number of years. The computed contribution rate determined by each annual actuarial valuation consists of the normal cost plus the amortization payment for the unfunded accrued liability, expressed in total as a percent of active member payroll. The required contribution amounts are to be determined by regular actuarial valuations, conducted by the board's actuary.
- *Statement of Net Assets* and *Statements of Changes in Net Assets* have now been retitled as *Statements of Fiduciary Net Position* and *Statements of Changes in Fiduciary Net Position*, respectively.
- GASB Statement 67 classifies MOSERS as a single-employer public pension plan for reporting purposes which includes the state of Missouri as the employer and related component units.
- The discount rate used to calculate the present value of future benefit payments for reporting purposes is based upon the projected plan net position (PNP) using actuarial assumptions about contributions, benefit payments and the long-term rate of return. If the projected PNP is not sufficient to cover projected benefit payments, a blended discount rate is required using both the weighted average of the long-term rate of return and the muni-bond rate for periods after the PNP is exhausted. MOSERS currently uses the long-term discount rate of 8% and expects assets will be sufficient to cover PNP.
- New footnote requirements include the *Target Asset Allocation* including long-term expected real rate of return (Note 3), investments representing 5% or more of MOSERS' fiduciary net position (Note 3), *Employers' Net Pension Liability* (Note 5), *Summary of Actuarial Assumptions* (Note 5), and *Sensitivity of Net Pension Liability to Changes in the Discount Rate* (Note 5).
- New *Required Supplementary Information* beginning on page 49 includes a *Schedule of Changes in Employer Net Pension Liability*, *Schedule of Employer Contributions*, and *Schedule of Annual Money-Weighted Rate of Return on Investments*. Notes to the RSI include significant methods and assumptions used in calculating the actuarially determined contributions.

The basic financial statements contained in this section of the comprehensive annual financial report consist of:

- The *Statements of Fiduciary Net Position* which report the pension trust funds' assets, liabilities, and resulting net position where Assets – Liabilities = Net Position held in trust for pension benefits available at the end of the fiscal year. It is a snapshot of the financial position of the pension trust funds at that specific point in time.
- The *Statements of Changes in Fiduciary Net Position* which summarize the pension trust funds' financial transactions that have occurred during the fiscal year where Additions – Deductions = Net Change in Net Position. It supports the change that has occurred to the prior year's net position on the *Statements of Fiduciary Net Position*.
- The *Statements of Net Position* of the internal service funds is similar to the *Statements of Fiduciary Net Position* in that it is also a snapshot of the financial position of the internal service funds where Net Position + Liabilities = Assets.

- The *Statements of Revenues, Expenses, and Changes in Net Position* of the internal service funds is similar to the *Statements of Changes in Fiduciary Net Position* in that it also reports a summary of the financial activity that occurred over the period of the fiscal year where Revenues – Expenses = Net Revenue and supports the change to the prior year's net position.
- The *Statements of Cash Flows* of the internal service funds report the financial transactions of the fiscal year of the internal service funds on a cash basis. It is similar to the *Statements of Revenues, Expenses and Changes in Net Position*; however, the focus of this statement is on the change to cash balances with accrued income and expense items eliminated.
- The *Notes to the Financial Statements* are an integral part of the above financial statements and include additional information not readily evident in the statements themselves.
- The required supplementary *Management Discussion and Analysis* information, the *Required Supplementary Information*, and *Additional Financial Information* following the *Notes to the Financial Statements* provide detailed historical information considered useful in evaluating the condition of the plans administered by MOSERS.

Financial Highlights

MOSERS' overall pension fund financial condition improved during the fiscal year ended June 30, 2014 (FY14). Pension fund net position increased by $1,164,386,375 during the fiscal year, primarily as result of an increase in investment values and their associated income. The investments of the pension trust funds generated a 19.2% return (net of fees) for the year, up from the prior year's return of 10.4%.

The MSEP experienced an increase in its funded status from 72.7% to 75.1% and the Judicial Plan experienced an increase in its funded status from 25.5% to 26.9%. The nominal investment return remained unchanged from FY13 at 8% and the assumptions for wage inflation and price inflation were 3% and 2.5%, respectively. In June 2013, the board approved a change to reduce the amortization period from an open 30 years to a closed 30 years beginning July 1, 2014, and will be reduced by one year for each subsequent annual valuation until the period reaches one year. This amortization period will be reexamined in conjunction with the 2030 actuarial valuation to determine if it should be reduced below 15 years or changed to an open 15 years. MOSERS uses a smoothing method to determine the actuarial value of assets using the investment gains or losses, relative to what would have been earned at the assumed rate on the actuarial value of assets, and combine that amount with any previously unrecognized investment gains or losses. One-third of that total amount would then be recognized in the current year with two-thirds deferred for future recognition. In no event would the actuarial value of assets as of the valuation date be more than 125% or less than 80% of the market value of assets. Contributions beginning July 2014, will be 16.97%, the rate determined by the June 30, 2013, actuarial valuation until the actuarial funding ratio of the MOSERS plan is at least 80%.

In FY14, the internal service fund's net position increased by $989,498. The goals of the internal service funds are to maintain the funds at a level that enables it to meet its obligations of contracting the premiums for the life and long-term disability insurance benefits for state employees; maintain the membership data necessary to track the premiums due from the state and its employees and payable to the insurance carrier; and manage the state employees deferred compensation program.

The following schedules present *Summary Comparative Financial Statements* of the pension trust funds and internal service funds for FY14 and FY13. For each schedule there is a brief summary of the significant changes noted in those schedules.

Pension Trust Funds

Summary Comparative Statements of Fiduciary Net Position

The largest components of the net position of the pension trust funds are the investments, cash and short-term investments, obligations under repo agreements, and securities lending collateral.

The increase in the fair value of investments is primarily attributable to the favorable market conditions experienced during FY14, as evidenced by an increase in MOSERS' total investment return from 10.4% last year to 19.2% this year. Detailed information regarding MOSERS' investment portfolio is included in the *Investment Section* of this report.

Investment income receivable and investment purchases payable increased as a result of the timing of investment purchases.

The decrease in securities lending collateral is primarily attributable to lower lendable assets in the lending portfolio at fiscal year-end. As of fiscal year-end, approximately 2% of the collateral received has been invested in asset-backed bonds, down slightly from 3% the prior year. The invested collateral went from $7 million above the liability at the end of last fiscal year to $1 million below the liability in FY14. The reduction in collateral from the prior fiscal year was the result of MOSERS withdrawing over $11 million in realized gains and income from the collateral account.

Cash and short-term investments increased due to multiple factors including the timing of investment funding and additional cash necessary to fund the derivative investments and obligations under repo agreements within the new investment strategy from a return-driven investment process towards a risk-driven process.

Summary Comparative Statements of Changes in Fiduciary Net Position

The slight increase in contributions received is primarily attributable to an increase in the contribution rate for the general employee group from 14.45% to 16.98% of payroll.

The increase in investment income in FY14 from FY13 is attributable to the generally favorable market conditions experienced by the investments of the fund. The decrease in securities lending income is primarily due to less lendable assets in the lending portfolio during the fiscal year. Margins were also lower than the previous fiscal year resulting in lower income generation. The *Investment Section* of this report contains additional information regarding investments and securities lending activity.

The total benefit payments increased as a result of an increase in the number of benefit recipients plus cost-of-living adjustments provided to existing benefit recipients. Detailed schedules of these changes can be viewed on pages 102-107 of the *Actuarial Section* of this report.

Service transfers are dependent on the number of members electing to transfer their service out of MOSERS. Refunds are dependent on the number of members of the MSEP 2011 tier who have terminated employment and are eligible to request a refund, and members prior to September 1, 1972 who have contributions remaining in the system. In FY14, service transfers and refunds increased due to terminated nonvested MSEP 2011 members choosing to receive a refund. In FY14, 77 members elected to transfer their service out of MOSERS.

Pension Trust Funds

Summary Comparative Statements of Fiduciary Net Position

	As of June 30, 2014	As of June 30, 2013	Amount of Change	Percentage Change
Cash and short-term investments	$ 2,781,208,806	$1,202,548,184	$1,578,660,622	131.28%
Receivables	92,320,761	46,416,125	45,904,636	98.90
Investments	9,208,420,646	6,922,334,141	2,286,086,505	33.02
Invested securities lending collateral	36,196,014	461,766,766	(425,570,752)	(92.16)
Capital assets	3,754,756	3,554,938	199,818	5.62
Other assets	47,564	105,201	(57,637)	(54.79)
Total assets	12,121,948,547	8,636,725,355	3,485,223,192	40.35
Administrative expense payables	1,443,657	2,337,560	(893,903)	(38.24)
Investment purchase payables	456,411,500	11,485,382	444,926,118	3,873.85
Investment income payable	0	49,527,001	(49,527,001)	(100.00)
Securities lending collateral	37,195,140	454,384,699	(417,189,559)	(91.81)
Other liabilities	14,780,144	11,934,319	2,845,825	23.85
Obligations under repo agreements	2,339,232,799	0	2,339,232,799	100.00
MOSERS investment portfolio liability (MIP)	3,457,824	2,015,286	1,442,538	71.58
Total liabilities	2,852,521,064	531,684,247	2,320,836,817	436.51
Net positions restricted for pensions	$ 9,269,427,483	$8,105,041,108	$1,164,386,375	14.37

Pension Trust Funds

Summary Comparative Statements of Changes in Fiduciary Net Position

	Year Ended June 30, 2014	Year Ended June 30, 2013	Amount of Change	Percentage Change
Contributions	$ 375,116,980	$ 318,818,502	$ 56,298,478	17.66%
Investment income - investing activities	1,505,566,826	787,712,220	717,854,606	91.13
Investment income - securities lending activities	530,974	1,020,380	(489,406)	(47.96)
Miscellaneous income	456,942	495,936	(38,994)	(7.86)
Total additions	1,881,671,722	1,108,047,038	773,624,684	69.82
Benefits	706,504,036	674,511,179	31,992,857	4.74
Service transfers and refunds	3,338,696	2,534,006	804,690	31.76
Administrative expenses	7,442,615	7,680,311	(237,696)	(3.09)
Total deductions	717,285,347	684,725,496	32,559,851	4.76
Net increase	1,164,386,375	423,321,542	741,064,833	175.06
Net position beginning of year	8,105,041,108	7,681,719,566	423,321,542	5.51
Net positions restricted for pensions	$9,269,427,483	$8,105,041,108	$1,164,386,375	14.37

Internal Service Funds

Summary Comparative Statements of Net Position Analysis

The increase in premiums receivable is attributable to normal fluctuations in the month-end balance of life and long-term disability insurance premiums receivable during the year, which are dependent on the number of members participating and amount of their coverage.

The increase in investments is attributable to normal fluctuations in the investment in overnight repurchase agreements of the funds held pending transmission to the life and long-term disability insurance company. MOSERS internal service fund received a $1,000,000 reimbursement from the State of Missouri Deferred Compensation Plan's third party record keeper to cover administrative expenses. These funds are also included in overnight repurchase agreements.

The increase in premiums payable is attributable to normal fluctuations in the month-end balances of premiums payable for the year, similar to the fluctuations of the premiums receivable.

Other liabilities decreased primarily as a result of the timing of reimbursements due to the pension trust funds for the internal service fund's portion of shared expenses which had not been transferred at year end.

Summary Comparative Statements of Revenues, Expenses, and Changes in Net Position Analysis

Premium receipts and premium disbursements increased slightly due to normal fluctuations in the amount of optional life insurance coverage selected by state employees.

The increase in deferred compensation receipts and disbursements is attributable to a $1,000,000 reimbursement to cover administrative expenses to the internal service fund at MOSERS from the State of Missouri Deferred Compensation Plan's third-party record keeper which collects deferred compensation contributions directly from employers. As of June 30, 2014, there were 58,782 participants (both active and terminated), which is an increase of 3,131 from FY13. The state of Missouri has not contributed an employer match since March 2010.

Administrative expenses decreased primarily as a result of the decrease in equipment maintenance allocated to Life and LTD *Internal Service Funds* and a decrease in attorney fees directly related to the Deferred Compensation *Internal Service Funds*.

Summary Comparative Statements of Cash Flows Analysis

The increase in cash flows from operating activities is primarily attributable to an increase in cash payments received from employers and members over that of FY13 of $962,300 and decreased payments of $296,832 for refunds to members and payments to suppliers for goods and services.

The decrease in cash flows from noncapital financing activities is primarily attributable to a decrease in the amount of life and long-term disability premium refund checks that remained outstanding at year end.

The decrease in cash flows from investing activities is attributable to several factors including the increase in outflows for net purchase and maturities of overnight repurchase agreements of $1,241,404, the decrease in cash received from investment income of $189 and the increase in the purchase of capital assets for the deferred compensation plan of $5,081.

Request for Information

This financial report is designed to provide a general overview of the system's finances for all those interested in the system. Questions concerning any of the information provided in this report or request for additional information should be addressed to MOSERS at P.O. Box 209, Jefferson City, MO 65102 or by email at *mosers@mosers.org*.

Internal Service Funds
Summary Comparative Statements of Net Position

	As of June 30, 2014	As of June 30, 2013	Amount of Change	Percentage Change
Premiums receivable	$ 986,177	$ 970,466	$ 15,711	1.62%
Investments	4,225,655	3,258,256	967,399	29.69
Fixed assets net of accumulated depreciation	6,125	3,617	2,508	69.34
Leasehold improvements	3,880	0	3,880	100.00
Total assets	5,221,837	4,232,339	989,498	23.29
Premiums payable	3,910,384	3,639,910	270,474	7.43
Other liabilities	97,990	115,029	(17,039)	(14.81)
Total liabilities	4,008,374	3,754,939	253,435	6.75
Unrestricted net position	1,213,463	477,400	736,063	154.18
Total liabilities and net position	$5,221,837	$4,232,339	$989,498	23.38

Internal Service Funds
Summary Comparative Statements of Revenues, Expenses, and Changes in Net Position

	Year Ended June 30, 2014	Year Ended June 30, 2013	Amount of Change	Percentage Change
Premium receipts	$29,563,054	$28,961,637	$ 601,417	2.08%
Deferred compensation receipts	1,000,000	0	1,000,000	100.00
Miscellaneous income	480,120	480,120	0	0.00
Total operating revenue	31,043,174	29,441,757	1,601,417	5.44
Premium disbursements	29,544,110	28,930,950	613,160	2.12
Premium refunds	18,942	30,687	(11,745)	(38.27)
Administrative expenses	755,945	805,457	(49,512)	(6.15)
Total operating expenses	30,318,997	29,767,094	551,903	1.85
Net operating income (loss)	724,177	(325,337)	1,049,514	322.59
Investment income	11,886	12,075	(189)	(1.57)
Net revenues over expenses	736,063	(313,262)	1,049,325	334.97
Net position beginning of year	477,400	790,662	(313,262)	(39.62)
Net position end of year	$ 1,213,463	$ 477,400	$ 736,063	154.18

Internal Service Funds
Summary Comparative Statements of Cash Flows

	Year Ended June 30, 2014	Year Ended June 30, 2013	Amount of Change	Percentage Change
Cash flows from operating activities	$ 969,760	$(289,369)	$ 1,259,129	435.13%
Cash flows from noncapital financing activities	(6,870)	5,585	(12,455)	(223.01)
Cash flows from investing activities	(962,890)	283,784	(1,246,674)	(439.30)
Net change in cash	0	0	0	
Cash balances beginning of year	0	0	0	
Cash balances end of year	$ 0	$ 0	$ 0	

Pension Trust Funds

Statements of Fiduciary Net Position

As of June 30, 2014

	MSEP	Judicial Plan	Total
Assets			
Cash and short-term investments	$ 2,741,712,550	$ 39,496,256	$ 2,781,208,806
Receivables			
State contributions	14,295,941	1,229,973	15,525,914
Investment sales	952,018	13,714	965,732
Investment income receivable	74,662,781	1,075,569	75,738,350
Other	89,476	1,289	90,765
Total receivables	90,000,216	2,320,545	92,320,761
Investments at fair value			
U.S. treasury securities	2,630,155,349	37,889,197	2,668,044,546
Corporate bonds	957,634	13,795	971,429
Government bonds & gov't mortgage-backed securities	47,519,935	684,557	48,204,492
Common stock	439,429,856	6,330,289	445,760,145
Limited partnerships	5,109,035,751	73,599,175	5,182,634,926
Real estate investment trust	9,844	142	9,986
Collateralized mortgage obligations	1	0	1
Foreign currency	58,960	849	59,809
International equities	845,534,445	12,180,505	857,714,950
U.S. dollar-denominated international corporate bonds	4,949,067	71,295	5,020,362
Total investments	9,077,650,842	130,769,804	9,208,420,646
Invested securities lending collateral	35,681,990	514,024	36,196,014
Capital assets			
Land	263,490	3,796	267,286
Building and building improvements	4,471,514	64,415	4,535,929
Furniture, fixtures, and equipment	1,280,978	18,453	1,299,431
Software	262,292	3,779	266,071
Total capital assets	6,278,274	90,443	6,368,717
Accumulated depreciation	(2,576,840)	(37,121)	(2,613,961)
Net capital assets	3,701,434	53,322	3,754,756
Prepaid expenses and other	46,889	675	47,564
Total assets	11,948,793,921	173,154,626	12,121,948,547
Liabilities			
Administrative expense payable	1,423,155	20,502	1,443,657
Investment purchases payable	449,929,950	6,481,550	456,411,500
Securities lending collateral	36,666,928	528,212	37,195,140
Investment incentive fees payable	13,314,183	191,800	13,505,983
Employee vacation and overtime liability	1,256,066	18,095	1,274,161
Obligations under repo agreements	2,306,013,094	33,219,705	2,339,232,799
MOSERS investment portfolio liability (MIP)	3,408,719	49,105	3,457,824
Total liabilities	2,812,012,095	40,508,969	2,852,521,064
Net position			
Net position, investment in capital assets	3,701,434	53,322	3,754,756
Unrestricted net position	9,133,080,392	132,592,335	9,265,672,727
Net positions restricted for pensions	$ 9,136,781,826	$132,645,657	$ 9,269,427,483

See accompanying *Notes to the Financial Statements.*

Pension Trust Funds

Statements of Changes in Fiduciary Net Position

For Year Ended June 30, 2014

	MSEP	Judicial Plan	Total
Additions			
Contributions			
State contributions	$ 326,370,336	$ 29,264,877	$ 355,635,213
Employee contributions	14,025,328	294,810	14,320,138
Member purchases of service credit	2,909,423	0	2,909,423
Service transfer contributions	2,252,206	0	2,252,206
Total contributions	345,557,293	29,559,687	375,116,980
Investment income			
From investing activities			
Investing activity income:			
Net appreciation in fair value of investments	1,300,741,151	18,738,071	1,319,479,222
Interest	40,920,932	589,494	41,510,426
Dividends	7,855,708	113,167	7,968,875
Swap income (loss)	232,040,105	3,342,697	235,382,802
Other	58,193,879	838,323	59,032,202
Total investing activity income	1,639,751,775	23,621,752	1,663,373,527
Investing activity expenses:			
Management fees	(149,439,209)	(2,152,775)	(151,591,984)
Custody fees	(348,822)	(5,025)	(353,847)
Consultant fees	(1,037,854)	(14,951)	(1,052,805)
Performance measurement fees	(455,842)	(6,567)	(462,409)
Internal investment activity expenses	(4,283,943)	(61,713)	(4,345,656)
Total investing activity expenses	(155,565,670)	(2,241,031)	(157,806,701)
Net income from investing activities	1,484,186,105	21,380,721	1,505,566,826
From securities lending activities			
Securities lending income	430,556	6,202	436,758
Securities lending expenses:			
Borrower rebates	287,954	4,148	292,102
Management fees	(195,076)	(2,810)	(197,886)
Total securities lending activities expenses	92,878	1,338	94,216
Net income from securities lending activities	523,434	7,540	530,974
Total net investment income	1,484,709,539	21,388,261	1,506,097,800
Miscellaneous income	450,453	6,489	456,942
Total additions	1,830,717,285	50,954,437	1,881,671,722
Deductions			
Benefits	610,498,130	29,406,625	639,904,755
BackDROP & lump sum benefits	66,599,281	0	66,599,281
Service transfer payments	1,916,840	0	1,916,840
Contribution refunds	1,421,856	0	1,421,856
Administrative expenses	7,336,922	105,693	7,442,615
Total deductions	687,773,029	29,512,318	717,285,347
Net increase in net position	1,142,944,256	21,442,119	1,164,386,375
Net positions restricted for pensions:			
Beginning of year	7,993,837,570	111,203,538	8,105,041,108
End of year	$9,136,781,826	$132,645,657	$9,269,427,483

See accompanying *Notes to the Financial Statements.*

Internal Service Funds

Statements of Net Position

As of June 30, 2014

	Life & LTD	Deferred Compensation	Total
Assets			
Premiums receivable	$ 986,177	$ 0	$ 986,177
Due to (due from)	(186,969)	186,969	0
Investments at fair value	4,225,655	0	4,225,655
Fixed assets	0	11,269	11,269
Accumulated depreciation	0	(5,144)	(5,144)
Leasehold improvements	0	3,880	3,880
Total assets	$5,024,863	$196,974	$5,221,837
Liabilities and net position			
Liabilities			
Premiums payable	$3,910,384	$ 0	$3,910,384
Checks outstanding net of deposits	1,341	0	1,341
Other	96,649	0	96,649
Total liabilities	4,008,374	0	4,008,374
Unrestricted net position	1,016,489	196,974	1,213,463
Total liabilities and net position	$5,024,863	$196,974	$5,221,837

See accompanying *Notes to the Financial Statements.*

Internal Service Funds

Statements of Revenues, Expenses, and Changes in Net Position

For Year Ended June 30, 2014

	Life & LTD	Deferred Compensation	Total
Operating revenues			
Premium receipts	$29,563,054	$ 0	$29,563,054
Deferred compensation reimbursement	1,000,000	0	1,000,000
Miscellaneous income	480,120	0	480,120
Total operating revenues	31,043,174	0	31,043,174
Operating expenses			
Premium disbursements	29,544,110	0	29,544,110
Premium refunds	18,942	0	18,942
Administrative expenses	435,830	320,115	755,945
Total operating expenses	29,998,882	320,115	30,318,997
Operating revenues (under) over operating expenses	1,044,292	(320,115)	724,177
Nonoperating revenues			
Investment income	11,886	0	11,886
Net revenues (under) over expenses	1,056,178	(320,115)	736,063
Net position (deficit) July 1, 2013	(39,689)	517,089	477,400
Net position June 30, 2014	$ 1,016,489	$ 196,974	$ 1,213,463

See accompanying *Notes to the Financial Statements.*

Internal Service Funds

Statements of Cash Flows

Year Ended June 30, 2014

	Life & LTD	Deferred Compensation	Total
Cash flows from operating activities			
Cash received from employer and members	$ 31,028,990	$ 0	$ 31,028,990
Payments to outside carriers	(29,273,634)	0	(29,273,634)
Refunds of premiums to members	(18,942)	0	(18,942)
Cash payments to employees for services	(230,713)	(181,110)	(411,823)
Cash payments to other suppliers of goods and services	(543,318)	188,487	(354,831)
Net cash provided by operating activities	962,383	7,377	969,760
Cash flows from noncapital financing activities			
Implicit funding of checks outstanding net of deposits	1,341	0	1,341
Implicit repayment of prior years checks outstanding net of deposits	(8,211)	0	(8,211)
Net cash (used) by noncapital financing activities	(6,870)	0	(6,870)
Cash flows from investing activities			
Purchase of investment securities	(1,003,168,594)	0	(1,003,168,594)
Proceeds from sale and maturities of investment securities	1,002,201,195	0	1,002,201,195
Cash received from investment income	11,886	0	11,886
Purchase of capital assets	0	(7,377)	(7,377)
Net cash (used) by investing activities	(955,513)	(7,377)	(962,890)
Net increase (decrease) in cash	0	0	0
Cash balances June 30, 2013	0	0	0
Cash balances June 30, 2014	$ 0	$ 0	$ 0
Reconciliation of operating revenues under operating expenses to net cash provided by operating activities			
Operating revenues over (under) operating expenses	$ 1,044,292	$ (320,115)	$ 724,177
Adjustments to reconcile operating revenues over (under) operating expenses to net cash provided (used) by operating activities			
Depreciation expense	0	989	989
Change in assets and liabilities:			
Decrease (increase) in operational accounts receivable	(342,216)	326,503	(15,713)
Increase in operational accounts payable	260,307	0	260,307
Total adjustments	(81,909)	327,492	245,583
Net cash provided by operating activities	$ 962,383	$ 7,377	$ 969,760

See accompanying *Notes to the Financial Statements*.

Notes to the Financial Statements

Year Ended June 30, 2014

(1) Plan Descriptions and Contribution Information

Missouri State Employees' Plan (MSEP)

The MSEP is a single-employer, defined benefit public employee retirement plan with two benefit structures known as the MSEP (closed plan) and MSEP 2000, which are administered by the Missouri State Employees' Retirement System (MOSERS) in accordance with Sections 104.010 and 104.312 to 104.1215 of the Revised Statutes of Missouri (RSMo). As established under Section 104.320, RSMo, MOSERS is a body corporate and an instrumentality of the state. In the system are vested the powers and duties specified in Sections 104.010 and 104.312 to 104.1215, 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 of Sections 104.010 and 104.312 to 104.1215, RSMo.

Responsibility for the operation and administration of the system is vested in the 11-member MOSERS Board of Trustees as defined by state law. Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the MSEP is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as a pension trust fund.

The board intends to follow a financing pattern which computes and requires contribution amounts which, expressed as a percent of active member payroll, will remain approximately level from year-to-year and from one generation of citizens to the next generation. For the year ended June 30, 2014, the employer contribution rate was 16.98% of covered payroll.

Complete recognition of the year-to-year swings in the market value of system assets would produce contribution rate changes that would run counter to the "approximately level" goal. A common actuarial practice referred to as asset smoothing is used to address that issue. As a result of smoothing, investment gains or losses, relative to what would have been earned at the assumed rate on the actuarial value of assets are added to any previously unrecognized gains or losses and one-third of that total amount was recognized beginning in FY14, with two-thirds deferred for future recognition. In no event may the actuarial value of assets as of the valuation date be more than 125% or less than 80% of the market value of assets on that date.

For the actuarial valuation, the nominal investment return assumption is 8% and wage inflation and price inflation are 3% and 2.5%, respectively. See the *Actuarial Section* for all actuarial assumptions used.

At any point in time, the ratio of actuarial to market value of assets will be more or less than the market value but, if the smoothing method is prudent and properly constructed, those values will converge over time. As of June 30, 2014, and 2013, the ratio of actuarial to market value of assets was 95% and 101%, respectively for the MSEP.

Generally, all full-time state employees hired before July 2000, who were not covered under another state-sponsored retirement plan, are eligible for membership in the MSEP (closed plan). Full-time state employees hired after July 2000, and before January 2011, are eligible for membership in the MSEP 2000. Employees hired for the first time on or after January 2011 are eligible for membership in the MSEP 2011 tier of the MSEP 2000. MOSERS participates as an employer in the MSEP and MSEP 2000. The MSEP provides retirement, survivor, and disability benefits.

As of the June 30, 2014 valuation, membership* in the MSEP consisted of the following:

Retirees and beneficiaries currently receiving benefits		41,000
Terminated employees entitled to, but not yet receiving benefits		18,933
Active		
Vested	34,905	
Nonvested	15,716	50,621
Total membership		110,554

* *Excludes 199 members on leave of absence and 997 members on long-term disability.*

MSEP (closed plan)

General state employees are fully vested for benefits upon receiving 5 years of credited service. Under the MSEP (closed plan), general employees may retire with full benefits upon the earliest of attaining:

- Age 65 and active with 4 years of service;
- Age 65 with 5 years of service;
- Age 60 with 15 years of service; or
- Age 48 with age and service equaling 80 or more - "Rule of 80."

General employees may retire early at age 55 with at least 10 years of service with reduced benefits. The base benefit in the general employee plan is equal to 1.6% multiplied by the final average pay multiplied by years of credited service.

For members hired prior to August 28, 1997, cost-of-living adjustments (COLAs) are provided annually based on 80% of the percentage increase in the average consumer price index (CPI) from one year to the next, with a minimum rate of 4% and maximum rate of 5% until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated.

For members hired on or after August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Qualified, terminated-vested members may make a one-time election to receive the present value of their benefit in a lump sum payment. A member must have terminated with at least 5, but less than 10 years of service, be less than age 60 and with a benefit present value of less than $10,000.

Contributions are determined through annual actuarial valuations. Contributions beginning July 2014, will be 16.97%, the rate determined by the June 30, 2013, actuarial valuation until the actuarial funding ratio of the MOSERS plan is at least 80%. Administration of the MSEP is financed through contributions to this plan from the state of Missouri and investment earnings.

MSEP 2000

General state employees are fully vested for benefits upon receiving 5 years of credited service. Under the MSEP 2000, general employees may retire with full benefits upon the earliest of attaining:

- Age 62 with 5 years of service; or
- Age 48 with age and service equaling 80 or more - "Rule of 80."

General employees may retire early at age 57 with at least 5 years of service with reduced benefits. The base benefit in the general employee plan is equal to 1.7% multiplied by final average pay multiplied by years of credited service.

For those retiring under "Rule of 80," an additional temporary benefit equivalent to 0.8% multiplied by final average pay multiplied by years of credited service is payable until age 62.

COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Contributions are determined through annual actuarial valuations. Contributions beginning July 2014, will be 16.97%, the rate determined by the June 30, 2013, actuarial valuation until the actuarial funding ratio of the MOSERS plan is at least 80%. Administration of the MSEP 2000 is financed through contributions to this plan from the state of Missouri and investment earnings.

The state of Missouri is required to make all contributions to the MSEP. Prior to September 1, 1972, contributions by members were required. Accumulated employee contributions made prior to that time, plus interest through August 28, 1997, are refundable to the member or designated beneficiaries upon request.

MSEP 2011

On July 19, 2010, an additional tier of the MSEP 2000 defined benefit plan was signed into law for members of the Missouri State Employees' Retirement System (MOSERS). This tier (MSEP 2011) includes all new employees first hired on or after January 1, 2011.

Under the MSEP 2011, general employees may retire with full benefits upon the earliest of attaining:

- Age 67 with 10 years of service; or
- Age 55 with age and service equaling 90 or more - "Rule of 90."

General employees may retire early at age 62 with at least 10 years of service with reduced benefits. The base benefit in the general employee plan is equal to 1.7% multiplied by final average pay multiplied by years of credited service.

For those retiring under "Rule of 90," an additional temporary benefit equivalent to 0.8% multiplied by final average pay multiplied by years of credited service is payable until age 62.

COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Member contributions are 4% of pay. Employer contributions are determined through annual actuarial valuations. Contributions beginning July 2014, will be 16.97%, the rate determined by the June 30, 2013, actuarial valuation until the actuarial funding ratio of the MOSERS plan is at least 80%. Administration of the MSEP 2011 is financed through contributions to this plan from the member, state of Missouri, and investment earnings.

The MSEP 2011 does not impact employees employed by the state prior to January 1, 2011.

For a more detailed summary of benefits for general employees, legislators, and elected officials under the MSEP, MSEP 2000, and MSEP 2011 tier, refer to the *Summary of Plan Provisions* in the *Actuarial Section* of this report.

Judicial Plan

The Judicial Plan is a single-employer, public employee retirement plan administered in accordance with Sections 476.445 to 476.690, RSMo. Responsibility for the operation and administration of the Judicial Plan is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the Judicial Plan is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as a pension trust fund.

Judges and commissioners of the supreme court or the court of appeals, judges of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, justices of the peace, or commissioners or deputy commissioners of the circuit court appointed after February 29, 1972, commissioners of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo, commissioners of the drug court pursuant to Section 478.466, RSMo, or commissioners of the family court are eligible for membership in the Judicial Plan. The Judicial Plan provides retirement, survivor, and disability benefits. Members are immediately eligible for benefits.

As of the June 30, 2014 valuation, membership* in the Judicial Plan consisted of the following:

Retirees and beneficiaries currently receiving benefits		511
Terminated employees entitled to, but not yet receiving benefits		24
Active		
Vested	405	
Nonvested	0	405
Total membership		940

* *Excludes 1 member on long-term disability.*

Under the Judicial Plan, members may retire with full benefits upon the earliest of attaining:

- Age 62 with 12 years of service;
- Age 60 with 15 years of service; or
- Age 55 with 20 years of service.

Employees may retire early at age 62 with less than 12 years of service or age 60 with less than 15 years of service with a reduced benefit that is based upon years of service relative to 12 or 15 years.

In the Judicial Plan, the base benefit for members with 12 or more years of service is equivalent to 50% of compensation on the highest court served.

For members hired prior to August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, 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. For members hired on or after August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Qualified, terminated-vested members may make a one-time election to receive the present value of their benefit in a lump sum payment. A member must have terminated with at least 5, but less than 10 years of service, be less than age 60, with a benefit present value of less than $10,000.

Funding of the Judicial Plan on an actuarial basis began on July 1, 1998. Contributions are determined through annual actuarial valuations. Contributions beginning July 2014, will be 58.45%, the rate determined by the June 30, 2013, actuarial valuation until the actuarial funding ratio of the Judicial plan is at least 80%. The state of Missouri is required to make all contributions to the Judicial Plan. For the year ended June 30, 2014, the employer contribution rate was 59.69% of covered payroll. Administration of the Judicial Plan is financed through contributions to this plan from the state of Missouri and investment earnings.

Judicial 2011 Tier

On July 19, 2010, an additional tier of the MSEP 2000 defined benefit plan was signed into law for members of the Judicial Plan. This tier (Judicial Plan 2011) includes all new judicial members first hired on or after January 1, 2011.

Under the Judicial Plan 2011, members may retire with full benefits upon the earliest of attaining:

- Age 67 with 12 years of service; or
- Age 62 with 20 years of service; or

Judicial members may retire early at age 67 with less than 12 years of service with reduced benefits, or age 62 with less than 20 years of service with a reduced benefit based on years of service.

For the actuarial valuation of the Judicial Plan, the nominal investment return assumption is 8% and wage inflation and price inflation are 3% and 2.5%, respectively. See the *Actuarial Section* for all actuarial assumptions used.

In the Judicial Plan, the base benefit for members with 12 or more years of service is equivalent to 50% of compensation on the highest court served. For a more detailed summary of benefits for members of the Judicial Plan, refer to the *Summary of Plan Provisions* in the *Actuarial Section* of this report.

Missouri State Insured Defined Benefit Insurance Plan

The Missouri State Insured Defined Benefit Insurance Plan is accounted for as an internal service fund of the state of Missouri and is administered through The Standard, which is a third-party administrator with oversight by MOSERS. It provides basic life insurance in an amount equal to one times annual salary while actively employed (with a $15,000 minimum) to eligible members of the MSEP, MSEP 2000 (except employees of the Missouri Department of Conservation and certain state colleges and universities), MSEP 2011, Judicial Plan, and certain members of the Public School Retirement System.

The plan also provides duty-related death benefits, optional life insurance for active employees and retirees who are eligible for basic coverage, and a long-term disability plan for certain eligible members. For a more detailed description of insurance benefits, refer to page 119 in the *Actuarial Section* of this report.

Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the Missouri State Insured Defined Benefit Insurance Plan is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as an internal service fund. Administration of the Missouri State Insured Defined Benefit Insurance Plan is financed through contributions from the state of Missouri.

State of Missouri Deferred Compensation Plan

The State of Missouri Deferred Compensation Plan is accounted for as an internal service fund. MOSERS uses ICMA-RC as an external provider for record keeping.

Record keeping of individual accounts and management of investment options are paid from charges to the participants and investment option reimbursement arrangements. Participants in the plan manage individual accounts by choosing investment options from the available fund lineup. MOSERS' role is to oversee the plan, choose external providers and investment options, and develop communication to plan participants. The State of Missouri Deferred Compensation Plan receives reimbursements from the plan's investment option managers which are used to cover plan administration costs and a portion of participant fees. In FY14, a total of $2,538,184 was collected from a combination of $1,849,381 in investment option reimbursements and $688,803 in participant fees.

Effective July 1, 2012, new permanent full-time and part-time employees are automatically enrolled at 1% of pay into the State of Missouri Deferred Compensation Plan.

The State of Missouri Deferred Compensation Plan offers participants the ability to purchase units of MOSERS investments as an investment option. Participants who choose this investment option own units of MOSERS investments, but not specific assets. As of June 30, 2014, participants invested $3,457,824 in the MOSERS Investment Portfolio (MIP) fund investment option.

View audited financial statements for the State of Missouri Deferred Compensation Plan at *www.mosers.org*.

(2) Summary of Significant Accounting Policies and Plan Asset Matters

Basis of Accounting

The financial statements of the MSEP, the Judicial Plan, the Missouri State Insured Defined Benefit Insurance Plan and State of Missouri Deferred Compensation Plan were prepared using the accrual basis of accounting. The accompanying financial statements are prepared in accordance with accounting principles generally accepted in the U.S. that apply to governmental accounting for fiduciary funds including the Governmental Accounting Standards Board (GASB) Statements numbers 34, 37, 38, 40, 43, 44, 51, 53, 63 and 67.

GASB Statement 67 was adopted during the year ended June 30, 2014, addressing accounting and financial reporting requirements for pension plans. GASB Statement 67 requires changes in presentation of the financial statements, *Notes to the Financial Statements*, and *Required Supplementary Information*. Significant changes include an actuarial calculation of the total and net pension liability as defined in the accounting standard. Comprehensive footnote disclosures regarding the pension liability, the sensitivity of the net pension liability to the discount rate, and increased investment activity disclosures are also included. The implementation of this standard did not significantly impact the accounting for accounts receivable and investment balances. The total employers net pension liability is presented in Note 5. Related GASB Statement 67 disclosures can be found in the *Required Supplementary Information* on page 49.

Contributions are recognized as revenues when due, pursuant to statutory requirements. Benefits and refunds are recognized when due and payable and expenses are recorded when the corresponding liabilities are incurred regardless of when contributions are received or payment is made. The direct method of reporting cash flows is used.

Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the reported amounts of net position held in trust for pension benefits at June 30, 2014. Actual results could differ from those estimates.

Method Used to Value Investments

Section 104.440, RSMo allows the board of trustees to invest the trust fund assets in accordance with the prudent person rule. Investments of the pension trust funds and the internal service funds are reported on the basis of fair market value. MOSERS utilizes investments for the purpose of allowing participants in the State of Missouri Deferred Compensation Plan the option to invest in units of MOSERS investment portfolio (MIP). For financial reporting purposes, investments throughout this CAFR are reported in whole and include .04% or $3,457,824 of the units invested in the MIP by Deferred Compensation participants. The schedule on page 44 provides a summary of the fair values of the investments as reported on the *Statements of Fiduciary Net Position* of the pension trust funds and *Statements of Net Position* of the internal service funds. Fair values for the equity real estate investments are based on appraisals. Fair values of the limited partnership investments are based on valuations of the underlying companies of the limited partnerships as reported by the general partner. Certain limited partnerships reflect values and related performance on a quarter lag basis due to the nature of those investments and the time it takes to value them. Fair value of the commingled funds is determined based on the underlying asset values. The remaining assets are primarily valued by the system's master custodian, BNY Mellon, using the last trade price information supplied by various pricing data vendors.

(3) Cash and Investments

Cash

Custodial credit risk for cash deposits and investments is the risk that, in the event of a bank failure, the system and plan deposits may not be returned to them. The board adopted the following policy on June 18, 2009:

The executive director shall require that banks managing demand deposit accounts for any retirement plan associated with MOSERS (MOSERS' defined benefit plan and the deferred compensation plan/state incentive compensation plan) to hold, at minimum, collateral security in either MOSERS' name or the State of Missouri Deferred Compensation Plan and in an amount equal to or more than the amount on deposit that exceeds the Federal Deposit Insurance Corporation (FDIC) insured amount. The types of collateral security shall be included on a list maintained by the State Treasurer's office in accordance with Section 30.270 RSMo, but in no case may a bank pledge collateral that does not specifically allow MOSERS to release the collateral or pledge collateral that represents securities of the pledging banks.

Cash balances represent both demand deposit accounts held at the bank and investment cash on deposit with the investment custodian. To maximize investment income, the float caused by outstanding checks is invested in an internally managed short-term investment account, thus causing a possible negative book balance. Negative book balances are reflected in the liabilities' section of the *Statements of Net Position* of the internal service funds and included in the cash and short-term investments on the *Statements of Fiduciary Net Position* of the pension trust funds.

The table below is a schedule of the aggregate book and bank balances of all cash accounts.

Aggregate Book and Bank Balances

	Cash Balances	
	Book	Bank/Investment Custodian
Pension trust funds - investment custodian	$534,344,597	$534,344,597
Pension trust funds - demand deposits	(10,593,294)	18,469
Internal service fund - insurance plan demand deposits	(1,341)	32

Under the repurchase agreement, the bank does not have the right to substitute other appropriate securities. Central Trust Bank pledged the following securities to MOSERS on June 30, 2014, as collateral for overnight repurchase agreements:

- $4,250,000 Federal Home Loan Mortgage Corp.
  Maturity date: 04/15/2031 | Fair value: $4,257,310
- $1,945,816 Small Business Association Pool
  Maturity date: 05/25/2036 | Fair value: $2,108,194
- $3,516,456 Small Business Association Pool
  Maturity date: 09/25/2038 | Fair value: $3,801,860
- $13,070,000 Federal National Mortgage Assoc.
  Maturity date: 12/25/2039 | Fair value: $13,188,166
- $439,338 Small Business Association Pool
  Maturity date: 10/25/2017 | Fair value: $454,687
- $348,359 Small Business Association Pool
  Maturity date: 09/25/2020 | Fair value: $373,361
- $6,500,000 Federal Home Loan Mortgage Corp.
  Maturity date: 10/15/2021 | Fair value: $6,600,100
- $2,961,510 Small Business Association Pool
  Maturity date: 11/25/2023 | Fair value: $3,090,217
- $1,494,012 Small Business Association Pool
  Maturity date: 07/25/2029 | Fair value: $1,577,154

Investments

Investment Policy

In 2013, MOSERS began transitioning to a portfolio that shifts from a return-driven process towards a risk-driven process using an allocation approach that focuses on fundamental economic factors such as growth and inflation as well as other factors with expected return values such as credit, carry, and illiquidity.

MOSERS' policy with respect to the allocation of invested assets is established and may be amended by the board of trustees majority vote. The board's guiding principles with respect to the investment of MOSERS' assets are to preserve the long-term corpus of the fund, maximize total return within prudent risk parameters, and act in the exclusive interest of the members of the system. The board has developed a risk-weighted policy allocation that is designed to achieve the long term required return objectives of the system, given certain risk constraints. The current asset allocation reflects a diversified portfolio, which will perform well in a variety of economic conditions and will help reduce the portfolio's overall volatility.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate rates of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in MOSERS' target asset allocation as of June 30, 2014, are summarized in the table below.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of an investment in a single-issuer. Issuer concentration limits are established in individual portfolio guidelines that generally do not allow a single issuer to be greater than 5% of the portfolio's market value. As of fiscal year end, there is no single issuer exposure, exclusive of investments issued or explicitly guaranteed by the U.S. government, within MOSERS' portfolio that comprises 5% or more of the overall portfolio or MOSERS' fiduciary net position. Therefore, there is no concentration of credit risk to report.

Rate of Return

The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 19.25% for the year ended June 30, 2014. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for changing amounts actually invested.

Target Asset Allocation

	Policy Allocation	Long-Term Expected Real Rate of Return*	Weighted Average Long-Term Expected Real Rate of Return
Beta-balanced portfolio	76.6%	5.7%	4.4%
Illiquids portfolio **	19.2	7.3	1.4
Old portfolio***	4.2	6.0	0.2
	100.0%		6.0%

* *Represents best estimates of geometric rates of return for each major asset class included.*

** *Illiquid portfolio upper limit of 27.5% of capital, no new commitments past 23%.*

*** *As of June 30, 2014, MOSERS was in the final stages of transitioning from a portfolio allocation consisting of 45% public equities, 30% public debt, and 25% alternative investments (old portfolio) to a new target allocation of 80% beta-balanced and 20% illiquids.*

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to MOSERS. As of June 30, 2014, MOSERS' fixed income assets that are not government guaranteed represented 33.4% of the fixed income security. In preparing this report, credit risk associated with all fixed income holdings including collateral for repurchase agreements and securities lending collateral has been included. The tables below summarize MOSERS' fixed income security exposure levels and credit qualities.

As a matter of practice, there are no overarching limitations for credit risk exposures within the overall fixed income portfolio. Each individual portfolio within fixed income is managed in accordance with operational guidelines that are specific as to permissible credit quality ranges, exposure levels within individual quality tiers, and average credit quality.

Credit risk for derivative instruments held by the system results from counterparty risk assumed by MOSERS. This is essentially the risk that the counterparty to a MOSERS' transaction will be unable to meet its obligation. Information regarding MOSERS' credit risk related to derivatives can be viewed in the derivatives disclosures on page 40 of these notes.

Policies related to credit risk pertaining to MOSERS' securities lending program are found under the securities lending disclosures found on page 40 of these notes.

Average Credit Quality and Exposure Levels of Nongovernment Guaranteed Securities

Fixed Income Security Type	Market Value June 30, 2014	Percent of all Fixed Income Assets	Weighted Average Credit Quality	Ratings Dispersion Requiring Further Disclosure
Collateralized mortgage obligations	$ 1,117,305	0.0%	Agency	See below
U.S. government agencies	457,264,425	9.1	Agency	See below
Non-U.S. sovereign	53,203,047	1.1	BBB+	See below
Asset-backed securities	11,322,873	0.2	AA+	See below
Corporate bonds	62,588,547	1.2	AA+	See below
Bank loans	215,524	0.0	Not rated	See below
Bank deposits	450,101,251	9.0	FDIC insured	None
Repurchase agreements	315,000,000	6.3	Not rated	None
Pooled investments	324,876,067	6.5	AAA	None
Total nongov't guaranteed securities	$1,675,689,039	33.4%		
Total fixed income securities	$5,012,238,001			

Ratings Dispersion Detail Market Value

Credit Rating Level	Collateralized Mortgage Obligations	Non-U.S. Sovereign	Asset-Backed Securities	Corporate Bonds	U.S. Agencies	Bank Loans
Agency	$1,117,305		$10,573,410	$50,768,804	$457,264,425	
AAA		$ 1,075,074				
A		20,503,930		10,435,042		
BBB		31,110,227		758,209		
BB		513,816				
B				626,492		
CC			749,463			
Not rated						$215,524
	$1,117,305	$53,203,047	$11,322,873	$62,588,547	$457,264,425	$215,524

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed by using the effective duration or option adjusted methodology. It is widely used in the management of fixed income assets by quantifying the risk of interest rate changes. This methodology takes into account optionality on bonds and scales the risk of price changes on bonds depending upon the degree of change in rates and the slope of the yield curve. Within the investment policy, operational guidelines specify the degree of interest rate risk taken within the system's fixed income portfolios, with the exception of some portfolios in which credit risk is the predominant factor and also controlled by specific guidelines. It is believed that the reporting of effective duration found in the tables below quantifies to the fullest extent possible the interest rate risk of the system's fixed income securities.

MOSERS invests in mortgage-backed securities, which are reported at fair value in the *Statement of Fiduciary Net Position* of the pension trust funds. Such securities have embedded within them the risk of being called, whereby the issuer has the option to keep the debt outstanding in rising interest rate environments or repay the debt in declining interest rate environments, a factor that advantages the issuer. MOSERS invests in these securities to diversify the portfolio with high quality and liquid investments, which capture a significant yield premium that is intended to compensate for the call risk. This risk is incorporated within the effective duration calculation used in the interest rate risk analysis.

Effective Duration of Fixed Income Assets by Security Type

Fixed Income Security Type	Market Value June 30, 2014	Percent of all Fixed Income Assets	Weighted Average Effective Duration (Years)	Interest Rate Risk Requiring Further Disclosure
U.S. treasuries	$2,977,250,641	59.4%	4.9	See below
U.S. government agencies	457,264,425	9.1	0.1	None
Collateralized mortgage obligations	1,117,305	0.0	0.1	None
Non-U.S. sovereign	53,203,047	1.1	4.9	None
Asset-backed securities	11,322,873	0.2	0.8	None
Corporate bonds	62,588,547	1.2	0.3	None
Bank loans	215,524	0.0	0.3	None
Bank deposits	450,101,251	9.0	0.0	None
Repurchase agreements	674,298,320	13.5	0.0	None
Pooled investments	324,876,067	6.5	0.0	None
	$5,012,238,001	100.0%	3.0	

Effective Duration Analysis of U.S. Treasuries

Maturity	Market Value June 30, 2014	Average Effective Duration of the Security Type	Contribution to Effective Duration
Less than 1 year to maturity	$ 212,217,310	0.5	0.0
1- to 10-year maturities	2,760,110,891	5.2	4.8
Long coupon treasuries	4,922,440	9.4	0.0
	$2,977,250,641		4.8

Repurchase Agreements

Tri-party repurchase agreements (repos) are a secured loan with the collateral held at a custodian bank. In a tri-party repo transaction, MOSERS transfers cash to a financial institution and the financial institution transfers securities to the custodian bank. Simultaneously, the financial institution promises to repay the loan in the future plus interest in exchange for the return of the securities.

Reverse repurchase agreements (reverse repos) are used to convert securities into cash. In a reverse repo transaction, MOSERS transfers securities that are owned in the portfolio to a financial institution and the financial institution transfers cash to MOSERS. Simultaneously, MOSERS promises to repay the loan in the future plus interest in exchange for the return of the securities.

Typical collateral for repos and reverse repos include treasury securities, agency securities, mortgage-backed securities, investment grade corporate bonds, commercial paper, and common stock. Repos and reverse repos are typically done for an overnight term; however, they can be done for a longer term. MOSERS enters into repo transactions to earn interest on short-term funds and enters into reverse repos to finance the purchase of additional securities.

The yield earned by MOSERS on the repo transactions ranged from 0.05% to 0.36% and had maturities of one day to 35 days. The yield earned by the counterparties on the reverse repo transactions ranged from 0.15% to 0.24% and had maturities of one month to one year. The maturities of the investments made with reverse repo proceeds generally have maturities of one to 10 years.

In repo transactions, MOSERS may have credit risk if the counterparty fails to repay the loan and the value of the securities held as collateral fall below the loan balance. To minimize this risk, MOSERS requires the financial institution to send collateral with a market value greater than the value of the loan and revalues the collateral on a daily basis. As of fiscal year end, MOSERS held approximately $32 million of counterparty collateral in excess to the repo balance.

In reverse repo transactions, MOSERS may be subject to credit risk if the counterparty fails to return the securities and the value of the securities held as collateral rise above the loan balance. To minimize this risk, MOSERS sends the minimum amount of collateral required by the financial institution and requires the financial institution to revalue the collateral and return excess collateral on a daily basis. As of fiscal year end, counterparties held approximately $17 million of MOSERS collateral in excess to the reverse repo balance.

The tables below summarize MOSERS' exposure for repo and reverse repo transactions.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. MOSERS' currency risk exposures, or exchange rate risk, primarily reside within MOSERS' international equity investment holdings. MOSERS' implementation policy allows external managers to decide what action to take regarding their respective portfolio's foreign currency exposures using currency forward contracts. MOSERS' exposure to foreign currency risk in U.S. dollars as of June 30, 2014, is highlighted in the table on the following page.

Repurchase Agreements by Collateral Type

Collateral Type	Market Value of Collateral June 30, 2014	Market Value of Repurchase Agreements June 30, 2014	Excess Collateral	Percent Over Collateralized
U.S. treasuries	$366,481,752	$359,295,835	$ 7,185,917	2.0%
Investment grade corporates	26,250,000	25,000,000	1,250,000	5.0
Common stock	313,200,000	290,000,000	23,200,000	8.0
Accrued interest	0	2,485	(2,485)	N/A
	$705,931,752	$674,298,320	$31,633,432	4.7%

Reverse Repurchase Agreements by Collateral Type

Collateral Type	Market Value of Collateral June 30, 2014	Market Value of Repurchase Agreements June 30, 2014	Excess Collateral	Percent Over Collateralized
U.S. treasuries	$2,357,753,494	$2,339,232,799	$18,520,695	0.8%
Accrued interest	0	1,487,909	(1,487,909)	N/A
	$2,357,753,494	$2,340,720,708	$17,032,786	0.8%

Currency Exposures by Asset Class

Currency	Cash & Cash Equivalents	Equities	Fixed Income	Alternatives	Total
Argentine Peso	$ 79	$ 3			$ 82
Brazilian Real	(5,461)	25,768,060	$ 4,770,696		30,533,295
Chilean Peso	42,340	2,927,014	52,200		3,021,554
Czech Koruna	9,741	622,805			632,546
Danish Krone		6,347,051			6,347,051
Egyptian Pound	27	515,892			515,919
Euro	920,938	210,593,718		$100,754,738	312,269,394
Hong Kong Dollar	142,842	99,398,604			99,541,446
Hungrian Forint	17,071	540,671	500,559		1,058,301
Indian Rupee	215,118	16,946,293			17,161,411
Indonesian Rupiah	105,293	6,805,722	5,837,604		12,748,619
Israeli Shekel	1	16			17
Japanese Yen		231,081,421			231,081,421
Malaysian Ringgit	141,474	11,235,157	5,814,824		17,191,455
Mexican Peso	(34,079)	15,447,317	7,736,117		23,149,355
Peruvian Nuevo Sol	6				6
Philippine Peso	22,863	2,442,112			2,464,975
Polish Zloty	(189)	4,292,359	7,029,085		11,321,255
Russian Ruble		460,168	4,687,152		5,147,320
Singapore Dollar		27,460,948			27,460,948
South African Rand	96,160	19,556,249	4,507,787		24,160,196
South Korean Won	415,301	52,468,316	2,070,078		54,953,695
Swedish Krona		7,633,413			7,633,413
Swiss Franc	24,328	97,665,501			97,689,829
Taiwanese New Dollar	52,330	39,839,413			39,891,743
Thai Baht		15,742,196	1,329,113		17,071,309
Turkish Lira	3,860	4,467,190	6,246,939		10,717,989
British Pound Sterling	227	139,049,981			139,050,208
Colombian Peso	68,110	1,857,800	3,941,584		5,867,494
Venezuelan Bolivar	21,726				21,726
Moroccan Dirham	794				794
Norwegian Krone		6,354,537			6,354,537
Romanian New Leu			1,196,353		1,196,353
Qatari Riyal	8,593	953,167			961,760
United Arab Emirates Dirham	13,172	1,016,061			1,029,233
	$2,282,665	$1,049,489,155	$55,720,091	$100,754,738	$1,208,246,649

Derivatives

Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates, or financial indexes. They include futures contracts, swap contracts, options contracts, and forward foreign currency exchange. The tables on the following page summarize the various contracts in the portfolio as of June 30, 2014.

While the board has no formal policy specific to derivatives, the MOSERS investment implementation program, through its external managers, holds investments in futures contracts, swap contracts, and forward foreign currency exchange. MOSERS enters into these certain derivative instruments as investments primarily to enhance the performance and reduce the volatility of its portfolio. It enters swaps and futures contracts to gain exposure to certain markets and to manage interest rate risk and enters into forward foreign exchange contracts primarily to hedge foreign currency exposure.

The notional values associated with these derivative instruments are generally not recorded in the financial statements; however, the amounts for the exposure on these instruments are recorded in the *Statements of Fiduciary Net Position* and the total changes in fair value for the year are included as investment income in the *Statements of Changes in Fiduciary Net Position*. For the year ended June 30, 2014, the change in fair value in the swap contracts resulted in $235.4 million of investment income. The change in fair value in the futures contracts resulted in $271.3 million of investment income and the change in fair value of the foreign exchange contracts resulted in a loss of $5.3 million of investment income. MOSERS does not anticipate additional significant market risk from the swap arrangements.

MOSERS could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. MOSERS' investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. MOSERS anticipates that the counterparties will be able to satisfy their obligations under the contracts. Investments in limited partnerships and commingled funds may include derivatives that are not shown in the derivative totals.

Limited Partnerships

Many of MOSERS' alternative investments are organized in the form of limited partnerships. In these partnerships, the manager is a general partner, and the limited partners are the investors. Investments in limited partnerships are accounted for using the equity method of accounting, and their earnings or losses for the period are included in investment income using the equity method.

As of June 30, 2014, MOSERS had contracts with over 101 limited partnerships across various types of alternative investments. These partnerships collectively represent 56% of the total fund. A *Schedule of Limited Partnerships* follows on pages 42-43.

Securities Lending Program

The board of trustees' investment policy permits the pension trust funds to participate in a securities lending program. Fixed income, international equity and domestic equity securities of the pension trust funds are loaned to participating brokers who provide collateral in the form of cash, U.S. Treasury or government agency securities, or letters of credit issued by approved banks. Collateral must be provided in the amount of 102% of market value for domestic loans and 105% of market value for international loans. MOSERS does not have the authority to pledge or sell collateral securities, without borrower default. Securities on loan at fiscal year end for cash collateral and on loan for noncash collateral are presented in the schedule on page 44. On June 30, 2014, MOSERS had no credit risk exposure to borrowers because the collateral amounts received exceeded amounts out on loan.

As of June 30, 2014, Deutsche Bank AG, New York branch, served as the agent for the fixed income, domestic equity and international equity securities lending programs. In this capacity, MOSERS reduces credit risk by allowing Deutsche Bank to lend these securities to a diverse group of dealers on behalf of MOSERS. Indemnification against dealer default is provided by Deutsche Bank AG, an "A-rated" bank. With each of MOSERS' securities lending programs, the majority of loans are open loans and can be terminated on demand by either MOSERS or the borrower. Net income from the three lending programs is split on a 90/10 basis between MOSERS and Deutsche Bank, respectively.

Daily monitoring of securities that are on loan ensures proper collateralization levels and mitigates counterparty risk. Cash collateral from all three programs is commingled and invested in a separately managed short-term investment account for MOSERS. This cash collateral account is managed by Deutsche Bank. On June 30, 2014, the cash collateral account had a market value of $37,195,140 and a weighted average maturity of one day. For all of the securities lending operational services, the custodian is paid an annual fee, which is netted out against MOSERS' earnings in the securities lending programs managed by Deutsche Bank.

Futures Contracts

Futures Contract	2014 Expiration Date	Long/Short	Notional/Fair Value	Exposure
Equity index futures	September	Long	$ 144,551,065	$ (783,196)
Fixed income futures	September	Long	2,694,877,000	9,828,477
Commodity futures	August	Long	41,907,400	63,400
Total			$2,881,335,465	$9,108,681

Foreign Currency Forward Contracts at June 30, 2014

Currency	Net Notional Long/(Short)	Exposure
Colombian Peso	$ 830,437	$ 14,361
Euro	(133,757,175)	(934,245)
Hungarian Forint	481,489	(3,866)
Indonesian Rupiah	290,100	(2,900)
Malaysian Ringgit	911,307	9,062
Mexican Peso	149,600	311
Nigerian Naira	603,849	6,475
Philippine Peso	598,096	1,689
Russian Ruble	0	(9,655)
Turkish Lira	(2,936)	(3)
U.S. Dollar	128,976,462	0
Foreign currency forward contract asset (liability)	$ (918,771)	$ (918,771)

Swap Contracts

Total Return Swaps - Equity

Counterparty Credit Rating	Notional Value	Exposure
A+	$ 195,367,117	$ 7,697,461
A	(38,093,177)	(1,767,368)
A-	31,640,285	1,158,418
Total	$ 188,914,225	$ 7,088,511

Total Return Swaps - Commodities

Counterparty Credit Rating	Notional Value	Exposure
A+	$ 914,201,957	$15,783,498
A-	358,253,131	7,233,908
Total	$1,272,455,088	$23,017,406

Total Return Swaps - Fixed Income

Counterparty Credit Rating	Notional Value	Exposure
A	$ 837,297,293	$ 0
A-	1,182,491,555	15,402,161
Total	$2,019,788,848	$15,402,161

Interest Rate Swaps

Counterparty Credit Rating	Notional Value	Exposure
A	$ (10,000,000)	$ (119,395)
Total	$ (10,000,000)	$ (119,395)

Schedule of Limited Partnerships

Partnership Name	Style	Investments at Fair Value as of June 30, 2014
Actis Emerging Markets III	Emerging markets	$ 43,518,282
Actis Global IV	Emerging markets	8,713,034
Aeolus Property Catastrophe Spire Fund, LP	Reinsurance	100,204,399
African Development Partners I, LLC	Emerging markets	46,300,004
African Development Partners II, LLC	Emerging markets	7,483,961
Alinda Infrastructure Fund I, LP	Infrastructure	32,600,599
American Industrial Partners Capital Fund V, LP	Corporate buyout	20,752,190
AQR Absolute Return Institutional Fund, LP	Multi-strategy	60,184,914
AQR DELTA Sapphire Fund, LP	Multi-strategy	270,075,944
AQR Global Risk Premium Fund IV, LP	Beta-balanced	443,824,249
Axiom Asia Private Capital Fund II, LP	Emerging markets	29,890,488
Axiom Asia Private Capital Fund III, LP	Emerging markets	10,436,559
Axxon Brazil Private Equity Fund II B, LP	Emerging markets	14,919,470
Bayview Opportunity Domestic, LP - high yield	Distressed real estate debt	14,834,343
Bayview Opportunity Domestic IIIb, LP - high yield	Distressed real estate debt	53,655,050
Blackstone Real Estate Partners IV	Active real estate	44,422,382
Blackstone Real Estate Partners V	Active real estate	102,606,925
Blackstone Real Estate Partners VI	Active real estate	113,028,702
Blackstone Real Estate Partners VII	Active real estate	62,675,829
Blackstone Topaz Fund, LP	Multi-strategy - fund-of-funds	409,311,076
Blakeney Onyx, LP	Emerging markets	77,713,850
Brevan Howard, LP	Global macro	85,118,296
Bridgepoint Europe III A, LP	Corporate buyout	17,601,012
Bridgepoint Europe IV B, LP	Corporate buyout	35,076,333
Bridgewater All Weather, LLC	Beta-balanced	489,238,333
Bridgewater Associates - Diamond Ridge Fund, LLC	Global macro	96,862,067
Campbell Timber Fund II A, LP	Timberland	48,405,522
CarVal Investors CVI Global Value Fund A, LP	Distressed real estate private debt	22,550,000
CarVal Investors CVI Global Value Fund A, LP	Distressed real estate debt	22,550,000
Castlelake Aviation II, LP	Special situations	32,708,298
Catalyst Fund Limited Partnership III	Canadian distressed debt	43,574,879
Catalyst Fund Limited Partnership IV	Canadian distressed debt	9,030,086
Catterton Partners V, LP	Corporate buyout	16,404,300
Catterton Partners VI, LP	Corporate buyout	23,230,571
Catterton Partners VII, LP	Corporate buyout	6,765,994
Claren Road Credit Partners, LP	Long/short - credit	112,468,500
Cornwall Domestic, LP	Multi-strategy	61,964,633
Davidson Kempner Institutional Partners, LP	Event driven	88,080,819
DDJ Capital Management - B IV Capital Partners, LP	Distressed debt	2,319,037
Diamondback Partners, LP	Long/short - equity	388,297
DRI Capital - LSRC	Intellectual property	24,062,415
DRI Capital - LSRC II	Intellectual property	5,455,624
EIG Energy Fund XIV, LP	Energy - mezzanine	27,208,151
EIG Energy Fund XV, LP	Energy - mezzanine	39,944,035
EIG Energy Fund XVI, LP	Energy - mezzanine	4,135,343
EIG Energy Co. - Investment I	Energy - infrastructure	5,674,699
Elliott International, Ltd.	Multi-strategy	105,301,809
Eminence Fund, Ltd.	Long/short - equity	97,699,667
Empyrean Capital Fund, LP	Event driven	61,594,643
Eton Park Fund, LP	Multi-strategy	22,776,415
Farallon Capital Institutional Partners, LP	Multi-strategy	4,766,703

Schedule of Limited Partnerships continued on page 43

Schedule of Limited Partnerships continued from page 42

Partnership Name	Style	Investments at Fair Value as of June 30, 2014
Garnet Sky Investors Company, Ltd.	Timberland	119,208,232
Gateway Energy & Resource Holdings, LLC	Energy - diversified	29,695,500
Glenview Institutional Partners, LP	Long/short - equity	672,996
Glenview Capital Opportunity Fund, LP	Long/short - equity	38,178,673
Global Forest Partners GTI7 Institutional Investors Company, Ltd.	Timberland	89,158,655
HBK Offshore Fund, Ltd.	Multi-strategy	100,106,488
JLL Partners Fund V, LP	Corporate buyout	15,518,024
JLL Partners Fund VI, LP	Corporate buyout	43,582,326
King Street Capital, LP	Credit driven	5,168,041
King Street Capital, Ltd.	Credit driven	918,162
Linden Capital Partners II, LP	Corporate buyout	13,580,412
Linden Capital Partners Co. - Investment, LP	Corporate buyout	4,411,765
MAST Credit Opportunities I, LP	Credit driven	81,127,373
Merit Energy Partners F - II, LP	Energy - oil & gas	8,717,679
MHR Institutional Partners IIA, LP	Distressed debt	50,154,662
MHR Institutional Partners III, LP	Distressed debt	56,272,374
MHR Institutional Partners IV, LP	Distressed debt	814,154
Millennium Technology Value Partners II, LP	Direct secondaries	11,773,747
Millennium Technology Value Partners Co. - Investment	Direct secondaries	3,792,771
Moon Capital Global Equity Offshore Fund, Ltd.	Long/short - equity	845,235
Nephila Triton Fund, LP	Reinsurance	55,171,205
New Mountain Partners III, LP	Corporate buyout	48,592,798
Oaktree European Credit Opportunities Fund, LP	European loans	1,777,389
OCM Opportunities Fund IVb, LP	Distressed debt	208,670
OCM Opportunities Fund VIIb, LP	Distressed debt	23,361,650
OCM Opportunities Fund VIIIb, LP	Distressed debt	31,119,277
OCM Real Estate Opportunities Fund III, LP	Active real estate	6,976,821
OCM/GFI Power Opportunities Fund II, LP	Corporate buyout	2,289,439
OCM Power Opportunities Fund III, LP	Corporate buyout	17,316,328
PAAMCO - Newport Pioneer, LLC	Multi-strategy - fund-of-funds	970,505
Perry Partners, LP	Multi-strategy	50,222
Pershing Square, LP	Long/short - equity	1,943,779
Pharo Macro Fund, Ltd.	Global macro	123,842,580
Resource Management Service - Wildwood Timberlands, LLC	Timberland	132,012,221
Silver Creek Special Opportunities Fund I, LP	Special situations - fund-of-funds	20,186,428
Silver Creek Special Opportunities Fund II, LP	Special situations - fund-of-funds	25,827,828
Silver Lake Partners II, LP	Corporate buyout	13,949,571
Silver Point Capital Fund, LP	Credit driven	1,756,845
SIRIS Partners II, LP	Corporate buyout	6,961,571
Standard Investment Research Hedged Equity Fund, LP	Equity market neutral	56,457,205
StepStone Capital Buyout Fund I, LP	Corporate buyout - fund-of-funds	13,960,197
StepStone Capital Buyout Fund II, LP	Corporate buyout - fund-of-funds	20,635,804
StepStone Opportunities Fund II, LP	Private equity co-investment	3,160,950
The Veritas Capital Fund III, LP	Corporate buyout	39,184,022
The Veritas Capital Fund IV, LP	Corporate buyout	38,688,382
TPG - Axon Partners (Offshore), Ltd.	Long/short - equity	1,993,733
Viking Global Equities III, Ltd.	Long/short - equity	142,384,682
Visium Balanced Fund, LP	Long/short - equity	96,846,651
Wellington Management - Spindrift Investors (Bermuda), LP	Long/short - equity	1,190,572
Other Miscellaneous	Miscellaneous	11,601
		$5,182,634,926

Investments as of June 30, 2014

	Pension Trust Funds		Internal Service Funds	
	Investments at Cost Value	Investments at Fair Value	Investments at Cost Value	Investments at Fair Value
Common stocks				
Out on loan	$ 22,143,212	$ 30,425,895		
Not on securities loan	334,946,896	415,334,250		
Total	357,090,108	445,760,145		
International equities				
Out on loan	3,070,677	6,097,703		
Not on securities loan	176,012,705	851,617,247		
Total	179,083,382	857,714,950		
Bank loans	555,750	0		
Collateralized mortgage obligations	1	1		
Corporate bonds	2,985,976	1,720,892		
Foreign currencies	1,031,891	59,809		
Government bonds and government mortgage-backed securities	50,888,241	48,204,492		
International corporate bonds	6,134,032	5,020,362		
Limited partnerships	3,558,269,153	5,182,634,926		
REITs	3,617	9,986		
Repurchase agreements	10,418,820	10,418,820	$4,225,655	$4,225,655
Short-term investment funds	2,282,460,256	2,282,460,256		
Treasury bonds, notes and bills	2,649,585,045	2,668,044,546		
Total investments				
Out on loan	25,213,889	36,523,598		
Not on securities loan	9,073,292,397	11,465,525,601	4,225,655	4,225,655
Total	$9,098,506,272	$11,502,049,185	$4,225,655	$4,225,655
Reconciliation of investments to *Statements of Fiduciary Net Position*				
Total from above		$11,502,049,185		
Less short-term investments:				
Repurchase agreements		(10,418,820)		
Short-term investment funds		(2,247,013,704)		
Less invested securities lending collateral:				
Short-term investment funds		(35,446,552)		
Corporate bonds		(749,463)		
Investments on *Statements of Fiduciary Net Position*		$ 9,208,420,646		

Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.

(4) Capital Assets

Office building, furniture, fixtures, and equipment costing $1,000 or more when acquired are recorded at cost at the time of acquisition and are reported net of accumulated depreciation. Improvements, which increase the useful life of the property, are also capitalized. Maintenance and repairs are charged to expense as incurred. Depreciation is computed using the straight-line method over the estimated useful life of the related assets according to the following guidelines:

- 5 years for furniture, fixtures, and equipment
- 40 years for building
- 5 years for software and licensing

Below are schedules of the capital asset account balances for the pension trust funds and the internal service funds – State of Missouri Deferred Compensation Plan as of June 30, 2013, and June 30, 2014, and changes to those account balances during the year ended June 30, 2014.

Pension Trust Funds
Capital Asset Account

	Land	Building and Building Improvements	Furniture Fixtures and Equipment	Software and Licensing	Total Capital Assets
Capital Assets					
Balances June 30, 2013	$267,286	$4,060,176	$1,700,615	$261,230	$6,289,307
Additions	0	475,753	30,582	4,841	511,176
Deletions	0	0	(431,766)	0	(431,766)
Balances June 30, 2014	267,286	4,535,929	1,299,431	266,071	6,368,717
Accumulated depreciation					
Balances June 30, 2013	0	1,279,371	1,409,449	45,550	2,734,370
Depreciation expense	0	146,298	103,123	52,246	301,667
Deletions	0	0	(422,076)	0	(422,076)
Balances June 30, 2014	0	1,425,669	1,090,496	97,796	2,613,961
Net capital assets June 30, 2014	$267,286	$3,110,260	$ 208,935	$168,275	$3,754,756

Internal Service Funds
Capital Asset Account

	Leasehold Improvements	Furniture Fixtures and Equipment	Software and Licensing	Total Capital Assets
Capital Assets				
Balances June 30, 2013	$ 0	$5,124	$2,648	$ 7,772
Additions	3,880	1,195	2,302	7,377
Deletions	0	0	0	0
Balances June 30, 2014	3,880	6,319	4,950	15,149
Accumulated depreciation				
Balances June 30, 2013	0	3,287	868	4,155
Depreciation expense	0	459	530	989
Deletions	0	0	0	0
Balances June 30, 2014	0	3,746	1,398	5,144
Net capital assets June 30, 2014	$3,880	$2,573	$3,552	$10,005

(5) Employers' Net Pension Liability

The components of the net pension liability (the retirement system's liability determined in accordance with GASB Statement 67 less the fiduciary net position) as of June 30, 2014, are shown in the *Schedule of Net Pension Liability* below.

Actuarial valuation of an ongoing plan involves estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The last experience study was performed in 2012. The *Schedule of Changes in Employers' Net Pension Liability* presents multi-year trend information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the *Required Supplementary Information* on page 49. The total pension liability as of June 30, 2014, is $11,494,571,835 for MSEP and $462,336,255 for the Judicial Plan based on an actuarial valuation performed as of June 30, 2014, and a measurement date of June 30, 2014 using generally accepted actuarial procedures.

Changes to Amortization Period

In June 2013, the board approved a change to the period over which unfunded actuarial accrued liabilities are amortized to reduce the amortization period from an open 30 years to a closed 30 years beginning July 1, 2014. This will continue to reduce by one year for each subsequent annual valuation until the period reaches one year. The board intends to reexamine the amortization period in connection with the 2030 actuarial valuation to determine whether or not it should be reduced below 15 years.

The *Summary of Actuarial Assumptions* below apply to all periods included in the measurement of the total pension liability.

Schedule of Net Pension Liability

	MSEP	Judicial Plan
Total pension liability	$11,494,571,835	$462,336,255
MOSERS fiduciary net position	9,136,781,826	132,645,657
Employers' net pension liability	$ 2,357,790,009	$329,690,598
Plan net position as a percentage of the total pension liability	79.49%	28.69%
Covered employee payroll	$ 1,902,719,928	$ 49,587,936
Employers' net pension liability as a percentage of employee covered payroll	123.92%	664.86%

Summary of Actuarial Assumptions

	MSEP	Judicial Plan
Valuation date	June 30, 2014	June 30, 2014
Actuarial cost method	Entry age normal	Entry age normal
Amortization method	Level percent	Level percent
Remaining amortization period	30 years closed	30 years closed
Asset valuation method	3-year rolling smoothed +25/-20% market corridor	3-year rolling smoothed +25/-20% market corridor
Actuarial assumptions:		
Investment rate of return	8.00%	8.00%
Projected salary increases	3.2-5.9%	3.0-5.2%
Rate of payroll growth	3.00%	3.00%
COLAs	4.00%*	4.00%
Price inflation	2.50%	2.50%
Remaining amortization period	The Unfunded Actuarial Liability (UAAL) payment is calculated such that the minimum employer contribution rate will be 16.97% of payroll and 58.45% for judges (the rate calculated in the June 30, 2013 valuation) until such a time as the plans are at least 80% funded. When the plans become at least 80% funded, the remaining closed amortization period will be used to calculate the employer contribution rate to be made.	

* *On a compound basis, 4% for the first 12 years, 3.06% for the 13th year, and 2.0% per year thereafter.*

Mortality rates are based on the RP2000 combined healthy mortality table, projected to 2016 with Scale AA. The pre-retirement mortality rates used were 100% of the post-retirement mortality rates for males and 80% of the post-retirement mortality rates for females.

Sensitivity of Net Pension Liability to Changes in the Discount Rate

Employers' Net Pension Liability	1% Decrease (7.0%)	Current Discount Rate (8.0%)	1% Increase (9.0%)
MSEP	$3,657,023,580	$2,357,790,009	$1,261,901,551
Judicial Plan	373,545,085	329,690,598	291,802,104

The discount rate used to measure the total pension liability was 8.0%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made using the actuarially determined rates based on the board's funding policy, which established the contractually required rates under Missouri state code. Based on those assumptions, MOSERS' fiduciary net position was projected to be available to make all the projected future benefit payments of the current plan members. As a result, the long-term expected rate of return on pension plan investments of 8% was applied to all periods of projected benefit payments to determine the total pension liability.

GASB 67 requires the disclosure of the sensitivity of the net pension liability to changes in the discount rate. The table above presents the net pension liability of the state of Missouri calculated using the discount rate of 8.0%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.0% lower (7.0%) or 1.0% higher (9.0%) than the current rate.

The funding status of the plans and *Employer Schedule of Funding Progress* can be found in the *Actuarial Section* on page 98.

(6) Contributions and Reserves

The MSEP and the Judicial Plan are pension plans covering substantially all state of Missouri employees and judges. The state of Missouri is obligated by state law to make required contributions to the plans. The required contributions are expressed as a level percentage of covered payroll and are actuarially determined using an individual entry-age normal actuarial cost method. Contributions beginning July 2014 will be the contribution rate determined by the June 30, 2013 actuarial valuation (16.97% and 58.45% for MSEP and Judicial Plan, respectively) until the actuarial funding of the plans are at least 80%. The unfunded accrued liabilities are amortized over a closed 30-year period for FY14. MSEP 2011 employees are required to contribute 4% of their pay. Costs of administering the plans are financed from the contributions to the pension trust funds and investment earnings.

(7) Other Post Employment Benefits (OPEB)

In addition to the retirement benefits provided through MOSERS, the state of Missouri also funds, either partially or in its entirety, OPEB for eligible retirees as follows:

Retiree Life Insurance

Members who retire on or after October 1, 1985, are eligible for $5,000 of state-sponsored basic life insurance coverage if they retire directly from active employment. As of June 30, 2014, 22,755 retirees were participating in the program. This insured defined benefit coverage is financed on a percentage of payroll (.115%) and is purchased as a group policy through competitive bids and is currently administered through The Standard insurance company. The cost for the year ended June 30, 2014, was $1,841,333. Premiums are contributed entirely by the state as provided for by Section 104.515, RSMo.

Retirees of the Department of Labor and Industrial Relations (DOLIR), who retired prior to January 1, 1996, are eligible for state-sponsored insured defined benefit insurance coverage in the same amount of coverage they were receiving through the DOLIR. As of June 30, 2014, 265 retirees were participating in the program. The coverage for this closed group is purchased as a group policy through competitive bids at a current cost of $2.07 per thousand dollars of coverage, per month, per eligible participant ($32,334 for the year ended June 30, 2014). Premiums are paid entirely by the DOLIR as provided for by Section 228.225, RSMo. Retirees of the DOLIR who retired on or after January 1, 1996, are eligible for $5,000 of state-sponsored life insurance coverage if they retire directly from active employment. They are included in the group described in the preceding paragraph.

Long-Term Disability Insurance (LTD)

MOSERS provides LTD coverage for eligible members and generally includes those active members of MOSERS' retirement plans who do not have other disability coverage and are not yet eligible to receive normal (unreduced) retirement benefits. There were 33,873 members covered under the program as of June 30, 2014. This insured defined benefit coverage is financed on a percentage of covered payroll (.55%). Purchased as group policy through competitive bids, LTD is administered by The Standard insurance company. The cost for the year ended June 30, 2014, was $7,978,032. Premiums are contributed by the state as provided for by Section 104.515, RSMo.

Post-employment Retiree Health Care

MOSERS participates in a cost-sharing multiple-employer defined benefit post-employment health care plan administered by the Missouri Consolidated Health Care Plan (MCHCP). The plan provides medical benefits to retirees of participating governmental entities. Retirees who had medical insurance coverage for six months immediately prior to termination or state-sponsored medical coverage since the effective date of the last enrollment period (or since first eligible), before they are eligible to retire, may continue coverage into retirement.

MCHCP issues a publicly available financial report that includes financial statements and required supplementary information for the post employment health care plan. The report may be obtained by calling (800) 487-0771 or writing to MCHCP, 832 Weathered Rock Court, P.O. Box 104355, Jefferson City, MO 65110-4355.

Plan funding requests are actuarially determined, approved by the MCHCP Board of Trustees and subject to appropriation by the Missouri General Assembly. MOSERS contributed $233,820 in FY12, $236,012 in FY13 and $257,003 in FY14 in accordance with the state's funding policy toward the annual required contributions for post-employment retiree health care, which equaled MOSERS' required contribution each year.

(8) Plan Termination

MOSERS and its related plans are administered in accordance with Missouri statutes. Plans can only be terminated by an amendment to these statutes by the Missouri legislature.

On April 26, 2005, Senate Bill 202 was enacted, which terminated the Administrative Law Judges and Legal Advisors' Plan (ALJLAP) for new hires only. Under this legislation, individuals who assume a position after April 26, 2005, who would have otherwise been covered by the ALJLAP, will instead participate in the MSEP or the MSEP 2000, depending on when they initially became state employees. For fiscal years 2005 and after, all liabilities and assets of the ALJLAP were transferred and combined with the MSEP. Membership totals for ALJLAP members are combined with the MSEP in all relevant sections of this report.

(9) Commitments

As of June 30, 2014, MOSERS has $525,526,092 and €7,714,715 unfunded commitments in the illiquids asset class.

(10) Contingencies

The Internal Revenue Service (IRS) audited the tax qualified status of MOSERS. In a discussion draft dated August 9, 2007, the IRS raised two qualification issues but no further action has been taken by the IRS on those matters. MOSERS does not anticipate material liability for any taxes or penalties.

Pension Trust Funds

Schedule of Changes in Employer Net Pension Liability

*As of June 30, 2014**

	MSEP	Judicial Plan
Total pension liability		
Service cost	$ 158,116,026	$ 8,990,293
Interest on the total pension liability	869,878,195	34,013,615
Difference between expected and actual experience	12,376,237	13,360,614
Benefit payments	(679,014,251)	(29,406,625)
Refunds	(1,421,856)	0
Net change in total pension liability	359,934,351	26,957,897
Total pension liability - beginning	11,134,637,484	435,378,358
Total pension liability - ending (a)	11,494,571,835	462,336,255
Plan fiduciary net position		
Employer contributions	326,370,336	29,264,877
Employee contributions	14,025,328	294,810
Pension plan net investment income	1,193,952,121	17,199,701
Benefit payments	(679,014,251)	(29,406,625)
Refunds	(1,421,856)	0
Pension plan administrative expense	(7,336,922)	(105,693)
Other	296,369,500	4,195,049
Net change in plan fiduciary net position	1,142,944,256	21,442,119
Plan fiduciary net position - beginning	7,993,837,570	111,203,538
Plan fiduciary net position - ending (b)	9,136,781,826	132,645,657
Net pension liability - ending (a)-(b)	$ 2,357,790,009	$329,690,598
Plan fiduciary net position as a percentage of total pension liability	79.49%	28.69%
Covered employee payroll	$ 1,902,719,928	$ 49,587,936
Net pension liability as a percentage of covered employee payroll	123.92%	664.86%

** Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

Pension Trust Funds

Schedule of Employer Contributions

Last Ten Years

MSEP

Year Ended June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Payroll*
2005	$194,524,059	$194,524,059	$0	$1,806,600,560	10.8%
2006	226,338,183	226,338,183	0	1,777,277,138	12.7
2007	239,488,751	239,488,751	0	1,846,643,330	13.0
2008	249,770,156	249,770,156	0	1,916,527,398	13.0
2009	252,105,008	252,105,008	0	2,002,402,087	12.6
2010	251,226,187	251,226,187	0	1,945,095,321	12.9
2011	263,418,048	263,418,048	0	1,875,569,816	14.0
2012	263,373,924	263,373,924	0	1,864,069,493	14.1
2013	274,655,284	274,655,284	0	1,880,212,950	14.6
2014	326,370,336	326,370,336	0	1,902,719,928	17.2

Judicial Plan

Year Ended June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Payroll*
2005	$21,852,985	$21,852,985	$0	$40,016,098	54.6%
2006	22,401,569	22,401,569	0	40,270,535	55.6
2007	23,745,467	23,745,467	0	40,846,581	58.1
2008	26,215,309	26,215,309	0	44,542,530	58.9
2009	27,725,882	27,725,882	0	45,505,512	60.9
2010	27,029,198	27,029,198	0	46,112,730	58.6
2011	27,702,682	27,702,682	0	45,888,020	60.4
2012	26,324,526	26,324,526	0	45,835,501	57.4
2013	28,330,649	28,330,649	0	48,697,726	58.2
2014	29,264,877	29,264,877	0	49,587,936	59.0

** Actuarial contribution rate shown is the actual employer contribution made divided by payroll in force on May 31 reported for valuation. This rate as computed may vary from the boards' certified employer contribution rate due to the fluctuations in membership and pay during the year.*

Pension Trust Funds

Schedule of Annual Money-Weighted Rate of Return on Investments

*Year Ended June 30**

	2014
Annual money weighted rate of return, net of investment expense	19.25%

** Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

Pension Trust Funds

Notes to the Schedules of Required Supplementary Information

Last Ten Years

Actuarial Methods and Assumptions for Valuations Performed June 30, 2014

The entry-age actuarial cost method of valuation is used in determining liabilities and normal cost. Regular actuarial valuations provide valuable information about the composite change in the unfunded actuarial accrued liabilities (whether or not the liabilities are increasing or decreasing, and by how much). Since the future cannot be predicted with precision, actual experience is expected to differ from assumed experience. Differences occurring in the past between assumed experience and actual experience (actuarial gains and losses) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal and interest), which are expressed as a percent of payroll. A closed 30-year amortization period was used for the June 30, 2014 valuations. The actuarial value of assets is based on a method that fully recognizes expected investment returns and averages unanticipated market returns over a 3-year period. The corridor limit is currently 80% to 125%.

The investment return rate assumption remained the same at 8.0% per year, compounded annually (net of investment expenses) for June 30, 2014. The price inflation assumption used was an approximate 2.5% per year. Projected salary assumptions were 3.2% to 5.9% for MSEP and 3.0% to 5.2% for the Judicial Plan. The assumption used for annual post-retirement benefit increases (COLA) is 4.0% (on a compound basis) when a minimum COLA is in effect. When no minimum COLA is in effect, price inflation is assumed to be 2.5% and the annual COLA is assumed to be (80% of 2.5%), on a compound basis.

2005

The actuarial valuations as of June 30, 2005, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2007.

	Amount	Percent of Payroll
MSEP		
Mark-to-market asset valuation method adjustment	$(10,116,963)	(.56)%
Recognition of state pay freeze on across-the-board increases for FY06	(3,793,861)	(.21)
Experience and nonrecurring items including the addition of the assets and liabilities from the ALJLAP	17,162,705	.95
Judicial Plan		
Mark-to-market asset valuation method adjustment	28,011	.07
Recognition of state pay freeze on across-the-board increases for FY06	(136,055)	(.34)
Change in amortization factor to reflect the state pay freeze for fiscal year ending June 30, 2006	556,224	1.39
Experience and nonrecurring items	640,258	1.60

2006

The actuarial valuations as of June 30, 2006, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2008.

	Amount	Percent of Payroll
MSEP		
Change to an open 30-year amortization period	$(1,244,094)	(0.07)%
Experience and nonrecurring items	2,310,460	.13
Judicial Plan		
Change to an open 30-year amortization period	(265,786)	(0.66)
Experience and nonrecurring items	334,245	.83

2007

The actuarial valuations as of June 30, 2007, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2009.

	Amount	Percent of Payroll
MSEP		
Change in benefit assumptions or methods	$ (369,329)	(0.02)%
Experience and nonrecurring items	(5,355,266)	(0.29)
Judicial Plan		
Change in benefit assumptions or methods	(273,672)	(0.67)
Experience and nonrecurring items	853,694	2.09

2008

The actuarial valuations as of June 30, 2008, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2010.

	Amount	Percent of Payroll
MSEP		
Change in benefit assumptions or methods	$4,791,318	0.25%
Experience and nonrecurring items	(574,958)	(0.03)
Judicial Plan		
Change in benefit assumptions or methods	(547,873)	(1.23)
Experience and nonrecurring items	(160,353)	(0.36)

2009

The actuarial valuations as of June 30, 2009, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2011.

	Amount	Percent of Payroll
MSEP		
State of Missouri general pay freeze	$ (4,405,285)	(0.22)%
Experience and nonrecurring items	55,466,538	2.77
Change in valuation asset corridor from +/- 20% to +/- 30%	(29,835,791)	(1.49)
Judicial Plan		
State of Missouri general pay freeze	350,392	0.77
Experience and nonrecurring items	496,010	1.09
Change in valuation asset corridor from +/- 20% to +/- 30%	(141,067)	(0.31)

2010

The actuarial valuations as of June 30, 2010, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2012.

	Amount	Percent of Payroll
MSEP		
State of Missouri general pay freeze	$ (2,528,624)	(0.13)%
Addition of new tier of benefits effective 1-1-2011	(17,311,348)	(0.89)
Experience and nonrecurring items	25,480,749	1.31
Change in timing of contributions	(2,528,624)	(0.13)
Judicial Plan		
State of Missouri general pay freeze	(308,955)	(0.67)
Addition of new tier of benefits effective 1-1-2011	(493,406)	(1.07)
Experience and nonrecurring items	438,071	0.95
Change in timing of contributions	(894,587)	(1.94)

2011

The actuarial valuations as of June 30, 2011, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2013.

	Amount	Percent of Payroll
MSEP		
State of Missouri general pay freeze	$(6,376,937)	(0.34)%
Experience and nonrecurring items	17,630,356	0.94
Change in normal cost due to increased participants in MSEP 2011	(2,250,684)	(0.12)
Judicial Plan		
State of Missouri general pay freeze	(293,683)	(0.64)
Experience and nonrecurring items	289,095	0.63
Change in normal cost due to increased participants in MSEP 2011	(169,786)	(0.37)

2012

The actuarial valuations as of June 30, 2012, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2014.

	Amount	Percent of Payroll
MSEP		
Change in assumptions or methods	$21,623,206	1.16%
Experience and nonrecurring items	25,537,752	1.37
Judicial Plan		
Change in assumptions or methods	948,795	2.07
Experience and nonrecurring items	320,849	0.70

2013

The actuarial valuations as of June 30, 2013, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2015.

	Amount	Percent of Payroll
MSEP		
Change in benefit assumptions or methods	$18,990,151	1.01%
Experience and nonrecurring items	(376,043)	(0.02)
Judicial Plan		
Change in benefit assumptions or methods	(603,852)	(1.24)

2014

The actuarial valuations as of June 30, 2014, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2016.

	Amount	Percent of Payroll
MSEP		
Recognition of asset gains	$1,617,311,939	0.85%
Experience and nonrecurring items	(114,163,196)	(0.06)
Judicial Plan		
Change in normal cost due to increased participants in MSEP 2011 and experience	(51,075,574)	(1.03)
Anticipated change in salary levels	(118,019,288)	(2.38)

Pension Trust Funds

Schedules of Investment Expenses

Year Ended June 30, 2014

Investing activity	MSEP	Judicial Plan	Total
Investment management and administrative fees			
Actis Emerging Markets III & IV - private equity	$1,511,799	$21,778	$1,533,577
Aeolus Property Catastrophe, LP - hedge funds	84,001	1,210	85,211
African Development Partners I & II, LLC - private equity	711,496	10,250	721,746
Alinda Infrastructure Fund I, LP - private equity	392,425	5,653	398,078
American Industrial Partners V - private equity	680,201	9,799	690,000
AQR Absolute Return Institutional Fund, LP - hedge funds	1,406,493	20,261	1,426,754
AQR DELTA Sapphire Fund, LP - hedge funds	2,518,808	36,285	2,555,093
AQR Global Risk Premium Fund, LP - beta balanced	1,961,043	28,250	1,989,293
Ashmore Investment Management, Ltd. - emerging markets	466,286	6,717	473,003
Axiom Asia Private Capital Fund II & III, LP - private equity	1,132,828	16,319	1,149,147
Axxon Brazil Private Equity Fund II - private equity	884,786	12,746	897,532
Bayview Opportunity Domestic, LP - high yield	1,460,872	21,045	1,481,917
Bayview Opportunity Domestic III, LP - real estate	2,680,797	38,619	2,719,416
BlackRock Financial Management Bank Loans - high yield	7,047	102	7,149
BlackRock Financial Management Mortgage Opportunity - high yield	69,302	998	70,300
Blackstone Real Estate Partners IV, V, VI, & VII - real estate	17,804,484	256,486	18,060,970
Blackstone Topaz Fund, LP - hedge funds	5,129,357	73,892	5,203,249
Blakeney Onyx, LP - emerging markets	1,771,555	25,520	1,797,075
Brevan Howard, LP - hedge funds	1,349,494	19,440	1,368,934
Brevan Howard Emerging Markets Strategies Fund, LP - hedge funds	1,055,234	15,201	1,070,435
Bridgewater Associates Diamond Ridge Fund, LLC - hedge funds	3,071,457	44,246	3,115,703
Bridgewater All Weather, LLC - beta balanced	1,722,804	24,818	1,747,622
Bridgepoint Europe III A & IV B, LP - private equity	493,284	7,106	500,390
Campbell Timber Fund II A, LP - timber	532,203	7,667	539,870
Castlelake Aviation II - private equity	1,854,537	26,716	1,881,253
Catalyst Fund Limited Partnership III & IV - private debt	3,468,038	49,959	3,517,997
Catterton Partners V, VI, & VII, LP - private equity	4,171,084	60,087	4,231,171
CarVal Investors CVI Global Value Fund A, LP - real estate	313,561	4,517	318,078
CarVal Investors CVI Global Value Fund A, LP - private debt	313,561	4,517	318,078
Claren Road Credit Partners, LP - hedge funds	2,077,473	29,927	2,107,400
COMAC Global Macro Fund, LP - hedge funds	261,009	3,760	264,769
Cornwall Domestic, LP - hedge funds	506,365	7,295	513,660
CQS ABS Feeder Fund, Ltd. - hedge funds	1,327,512	19,124	1,346,636
Davidson Kempner Institutional Partners, LP - hedge funds	3,625,094	52,222	3,677,316
DRI Capital LSRC & LSRC II - private equity	556,708	8,020	564,728
EIG Energy Fund XIV, LP - real estate	512,312	7,380	519,692
EIG Energy Fund XV, LP - private equity	475,039	6,843	481,882
Elliott International, Ltd. - hedge funds	4,169,915	60,070	4,229,985
Eminence Fund, Ltd. - hedge funds	3,126,917	45,045	3,171,962
Empyrean Capital Fund, LP - hedge funds	3,825,091	55,103	3,880,194
Eton Park Fund, LP - hedge funds	1,274,572	18,361	1,292,933
Farallon Capital Institutional Partners, LP - hedge funds	152,253	2,193	154,446
Garnet Sky Investors Company, Ltd. - timber	2,734,787	39,396	2,774,183
Gateway Energy & Resource Holdings, LLC - real estate	19,623	283	19,906
Glenview Institutional Partners & Glenview Capital Opportunity Fund, LP - hedge funds	4,046,384	58,291	4,104,675
Global Forest Partners GTI7 Institutional Investors Co. Ltd. - timber	587,944	8,470	596,414
Grantham, May and Van Otterloo & Co., LLC - emerging markets	320,769	4,621	325,390
Harvest Fund Advisors - real estate	1,128,597	16,258	1,144,855
HBK Offshore Fund, Ltd. - hedge funds	3,356,381	48,351	3,404,732
JLL Partners V & VI, LP - private equity	6,192,832	89,212	6,282,044
King Street Capital, LP - hedge funds	1,252,071	18,037	1,270,108

Schedule of Investment Expenses continued on page 56

Schedule of Investment Expenses continued from page 55

Investing activity	MSEP	Judicial Plan	Total
Linden Capital Partners II - private equity	228,384	3,290	231,674
MAST Credit Opportunities I, LP - hedge funds	1,176,029	16,941	1,192,970
Merit Energy Partners F-II, LP - real estate	169,971	2,449	172,420
MHR Institutional Partners IIA, III & IV LP - private debt	6,376,102	91,852	6,467,954
Millennium Technology Partners II, LP - private equity	559,391	8,058	567,449
Morant Wright Investment Management - int'l developed equity	208,778	3,008	211,786
MOSERS Inc. - hedge funds	154	2	156
Nephila Capital Triton Master Fund, Ltd. - hedge funds	1,488,563	21,444	1,510,007
New Mountain Partners III, LP - private equity	1,888,692	27,208	1,915,900
NISA Investment Advisors, LLC - beta balanced	3,694,065	53,216	3,747,281
OCM Real Estate Opportunities Fund III, LP - real estate	(211,732)	(3,050)	(214,782)
OCM Opportunities Fund IVb, VII & VIIIb, LP - private debt	1,219,500	17,568	1,237,068
OCM/GFI Power Opportunities Fund II & III, LP - private equity	(151,653)	(2,185)	(153,838)
Perry Capital - hedge funds	685	16	701
Pershing Square, LP - hedge funds	1,711,087	24,649	1,735,736
Pharo Macro Fund, Ltd. - hedge funds	5,857,679	84,384	5,942,063
Resource Management Service Wildwood Timberlands, LLC - timber	755,417	10,882	766,299
Silchester International Investors - int'l developed equity	3,463,140	49,889	3,513,029
Silver Lake Partners II, LP - private equity	579,360	8,346	587,706
Silver Point Capital Fund, LP - alpha pool	236,649	3,409	240,058
SIR Hedged Equity Fund, Ltd. - hedge funds	2,532,404	36,481	2,568,885
SIRIS Partners II, LP - private equity	612,775	8,827	621,602
State Street Global Advisors - emerging markets	182,975	2,636	185,611
StepStone Capital Buyout Fund I & II, LP - private equity	396,057	5,705	401,762
StepStone Opportunities Fund II, LP - private equity	(8,254)	(119)	(8,373)
Stone Harbor Investment Partners, LP - emerging markets	448,866	6,466	455,332
TPG - Axon Partners (Offshore), Ltd. - hedge funds	13,143	189	13,332
The Veritas Capital Fund III & IV, LP - private equity	4,018,552	57,890	4,076,442
Viking Global Equities III, Ltd. - domestic equity	8,210,450	118,277	8,328,727
Visium Balanced Fund, LP - hedge funds	3,233,495	46,581	3,280,076
Total investment management fees	149,439,209	2,152,775	151,591,984
Other investment fees			
Investment consultant fees			
Summit Strategies, Inc.	1,008,280	14,525	1,022,805
TimberLink Consulting, LLC	29,574	426	30,000
Investment custodial fees			
BNY Mellon	348,822	5,025	353,847
Performance and risk measurement fees			
Cost Effective Measurement Benchmarking, Inc.	24,645	355	25,000
BNY Mellon	224,855	3,239	228,094
Barra, LLC	206,342	2,973	209,315
Internal investment activity expenses	4,283,943	61,713	4,345,656
Total investing activity expenses	155,565,670	2,241,031	157,806,701
Securities lending activity			
Securities lending borrower rebates	(287,954)	(4,148)	(292,102)
Securities lending management fees			
BNY Mellon	123,225	1,775	125,000
Deutche Bank	71,851	1,035	72,886
Total securities lending activity expenses	(92,878)	(1,338)	(94,216)
Total investment expenses	$155,472,792	$2,239,693	$157,712,485

Pension Trust Funds

Schedules of Internal Investment Activity Expenses

Pension Trust Funds - Year Ended June 30, 2014

	MSEP	Judicial Plan	Total
Personnel services			
Salaries	$2,898,883	$41,760	$2,940,643
Fringe benefits	834,865	12,027	846,892
Total personnel services	3,733,748	53,787	3,787,535
Professional services			
Attorney services	95,334	1,373	96,707
Consulting services	3,786	55	3,841
Total professional services	99,120	1,428	100,548
Communications			
Telephone	17,767	256	18,023
Postage and mailing	185	3	188
Total communications	17,952	259	18,211
Facilities			
Utilities	2,063	30	2,093
Lease expense	51,395	740	52,135
Depreciation	34,239	493	34,732
Facility maintenance	8,915	128	9,043
Vehicle maintenance and operation	172	2	174
Total facilities	96,784	1,393	98,177
Software and equipment			
Computer supplies and software	1,633	24	1,657
Depreciation	8,638	124	8,762
Total software and equipment	10,271	148	10,419
Education, meetings and travel			
Professional development including travel	6,160	89	6,249
MOSERS sponsored seminars	945	14	959
Due diligence travel	81,266	1,171	82,437
Tuition reimbursement	(12,815)	(185)	(13,000)
Total travel and meetings	75,556	1,089	76,645
General administrative			
Research and information services	216,091	3,113	219,204
Membership dues	19,548	282	19,830
Office supplies	4,683	67	4,750
Periodicals and publications	10,190	147	10,337
Total general	250,512	3,609	254,121
Total administrative expenses	$4,283,943	$61,713	$4,345,656

Pension Trust Funds

Schedules of Administrative Expenses

Year Ended June 30, 2014

	MSEP	Judicial Plan	Total
Personnel services			
Salaries	$3,779,527	$ 54,447	$3,833,974
Fringe benefits	1,537,006	22,142	1,559,148
Total personnel services	5,316,533	76,589	5,393,122
Professional services			
Actuarial services	184,922	2,664	187,586
Attorney services	111,377	1,604	112,981
Auditing services	43,375	625	44,000
Banking services	33,803	487	34,290
Consulting services	13,183	190	13,373
Total professional services	386,660	5,570	392,230
Communications			
Video production	1,778	26	1,804
Telephone	53,847	776	54,623
Printing	47,353	682	48,035
Postage and mailing	159,116	2,292	161,408
Total communications	262,094	3,776	265,870
Facilities			
Depreciation	109,982	1,584	111,566
Utilities	68,566	988	69,554
Facility maintenance	70,467	1,015	71,482
Vehicle maintenance	9,077	131	9,208
Total facilities	258,092	3,718	261,810
Software and equipment			
Computer supplies and software	48,101	693	48,794
Depreciation	144,525	2,082	146,607
Maintenance agreements	209,840	3,023	212,863
Equipment rental	108,165	1,558	109,723
Loss on sale of equipment	2,254	32	2,286
Total software and equipment	512,885	7,388	520,273
Education, meetings and travel			
Board travel and meetings	18,720	270	18,990
Professional development including travel	65,498	944	66,442
MOSERS sponsored seminars	78,300	1,128	79,428
Due diligence travel	2,490	34	2,524
Tuition reimbursement	139	2	141
Total education, meetings and travel	165,147	2,378	167,525
General administrative			
Advertising	13,175	190	13,365
Research and information services	79,315	1,143	80,458
Insurance	139,753	2,013	141,766
Membership dues	41,057	591	41,648
Business continuity	78,455	1,130	79,585
Office supplies	13,850	200	14,050
Periodicals and publications	69,906	1,007	70,913
Total general	435,511	6,274	441,785
Total administrative expenses	$7,336,922	$105,693	$7,442,615

Internal Service Funds

Schedules of Administrative Expenses

Year Ended June 30, 2014

	Life and LTD	Deferred Compensation	Total
Personnel services			
Salaries	$241,074	$181,110	$422,184
Employee fringe benefits	97,591	70,951	168,542
Total personnel services	338,665	252,061	590,726
Professional services			
Attorney services	1,611	1,189	2,800
Auditing services	3,032	38,300	41,332
Banking services	726	0	726
Total professional services	5,369	39,489	44,858
Communications			
Telephone	3,794	712	4,506
Printing	0	64	64
Video production expense	124	38	162
Total communications	3,918	814	4,732
Facilities			
Utilities	4,706	0	4,706
Maintenance	5,503	0	5,503
Total facilities	10,209	0	10,209
Software and equipment			
Computer supplies and equipment	3,354	993	4,347
Depreciation	0	989	989
Equipment use charge	22,699	0	22,699
Equipment maintenance	13,909	0	13,909
Equipment rental	7,176	0	7,176
Total software and equipment	47,138	1,982	49,120
Education, meetings and travel			
Board travel and meetings	1,302	0	1,302
Professional development including travel	4,219	4,792	9,011
MOSERS sponsored seminars	5,240	0	5,240
Due diligence travel	0	4,886	4,886
Total education, meetings and travel	10,761	9,678	20,439
General administrative			
Advertising	778	1,325	2,103
Research and information services	0	10,826	10,826
Insurance	9,768	0	9,768
Membership dues	2,870	1,374	4,244
Office supplies	5,386	2,566	7,952
Periodicals and publications	968	0	968
Total general	19,770	16,091	35,861
Total administrative expenses	$435,830	$320,115	$755,945

Schedules Professional/Consultant Fees

Year Ended June 30, 2014

Professional/Consultant	Nature of Service	Pension Trust Funds MSEP	Pension Trust Funds Judicial Plan	Pension Trust Funds Total	Internal Service Funds Life and LTD	Internal Service Funds Deferred Compensation	Internal Service Funds Total
Operation administrative expenses							
Central Bank	Banking	$ 32,173	$ 463	$ 32,636	$ 568	$ 0	$ 568
Charlesworth & Associates	Risk management consulting	7,796	112	7,908	0	0	0
Collector Solutions, Inc.	Banking	1,631	23	1,654	158	0	158
Corporate Renaissance Group	Information technology consulting	122	2	124	0	0	0
Gabriel, Roeder, Smith & Co.	Actuarial	184,922	2,664	187,586	0	0	0
HyperGen, Inc.	Information technology consulting	2,110	30	2,140	0	0	0
Kramer & Frank, PC	Collection services	157	3	160	0	0	0
Shae Marie Eickhoff	Compilation services	39	1	40	0	0	0
Steptoe & Johnson	Legal counsel	3,259	47	3,306	0	0	0
Thompson Coburn, LLP	Legal counsel	107,960	1,555	109,515	1,611	1,189	2,800
University of Missouri	Strategic planning consulting	3,116	45	3,161	0	0	0
Williams-Keepers, LLC	Financial audit	43,375	625	44,000	3,032	38,300	41,332
Operation administrative expenses subtotal		386,660	5,570	392,230	5,369	39,489	44,858
Internal investment administrative expenses							
CT Corporation	Legal counsel	640	9	649	0	0	0
Gabriel, Roeder, Smith & Co.	Actuarial consultation	3,147	45	3,192	0	0	0
Purrington Moody Weil, LLP	Trading consultation	33,637	485	34,122	0	0	0
Thompson Coburn, LLP	Legal counsel	61,696	889	62,585	0	0	0
Internal investment administrative expenses subtotal		99,120	1,428	100,548	0	0	0
Total professional/consultant fees		$485,780	$6,998	$492,778	$5,369	$39,489	$44,858

Information on investment management and consulting fees can be found in the *Schedule of Investment Expenses* on pages 55-56.

Pension Trust Funds

Investment Summary

Year Ended June 30, 2014

Type of Investment	June 30, 2013 Cost Value	June 30, 2013 Fair Value	Purchases and Capital Additions at Cost	Sales and Redemptions at Cost	June 30, 2014 Cost Value	June 30, 2014 Fair Value	Percent of Total Fair Value
Fixed income							
Treasury bonds, notes, and bills	$ 597,164,730	$ 593,757,630	$2,698,658,661	$ (646,238,346)	$2,649,585,045	$ 2,668,044,546	29%
Gov. bonds and govt. mortgage-backed securities	78,249,453	70,007,740	503,164	(27,864,376)	50,888,241	48,204,492	1
Corporate bonds	35,189,603	34,574,802	189,592	(34,141,808)	1,237,387	971,429	0
Convertible bonds	439,637	654,456	0	(439,637)	0	0	0
Collateralized mortgage obligations	23,519,246	28,364,477	251	(23,519,496)	1	1	0
International corporate bonds	28,845,542	4,997,840	975,579	(23,687,089)	6,134,032	5,020,362	0
Bank loans	555,751	98	0	0	555,751	0	0
Total fixed income	763,963,962	732,357,043	2,700,327,247	(755,890,752)	2,708,400,457	2,722,240,830	30
Common stock	317,916,197	377,714,665	130,331,149	(91,157,238)	357,090,108	445,760,145	5
International investments							
International equities	388,343,789	933,430,550	3,371,015	(212,631,422)	179,083,382	857,714,950	9
Foreign currency	7,824,592	7,862,572	18,186,406	(24,979,107)	1,031,891	59,809	0
Total international investments	396,168,381	941,293,122	21,557,421	(237,610,529)	180,115,273	857,774,759	9
Real estate investment trust	0	0	3,617	0	3,617	9,986	0
Venture capital limited partnerships	3,769,012,779	4,870,969,314	472,649,023	(683,392,649)	3,558,269,153	5,182,634,926	56
Investments *(per Statement of Fiduciary Net Position page 26)*	5,247,061,319	6,922,334,141	3,324,868,457	(1,768,051,168)	6,803,878,608	9,208,420,646	100%
Short-term investments							
Short-term investment funds	1,192,337,766	1,192,337,766	2,108,872,996	(1,054,197,058)	2,247,013,704	2,247,013,705	
Repurchase agreements	10,411,396	10,411,397	2,330,582,532	(2,330,575,108)	10,418,820	10,418,820	
Total short-term investments	1,202,749,162	1,202,749,163	4,439,455,528	(3,384,772,166)	2,257,432,524	2,257,432,525	
Invested securities lending collateral							
Corporate bonds	6,512,004	13,894,071	0	(4,763,415)	1,748,588	749,463	
Short-term investment funds	447,872,695	447,872,695	1,934,202,478	(2,346,628,622)	35,446,552	35,446,551	
Total invested securities lending collateral	454,384,699	461,766,766	1,934,202,478	(2,351,392,037)	37,195,140	36,196,014	
Total investments	$6,904,195,180	$8,586,850,070	$9,698,526,463	$(7,504,215,371)	$9,098,506,272	$11,502,049,185	

Internal Service Funds

Investment Summary

Year Ended June 30, 2014

	June 30, 2013				June 30, 2014		
Type of Investment	**Cost Value**	**Fair Value**	**Purchases and Capital Additions at Cost**	**Sales and Redemptions at Cost**	**Cost Value**	**Fair Value**	**Percent of Total Fair Value**
Repurchase agreements	$3,258,256	$3,258,256	$1,003,168,594	$(1,002,201,195)	$4,225,655	$4,225,655	100%

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.

Actuarial Section

THE BOTTOM LINE

The average MSEP retirement benefit is $15,609 per year.

Actuarial Section

Actuary's Certification Letter

GRS

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October 17, 2014

The Board of Trustees
Missouri State Employees' Retirement System
907 Wildwood Drive
Jefferson City, Missouri 65102

Dear Board Members:

The basic financial objective of the Missouri State Employees' Retirement System (MOSERS) 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 return will be sufficient to meet the present and future financial obligations of MOSERS.

In order to measure progress toward this fundamental objective, Missouri State Employees' Retirement Plan (MSEP) and the Judges Retirement Plan (Judges) perform annual actuarial valuations. The purposes of the valuations are to (i) measure present financial position, and (ii) establish contribution rates that provide for the normal cost and level percent of payroll amortization of unfunded actuarial accrued liabilities over a reasonable period. The latest completed actuarial valuations were based upon data and assumptions as of June 30, 2014, presented to the board in separate reports issued September 12, 2014. These valuations indicate that the calculated contribution rates for the fiscal year ending June 30, 2016, for the benefits scheduled to be in effect on and after July 1, 2014, meet the basic financial objective. These contribution rates are 15.95% of payroll for 50,621 active MSEP members, and 55.04% of payroll for 405 active Judicial Plan members.

MOSERS' board adopted a minimum funding policy at the September 17, 2014, board meeting. Specifically, the minimum employer contribution rate will remain at the level calculated in the June 30, 2013, valuation until the plan is 80% funded. These contribution rates are 16.97% of payroll for MOSERS' active members and 58.45% of payroll for Judical Plan actives.

The Governmental Accounting Standards Board (GASB) Statement 25 has been superseded by GASB Statement 67 and is no longer included in the valuation report. The GASB 67 disclosures were issued on September 30, 2014, in a separate report due to the expressed intent of GASB to disconnect reporting requirements from funding requirements.

The actuarial valuations are based upon financial and participant data which is prepared by retirement system staff, assumptions regarding future rates of investment return, salary increases, inflation, and assumptions regarding rates of retirement, turnover, death, and disability among MSEP and Judicial Plan members and their beneficiaries. The data is reviewed by us 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.

We are not responsible for the accuracy or completeness of the data. The demographic assumptions were adopted by MOSERS' Board of Trustees on June 20, 2012, based upon recommendations made in an experience study covering the period from 2007 to 2011. The economic assumptions were adopted by the board on July 19, 2012. The assumptions and methods used in this valuation comply with the current actuarial standards of practice.

The benefit structure is outlined in this section of the annual report. We provided the information used in the supporting schedules in the *Actuarial Section* including the *Employer Schedule of Funding Progress* as well as the employer contribution rates shown in the *Schedule of Employer Contributions* located in the *Financial Section*.

Based upon the valuation results, it is our opinion that the Missouri State Employees' Retirement Plan and the Judicial Retirement Plan continue to operate in accordance with actuarial principles of level percent of payroll financing. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the plans as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

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

This report should not be relied on for any purpose other than the purposes described. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

David T. Kausch and Brad Lee Armstrong are independent of the plan sponsor and Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

David T Kausch

David T. Kausch, FSA, EA, MAAA
Senior Consultant & Chief Actuary

Brad L Armstrong

Brad Lee Armstrong, ASA., EA, MAAA
Senior Consultant & Actuary

Summary of Actuarial Assumptions

Economic Assumptions

The economic assumptions were adopted by the board on July 19, 2012, to be first effective for the June 30, 2012, valuation. The assumed rate of return on investments used in the FY14 valuations was 8% per year, compounded annually (net after investment expenses). This assumption takes into consideration that equal amounts of money payable at different points in time in the future do not have the same value presently.

Pay increase assumptions for individual active members are shown for sample ages on pages 92 and 94. A portion of the assumption for each age represents merit and/or seniority increase, and the other 3% recognizes wage inflation. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

The active member payroll is assumed to increase 3% annually, which is the portion of the individual pay increase assumptions attributable to wage inflation. The annual cost-of-living adjustment (COLA) is assumed to be 4%, on a compounded basis, when a minimum COLA of 4% is in effect (4% for 12 years, 3.06% the next year to reach a cumulative 65% followed by 2%). When no minimum COLA is in effect, price inflation is assumed to be 2.5% and the annual COLA is assumed to be 2% (80% of 2.5%), on a compounded basis.

The table shown below provides the assumed rate of return (ARR) on investments, assumed price inflation (API) and real return objective (RRO) for the past ten valuation years.

Valuation Year	ARR %	API %	RRO %
2014	8.0%	2.5%	5.5%
2013	8.0	2.5	5.5
2012	8.0	2.5	5.5
2011	8.5	3.2	5.3
2010	8.5	3.2	5.3
2009	8.5	3.2	5.3
2008	8.5	3.5	5.0
2007	8.5	3.5	5.0
2006	8.5	3.5	5.0
2005	8.5	3.5	5.0

Non-Economic Assumptions

The demographic assumptions were adopted by the board on July 19, 2012, to be first effective for the June 30, 2012, valuation. The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the RP 2000 combined healthy mortality table, projected to 2016 with Scale AA. Related values are shown on pages 92 and 94. This assumption is used to measure the probabilities of each benefit payment being made after retirement. The pre-retirement mortality rates used were 100% of the post-retirement mortality rates for males and 80% of the post-retirement mortality for females.

The mortality tables include a margin of 15% for men and 17% for women for mortality improvements based on the four year experience study from July 1, 2007 to June 30, 2011.

The probabilities of age and service retirement are shown on page 93. It was assumed that each member will be granted one-half year (4 months for 2011 plan members) of service credit for unused leave upon retirement and military service purchases. The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages on pages 92-94. For disability retirement, impaired longevity was recognized by use of special mortality tables.

The entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost. Each member's normal cost was based on the benefit provisions applicable to that member. The normal cost is projected to the applicable fiscal year. Differences in the past between assumed experience and actuarial experience (actuarial gains and losses) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments, (principal and interest) which are level percents of payroll contributions

The amortization of the unfunded actuarial accrued liability is based on a closed 30-year amortization period, level percent of payroll amortization. This method was first effective with the June 30, 2014 valuation. The amortization is based on the projected unfunded actuarial accrued liability to the beginning of the fiscal year during which the contributions are expected to be made. The unfunded accrued actuarial liability (UAAL) payment is calculated such that the minimum employer contribution rate will be 16.97% of payroll and 58.45% for judges (the rate calculated in the June 30, 2013 valuation) until such a time as the plan is a least 80% funded. When the plan become at least 80% funded, the remaining closed amortization period will be used to calculate the employer contribution rate to be made. Employer contribution dollars were assumed to be paid in equal installments throughout the employer's fiscal year.

Valuation assets recognize assumed investment return fully each year. Differences between actual and assumed investment return are phased in over a rolling three-year period. Valuation assets are not permitted to deviate from the market value by less than 80% or more than 125%.

The data about persons now covered and about present assets were furnished by the system's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The liabilities for active members hired on or after January 1, 2011, were based on MSEP 2011 benefits. The liabilities for active members hired on or after July 1, 2000, (April 26, 2005 for administrative law judges) were based on MSEP 2000 benefits. The liabilities for active members hired before July 1, 2000, for elected officials, General Assembly, and uniformed water patrol were based on MSEP benefits. The liabilities for all other active members hired before July 1, 2000, were based on the assumption that members would elect MSEP 2000 prior to age 62 and MSEP on or after age 62.

For members on long-term disability, the actuarial accrued liability is the present value of benefits under active assumptions plus the difference of the present value of benefits with and without future pay growth to reflect indexing of pay in ultimate retirement benefits.

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

MSEP Retirement Values

June 30, 2014

Sample Attained Ages	Present Value of $1/Month the First Year (with 50% Joint & Survivor) Increasing 4.0%/2.0% Yearly				Present Value of $1/Month the First Year Increasing 2.0% Yearly				Future Life Expectancy (Years)			
	Service		Disability		Service		Disability		Service		Disability	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
40	$224.11	$224.12	$212.76	$211.89	$184.40	$186.75	$169.01	$172.32	41.95	44.10	32.39	34.43
45	217.22	217.01	202.65	201.39	177.68	180.43	157.94	162.08	37.15	39.24	27.68	29.69
50	208.28	207.81	190.14	188.39	169.01	172.32	144.49	149.76	32.39	34.43	23.13	25.13
55	196.76	196.07	175.18	172.83	157.94	162.08	128.94	135.56	27.68	29.69	18.87	20.84
60	182.48	181.61	157.88	154.80	144.49	149.76	111.76	119.87	23.13	25.13	14.96	16.90
65	165.46	164.49	138.11	134.44	128.94	135.56	92.72	102.82	18.87	20.84	11.39	13.32
70	145.94	144.91	116.94	112.03	111.76	119.87	73.10	84.62	14.96	16.90	8.29	10.12
75	123.90	123.17	96.04	88.83	92.72	102.82	55.15	66.19	11.39	13.32	5.83	7.37
80	100.55	100.10	76.52	68.15	73.10	84.62	40.28	50.49	8.29	10.12	4.03	5.31
85	78.09	77.41	59.89	52.82	55.15	66.19	30.32	40.10	5.83	7.37	2.91	4.05

MSEP - Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions

June 30, 2014

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Employee		
		Withdrawal*		Death**		Disability				
		Men	Women	Men	Women	Men	Women	Merit and Seniority***	Base (Economy)	Increase Next Year
	0	23.0%	26.9%							
	1	18.0	20.5							
	2	15.0	15.4							
	3	13.0	12.5							
	4	11.0	10.9							
25	5+	13.0	13.3	0.03%	0.01%	0.17%	0.30%	2.9%	3.0%	5.9%
30		10.2	10.5	0.04	0.02	0.17	0.30	2.2	3.0	5.2
35		7.9	8.1	0.07	0.03	0.21	0.30	1.6	3.0	4.6
40		5.6	5.7	0.09	0.04	0.26	0.32	1.2	3.0	4.2
45		4.2	4.3	0.12	0.07	0.34	0.38	0.9	3.0	3.9
50		2.8	2.9	0.16	0.10	0.49	0.57	0.7	3.0	3.7
55		2.8	2.9	0.27	0.19	1.07	0.89	0.5	3.0	3.5
60		2.8	2.9	0.52	0.37	1.50	1.50	0.4	3.0	3.4
65		2.8	2.9	1.02	0.72	1.60	1.70	0.3	3.0	3.3
70		2.8	2.9	1.74	1.24	1.60	1.70	0.2	3.0	3.2

* *Does not apply to elected officials and legislators.*

** *2% of the deaths in active service are assumed to be duty-related.*

*** *Does not apply to members of the General Assembly.*

MSEP - Percent of Eligible Active Members Retiring Next Year

June 30, 2014

	Normal Retirement Pattern				Early Retirement Pattern		
	MSEP and MSEP 2000*			MSEP 2011**		MSEP*	MSEP 2011**
	Percent Eligible						
Retirement Age	1st Year	2nd Year	3rd Year	Percent Eligible	Retirement Age	Percent Eligible	Percent Eligible
48	22%						
49	22	10%					
50	22	10	21%				
51	22	10	21				
52	22	10	21				
53	22	10	18				
54	22	10	18				
55	22	12	26	45%			
56	22	12	25	45			
57	22	12	22	35	57	2.5%	
58	22	12	22	35	58	3.5	
59	22	12	20	30	59	3.5	
60	21	12	22	35	60	5	
61	20	12	20	25	61	6	
62	19	22	30	40	62	6	10%
63	15	18	25	30	63	6	10
64	15	20	17	20	64	6	10
65	20	20	27	30	65	6	50
66	22	20	26	25	66	6	50
67	15	25	22	20	67	6	
68	15	20	22	20	68	6	
69	15	20	22	20	69	6	
70	25	20	22	20	70	6	
71	25	20	22	20	71	6	
72	25	20	22	20	72	6	
73	25	20	22	20	73	6	
74	25	20	22	20	74	6	
75	50	50	22	50	75	6	
76	50	50	22	50	76	6	
77	75	75	22	75	77	6	
78	100	100	100	100	78	100	

* *For members hired prior to January 1, 2011.*
** *For members hired on or after January 1, 2011.*

Elected Official and Legislators - Percent of Active Members Separating Within the Next Year

June 30, 2014

	Withdrawal		Withdrawal
Years of Service	Men/Women	Years of Service	Men/Women
1	8.0%	5	12.0%
2	8.0	6	12.0
3	8.0	7	12.0
4	8.0	8+	35.0

Judicial Plan - Retirement Values

June 30, 2014

Sample Attained Ages	Present Value of $1/Month the First Year (with 50% Joint & Survivor) Increasing 4.0%/2.0% Yearly				Present Value of $1/Month the First Year Increasing 2.0% Yearly				Future Life Expectancy (Years)			
	Service		Disability		Service		Disability		Service		Disability	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
40	$224.38	$223.90	$213.16	$211.47	$184.40	$186.75	$169.01	$172.32	41.95	44.10	32.39	34.43
45	217.58	216.73	203.19	200.83	177.68	180.43	157.94	162.08	37.15	39.24	27.68	29.69
50	208.75	207.44	190.84	187.67	169.01	172.32	144.49	149.76	32.39	34.43	23.13	25.13
55	197.38	195.60	176.09	171.92	157.94	162.08	128.94	135.56	27.68	29.69	18.87	20.84
60	183.27	181.03	159.02	153.70	144.49	149.76	111.76	119.87	23.13	25.13	14.96	16.90
65	166.45	163.79	139.51	133.14	128.94	135.56	92.72	102.82	18.87	20.84	11.39	13.32
70	147.12	144.11	118.57	110.55	111.76	119.87	73.10	84.62	14.96	16.90	8.29	10.12
75	125.29	122.34	97.88	87.30	92.72	102.82	55.15	66.19	11.39	13.32	5.83	7.37
80	102.13	99.32	78.52	66.77	73.10	84.62	40.28	50.49	8.29	10.12	4.03	5.31
85	79.74	76.76	61.89	51.78	55.15	66.19	30.32	40.10	5.83	7.37	2.91	4.05

Judicial Plan - Percent of Eligible Active Members Retiring Next Year

June 30, 2014

Normal Retirement Pattern					Early Retirement Pattern		
	Judicial Plan*		Judicial Plan 2011**			Judicial Plan*	
Retirement Age	Percent Eligible		Percent Eligible		Retirement Age	Percent Eligible	
	Men	Women	Men	Women		Men	Women
55	15%	4%					
56	15	4					
57	15	4					
58	15	4					
59	5	4					
60	10	10					
61	5	10					
62	10	10	30%	35%	62	8%	4%
63	10	10	20	20	63	8	4
64	10	10	15	20	64	8	4
65	15	23	30	50	65	8	4
66	20	23	25	25	66	8	4
67	20	23	20	25	67	8	4
68	30	23	20	25	68	8	4
69	30	23	30	50	69	8	4
70	100	100	100	100	70	100	100

* *For members hired prior to January 1, 2011*

** *For members hired on or after January 1, 2011*

Judicial Plan - Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions

June 30, 2014

Sample Ages	Percent of Active Members Separating Within the Next Year				Pay Increase Assumptions for an Individual Employee			Percent of Active Members Separating Within the Next Year		
	Death		Disability					Withdrawal		
	Men	Women	Men	Woman	Merit and Seniority	Base (Economy)	Increase Next Year	Service Index	Men	Women
25	0.03%	0.01%	0.01%	0.01%	2.2%	3.0%	5.2%	1	4.0%	4.0%
30	0.04	0.02	0.02	0.01	2.2	3.0	5.2	2	1.0	1.0
35	0.07	0.03	0.03	0.02	1.5	3.0	4.5	3	1.3	1.3
40	0.09	0.04	0.04	0.03	0.8	3.0	3.8	4	1.3	1.3
45	0.12	0.07	0.05	0.04	0.6	3.0	3.6	5	1.3	1.3
50	0.16	0.10	0.08	0.07	0.5	3.0	3.5	6-10	1.3	1.3
55	0.27	0.19	0.13	0.12	0.4	3.0	3.4	11-31	1.0	1.0
60	0.52	0.37	0.20	0.19	0.0	3.0	3.0			
65	1.02	0.72	0.20	0.19	0.0	3.0	3.0			

Miscellaneous and Technical Assumptions

June 30, 2014

Pay Increase Timing
Beginning of fiscal year.

Decrement Timing
Decrements of all types are assumed to occur mid-year.

Eligibility Testing
Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

Benefit Service
Exact fractional service is used to determine the amount of the benefit payable.

Decrement Relativity
Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

Decrement Operation
Disability and withdrawal do not operate during normal retirement eligibility.

Normal Form of Benefit
The assumed normal form of benefit is the straight life form for MSEP 2000 with 50% continuing to an eligible surviving spouse for MSEP. No adjustment has been made for post-retirement option election changes.

For judges, the assumed normal form of benefit is the straight life form, with 50% continuing to an eligible surviving spouse for members hired prior to January 1, 2011.

Other Liability Adjustments

MSEP 2000 Benefits for Active Employees

Option elections were studied for MSEP 2000 retirees and we believe that the normal and early retirement alternate forms of payment assumption are slightly negatively subsidized. We have adjusted the actuarial accrued liability and normal cost by a factor of 0.99 for MSEP 2000 and MSEP 2011 retirements and by .995 for MSEP retirements based on the current rate of form of payment elections.

Pre-Retirement Survivor Benefits
for Spouse of Terminated-Vested Member

Age	Male	Female
<30	1.97	1.68
30-39	1.40	1.29
40-49	1.15	1.11
>50	1.04	1.03

Incidence of Contributions
Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

MSEP 2000 Election
All regular state employees hired on or before June 30, 2000, are assumed to elect MSEP 2000 prior to age 62 and MSEP on or after age 62. Elected Officials, General Assembly, and Uniformed Water Patrol Members hired before July 1, 2000, and Administrative Law Judges hired before April 26, 2005, are assumed to elect MSEP at retirement.

Service Adjustment
It is assumed that each member will be granted one-half year of service credit, three months for unused leave upon retirement and three months for military service purchases. For members hired on or after January 1, 2011, it is assumed that each member will be granted four months for unused leave.

Marriage Assumption
It is assumed that among active members 75% are married at retirement, 70% of those dying in active service are married, and men are three years older than their spouses.

For judges, it is assummed that among active members 70% are married at retirement, 70% of those dying in active service are married, and men are four years older than their spouses.

Forfeitures
For those hired on or after January 1, 2011, 50% of state employees terminating at first vesting eligibility are assumed to take a refund and forfeit their deferred pension. This percentage decreases to 0% at first retirement eligibility.

For judges, vested members are assumed not to take a refund of member contributions and forfeit their benefit upon separation from service.

Salary and Benefit Limits

For purposes of the valuation, no limits were applied to member compensation or benefits.

The number of active members is assumed to remain constant although certain new hires on or after July 1, 2002, will participate in the Colleges and Universities Retirement Plan. Active and retired member data is reported as of May 31, 2014. It is assumed for valuation purposes that there is no turnover among members and no new entrants during the month of June 2014. New entrant assumed demographic patterns are based on the demographics of active members hired within the last five years.

Data Adjustments

Active and retired member data was reported as of May 31, 2014. It was brought forward to June 30, 2014, by adding one month of service for all active members and the June COLA for certain retired members. It is expected that this procedure resulted in a slight overstatement of total liabilities as of June 30, 2014. Financial information continues to be reported as of June 30, 2014. This procedure was instituted to provide sufficient time for the board of trustees to certify the appropriate contribution rate prior to the October 1 statutory deadline.

Active members reported with less than a $100 annualized salary were assumed to receive the average active member pay, which is $37,553 ($103,607 for Administrative Law Judges) as of June 30, 2014. There were 17 members affected by this assumption.

For judges, active members reported with no annualized salary were assumed to receive the average active member pay, which is $122,439, as of June 30, 2014.

When the option of choosing plans is available, terminated vested members are reported with two records, one with benefits under the MSEP plan and one with benefits under the MSEP 2000 plan. Because it is unknown what the member will elect at retirement, both records are valued and the plan that produces the higher present value of future benefits is used for valuation purposes.

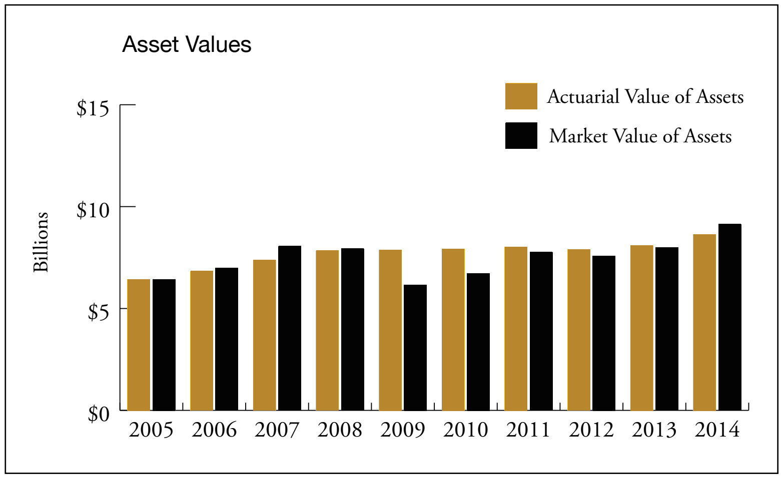
For any retired member who has elected a joint and survivor benefit yet has no beneficiary date of birth provided, it was assumed that the beneficiary is three years younger for male retirees and three years older for female retirees. For the terminated vested members, GRS staff found one member less than what was initially reported. This was confirmed with MOSERS staff. For members reported with no gender, the member is assumed to be male.

For judges, for any retired member who has elected a joint and survivor benefit yet has no beneficiary date of birth provided, it was assumed that the beneficiary is four years younger for male retirees and four years older for female retirees.

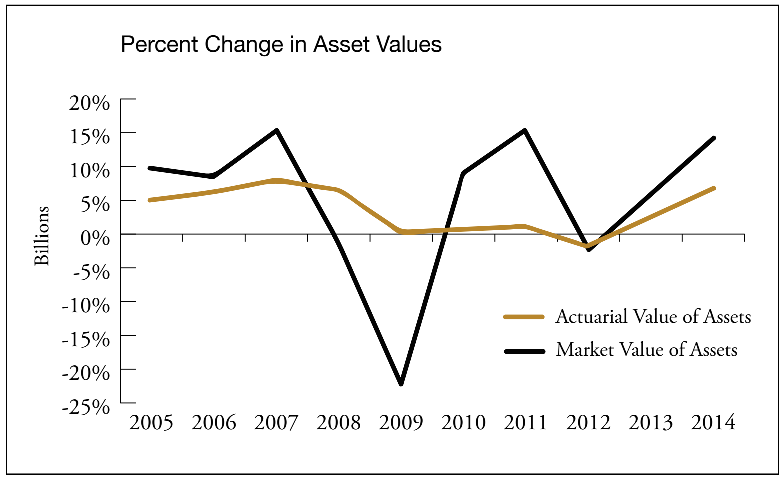
Due to limitations in our valuation program, members who are not eligible for normal retirement prior to age 85 had their date of birth adjusted.

Actuarial Asset Value Smoothing

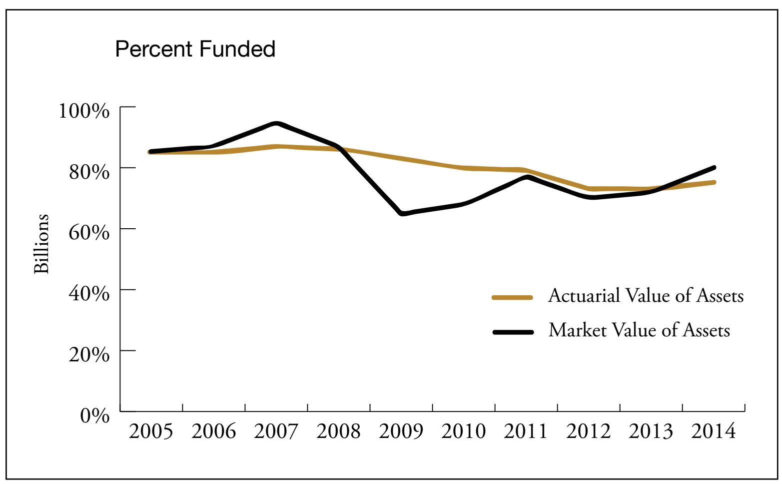
The financing objective of the vast majority of public retirement plans is to establish contribution rates and collect contributions which remain relatively level as a percent of active member payroll over decades of time. This concept is sometimes referred to as attempting to achieve intergenerational equity, meaning future generations will not be expected to pay more or less (in inflation adjusted terms) than the present generation contributes to support the plan.



Some critics of smoothing the actuarial value of assets suggest that pension plans are not providing "transparency" in connection with operations. Actual practice suggests otherwise. The *Statements of Fiduciary Net Position and Changes in Fiduciary Net Position* in the *Financial Section* are prepared on the basis of market values. Beyond that, all information related to asset values and results of investment activity in the *Investment Section* of this report is prepared on the basis of market values. This is required by the accounting and reporting standards established by the Governmental Accounting Standards Board and by the Government Finance Officers Association's *Guidelines for the Preparation of a Comprehensive Annual Financial Report*. Both organizations have been long standing proponents of transparency in governmental accounting and reporting – public retirement plans commonly subscribe to the dictates of both.



Many public retirement plans have begun to emphasize use of asset classes that, by their nature, tend to be somewhat volatile in market value. This is being done with the objective of increasing long-term investment returns, thus providing increased benefit security for plan participants and lower contribution rates for taxpayers than would otherwise be the case. With market value accounting for contribution rate determination purposes, we could achieve more level contribution rates by employing lower volatility asset classes but the level contribution rate would be much higher than is the case with the higher return expectations we have as the result of taking on asset volatility risk.



When operating with a long-term time horizon, with contribution rate stability as a key objective, asset smoothing for actuarial purposes is simply a tool. Asset smoothing for actuarial purposes is a practical solution to responsibly achieving intergenerational equity, giving recognition to the fact that market cycles do not coincide with financial reporting periods. The use of the "market-related" value established through smoothing simply makes more sense for determining contribution rates than using market value. The charts above further illustrate the impact of smoothing volatility in actuarial computations.

Pension Trust Funds

Employer Schedule of Funding Progress

Last Ten Years

MOSERS uses the entry-age normal funding method. The entry-age normal actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's pensionable compensation between the entry age of the member and assumed exit ages.

MSEP

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll [(b-a)/c]
6/30/2005	$6,435,344,102	$7,578,028,017	$1,142,683,915	84.9%	$1,806,600,560	63.3%
6/30/2006	6,836,567,188	8,013,205,414	1,176,638,226	85.3	1,777,277,138	66.2
6/30/2007	7,377,289,283	8,500,428,641	1,123,139,358	86.8	1,846,643,330	60.8
6/30/2008	7,838,495,768	9,128,347,470	1,289,851,702	85.9	1,916,527,398	67.3
6/30/2009	7,876,079,342	9,494,806,715	1,618,727,373	83.0	2,002,402,087	80.8
6/30/2010	7,923,377,393	9,853,155,445	1,929,778,052	80.4	1,945,095,321	99.2
6/30/2011	8,022,481,408	10,123,544,043	2,101,062,635	79.2	1,875,569,816	112.0
6/30/2012	7,897,167,203	10,793,651,577	2,896,484,374	73.2	1,864,069,493	155.4
6/30/2013	8,096,436,929	11,134,637,484	3,038,200,555	72.7	1,880,212,950	161.6
6/30/2014	8,637,758,955	11,494,571,835	2,856,812,880	75.1	1,902,719,928	150.1

Judicial Plan

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll [(b-a)/c]
6/30/2005	$ 44,223,509	$292,303,886	$248,080,377	15.1%	$40,016,098	620.0%
6/30/2006	51,652,867	309,002,752	257,349,885	16.7	40,270,535	639.1
6/30/2007	61,903,516	326,666,373	264,762,857	19.0	40,846,581	648.2
6/30/2008	73,194,379	354,796,453	281,602,074	20.6	44,542,530	632.2
6/30/2009	81,337,881	369,106,841	287,768,960	22.0	45,505,512	632.4
6/30/2010	88,976,738	382,012,773	293,036,035	23.3	46,112,730	635.5
6/30/2011	98,398,628	393,484,589	295,085,961	25.0	45,888,020	643.1
6/30/2012	102,266,706	413,332,538	311,065,832	24.7	45,835,501	678.7
6/30/2013	111,140,339	435,378,358	324,238,019	25.5	48,697,726	665.8
6/30/2014	124,269,105	462,336,255	338,067,150	26.9	49,587,936	681.8

Pension Trust Funds

Summary of Member Data Included in Valuations

June 30, 2014

Active Members

Valuation Group	Number	Payroll	Group Averages: Salary	Age (Yrs.)	Service (Yrs.)
MSEP					
Regular state employees	47,600	$1,730,725,210	$ 36,360	45.4	11.0
Elected officials	6	659,978	109,996	49.3	7.4
Legislative clerks	20	687,905	34,395	59.7	21.5
Legislators	191	6,871,658	35,977	51.6	4.5
Uniformed water patrol	14	891,278	63,663	42.7	17.1
Conservation department	1,382	60,168,509	43,537	44.9	14.5
School-term salaried employees	1,381	99,917,999	72,352	56.8	21.0
Administrative law judges	27	2,797,391	103,607	56.9	20.4
Total MSEP group	50,621	$1,902,719,928	$ 37,588	45.7	11.3
Judicial Plan	405	$ 49,587,936	$122,439	57.1	12.7

Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages: Benefit	Age (Yrs.)
MSEP				
Retirement	36,368	$567,676,706	$15,609	69.4
Disability	5	19,560	3,912	61.8
Survivor of active member	1,568	16,268,626	10,375	62.0
Survivor of retired member	3,059	34,765,624	11,365	75.0
Total MSEP group	41,000	$618,730,516	$15,091	69.5
Judicial Plan	511	$ 29,849,408	$58,414	75.8

Others

Group	Terminated Vested	Leave of Absence	Long-Term Disability
MSEP	18,933	199	997
Judicial Plan	24	0	1

Active Members by Attained Age and Years of Service

June 30, 2014

MSEP

	Years of Service to Valuation Date							Totals	
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
15-19	25							25	$ 610,207
20-24	1,551	10						1,561	41,503,475
25-29	3,599	655	5					4,259	130,818,824
30-34	2,669	2,010	507	10				5,196	175,271,645
35-39	1,790	1,578	1,433	463	11			5,275	189,090,092
40-44	1,573	1,339	1,358	1,506	344	19		6,139	229,549,327
45-49	1,371	1,186	1,179	1,345	1,105	457	28	6,671	259,667,755
50-54	1,327	1,258	1,286	1,348	1,037	1,136	459	7,851	313,424,713
55-59	1,018	1,129	1,225	1,289	962	813	609	7,045	282,776,035
60	164	200	194	209	157	137	77	1,138	46,920,269
61	144	176	196	218	144	110	74	1,062	43,747,035
62	116	170	201	212	123	90	98	1,010	41,684,599
63	110	134	158	144	94	67	85	792	32,980,322
64	67	118	131	119	95	72	59	661	27,767,902
65	56	105	112	100	93	40	53	559	24,912,000
66	40	73	76	62	38	34	38	361	15,541,258
67	29	56	71	48	30	23	30	287	13,390,922
68	22	40	45	41	22	19	27	216	9,747,650
69	9	21	29	29	14	11	15	128	6,213,487
70 & Over	36	60	82	72	42	31	62	385	17,102,411
Totals	15,716	10,318	8,288	7,215	4,311	3,059	1,714	50,621	$1,902,719,928

While not used in the financial computations, the following group averages are computed and shown because of their general interest.
Group Averages: Age - 45.7 years • Service - 11.3 years • Annual pay - $37,588

Judicial Plan

	Years of Service to Valuation Date							Totals	
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
30-34	2							2	$ 233,716
35-39	7	1						8	941,158
40-44	9	7	1					17	2,034,150
45-49	15	16	8	7				46	5,549,218
50-54	23	14	16	13	2	1		69	8,457,095
55-59	16	18	17	23	5	2	1	82	10,071,646
60	5	4	1	4	4	2	1	21	2,562,790
61	2	5	3	6	4	3	2	25	3,130,594
62	2	5	2	6	4	1		20	2,449,112
63	2	2	7	6	3		1	21	2,578,277
64		6	4		1		1	12	1,450,608
65	1		3	8	2	5	3	22	2,700,482
66	1	3	5	3	4	2	1	19	2,327,088
67		4	3	8	1	1	1	18	2,246,510
68		3	2	3	1	1	1	11	1,374,398
69			2		1	2	3	8	1,003,500
70			1	2		1		4	477,594
Totals	85	88	75	89	32	21	15	405	$49,587,936

While not used in the financial computations, the following group averages are computed and shown because of their general interest.
Group Averages: Age - 57.1 years • Service - 12.7 years • Annual pay - $122,439

Schedules of Active Member Valuation Data

Ten Years Ended June 30, 2014

MSEP

Valuation Date	Schedule of Active Member Valuation Data			
	Number	Annual Payroll	Annual Average Pay	% Increase In Average Pay
June 30, 2005	55,944	$ 1,806,600,560	$32,293	3.92%
June 30, 2006	54,493	1,777,277,138	32,615	1.00
June 30, 2007	54,363	1,846,643,330	33,969	4.15
June 30, 2008	54,542	1,916,527,398	35,139	3.44
June 30, 2009	55,057	2,002,402,087	36,370	3.50
June 30, 2010	53,478	1,945,095,321	36,372	0.01
June 30, 2011	51,660	1,875,569,816	36,306	(0.18)
June 30, 2012	51,332	1,864,069,493	36,314	0.02
June 30, 2013	50,833	1,880,212,950	36,988	1.86
June 30, 2014	50,621	1,902,719,928	37,588	3.51

Judicial Plan

Valuation Date	Schedule of Active Member Valuation Data			
	Number	Annual Payroll	Annual Average Pay	% Increase In Average Pay
June 30, 2005	392	$40,016,098	$102,082	0.09%
June 30, 2006	394	40,270,535	102,209	0.12
June 30, 2007	400	40,846,581	102,116	(0.09)
June 30, 2008	401	44,542,530	111,079	8.78
June 30, 2009	397	45,505,512	114,623	3.19
June 30, 2010	402	46,112,730	114,708	0.07
June 30, 2011	399	45,888,020	115,008	0.26
June 30, 2012	398	45,835,501	115,165	0.14
June 30, 2013	400	48,697,726	121,744	5.71
June 30, 2014	405	49,587,936	122,439	6.32

Retirees and Beneficiaries Added and Removed

*Ten Years Ended June 30, 2014**

MSEP

Fiscal Year Ended	Classification	Benefit Type	Added to Rolls Number	Added to Rolls Annual Allowances
June 30, 2009	General employees	Retirement	2,195	$37,338,992
		Survivor of active	82	996,258
		Survivor of retired	251	3,077,466
		Disability	0	876
	Lincoln University - vested	Retirement	0	0
		Survivor of active	0	0
	Legislators	Retirement	21	746,414
		Survivor of active	0	5,137
		Survivor of retired	4	84,108
	Elected officials	Retirement	2	105,141
		Survivor of active	0	2,997
		Survivor of retired	0	1,274
	ALJs	Retirement	3	168,517
		Survivor of active	0	0
		Survivor of retired	2	57,238
June 30, 2010	General employees	Retirement	2,298	34,755,192
		Survivor of active	83	1,054,292
		Survivor of retired	246	3,080,424
		Disability	0	830
	Lincoln University - vested	Retirement	1	5,671
		Survivor of active	0	0
	Legislators	Retirement	12	201,562
		Survivor of active	0	3,975
		Survivor of retired	5	78,765
	Elected officials	Retirement	0	0
		Survivor of active	0	3,117
		Survivor of retired	1	34,780
	ALJs	Retirement	3	113,877
		Survivor of active	0	0
		Survivor of retired	0	7,332
June 30, 2011	General employees	Retirement	2,850	41,203,358
		Survivor of active	65	914,689
		Survivor of retired	298	3,059,195
		Disability	0	79
	Lincoln University - vested	Retirement	1	1,780
		Survivor of active	0	0
	Legislators	Retirement	41	601,171
		Survivor of active	0	2,903
		Survivor of retired	5	73,841
	Elected officials	Retirement	0	0
		Survivor of active	0	3,242
		Survivor of retired	0	1,053
	ALJs	Retirement	4	212,519
		Survivor of active	0	0
		Survivor of retired	0	2,599

* *Schedule is intended to show information for10 years. Additional years will be displayed as they become available.*

Source of Data: MOSERS benefit payment database as of June 30, 2014.
Other Actuarial Section information reported based on MOSERS data as of May 31, 2014.

Removed from Rolls		Rolls at End of Year				
Number	Annual Allowances	Number	Annual Allowances	Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
852	$9,903,887	27,942	$425,200,398	6.90%	$15,217	1.76%
54	390,167	1,364	12,095,246	5.28	8,867	3.10
110	827,564	2,259	22,538,130	11.09	9,977	4.15
1	4,237	10	33,055	(9.23)	3,306	(0.15)
0	0	13	55,953	0.00	4,304	0.00
0	0	1	2,624	0.00	2,624	0.00
8	120,396	262	5,207,953	13.66	19,878	8.03
1	14,128	13	146,210	(5.79)	11,247	1.45
2	20,473	56	771,979	8.98	13,785	5.09
0	0	14	620,135	20.42	44,295	3.21
0	0	1	77,924	4.00	77,924	4.00
0	0	1	33,117	4.00	33,117	4.00
2	90,337	26	1,177,522	7.11	45,289	2.99
0	0	0	0	0.00	0	0.00
1	27,354	11	275,852	12.15	25,077	1.95
833	9,979,318	29,407	449,976,272	5.83	15,302	0.56
49	276,401	1,398	12,873,137	6.43	9,208	3.85
117	1,078,265	2,388	24,540,289	8.88	10,277	3.01
1	2,985	9	30,900	(6.52)	3,433	3.84
0	0	14	61,624	10.14	4,402	2.28
0	0	1	2,624	0.00	2,624	0.00
12	239,880	262	5,169,635	(0.74)	19,731	(0.74)
1	16,709	12	133,476	(8.71)	11,123	(1.10)
0	0	61	850,744	10.20	13,947	1.18
1	66,911	13	553,224	(10.79)	42,556	(3.93)
0	0	1	81,041	4.00	81,041	4.00
0	0	2	67,897	105.02	33,949	2.51
1	46,794	28	1,244,605	5.70	44,450	(1.85)
0	0	0	0	0.00	0	0.00
0	0	11	283,184	2.66	25,744	2.66
892	10,670,476	31,365	480,509,154	6.79	15,320	0.12
46	261,503	1,417	13,526,323	5.07	9,546	3.67
176	1,670,990	2,510	25,928,494	5.66	10,330	0.52
1	1,732	8	29,247	(5.35)	3,656	6.50
0	0	15	63,404	2.89	4,227	(3.98)
0	0	1	2,624	0.00	2,624	0.00
10	185,635	293	5,585,171	8.04	19,062	(3.39)
1	19,612	11	116,767	(12.52)	10,615	(4.57)
2	16,628	64	907,957	6.73	14,187	1.72
0	0	13	553,224	0.00	42,556	0.00
0	0	1	84,283	4.00	84,283	4.00
0	0	2	68,950	1.55	34,475	1.55
0	0	32	1,457,124	17.08	45,535	2.44
0	0	0	0	0.00	0	0.00
1	27,724	10	258,059	(8.87)	25,806	0.24

Retirees and Beneficiaries Added and Removed continued on pages 104-105

Retirees and Beneficiaries Added and Removed continued from pages 102-103

MSEP

			Added to Rolls	
Fiscal Year Ended	Classification	Benefit Type	Number	Annual Allowances
June 30, 2012	General employees	Retirement	2,637	$39,423,910
		Survivor of active	82	1,129,634
		Survivor of retired	282	3,665,503
		Disability	0	458
	Lincoln University - vested	Retirement	0	0
		Survivor of active	0	0
	Legislators	Retirement	13	229,979
		Survivor of active	0	3,531
		Survivor of retired	4	80,142
	Elected officials	Retirement	2	86,431
		Survivor of active	0	3,371
		Survivor of retired	0	1,336
	ALJs	Retirement	3	124,248
		Survivor of active	1	25,592
		Survivor of retired	2	57,704
June 30, 2013	General employees	Retirement	2,632	40,416,533
		Survivor of active	97	1,080,366
		Survivor of retired	323	4,085,887
		Disability	0	696
	Lincoln University - vested	Retirement	2	5,980
		Survivor of active	0	0
	Legislators	Retirement	37	442,937
		Survivor of active	0	3,851
		Survivor of retired	9	176,283
	Elected officials	Retirement	1	53,873
		Survivor of active	0	3,506
		Survivor of retired	0	1,458
	ALJs	Retirement	4	233,124
		Survivor of active	0	1,024
		Survivor of retired	2	65,892
June 30, 2014	General employees	Retirement	2,612	37,411,991
		Survivor of active	90	1,095,464
		Survivor of retired	324	3,954,360
		Disability	0	408
	Lincoln University - vested	Retirement	0	0
		Survivor of active	0	0
	Legislators	Retirement	18	239,904
		Survivor of active	0	3,680
		Survivor of retired	5	39,520
	Elected officials	Retirement	0	0
		Survivor of active	0	2,788
		Survivor of retired	1	10,811
	ALJs	Retirement	1	50,072
		Survivor of active	1	27,358
		Survivor of retired	0	7,404

** Schedule is intended to show information for10 years. Additional years will be displayed as they become available.*

Source of Data: MOSERS benefit payment database as of June 30, 2014.
Other Actuarial Section information reported based on MOSERS data as of May 31, 2014.

Removed from Rolls		Rolls at End of Year				
Number	Annual Allowances	Number	Annual Allowances	Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
895	$11,116,063	33,107	$508,817,001	5.89%	$15,369	0.32%
34	197,452	1,465	14,458,505	6.89	9,869	3.38
158	1,416,283	2,634	28,177,714	8.67	10,698	3.56
0	0	8	29,705	1.57	3,713	1.56
2	11,032	13	52,372	(17.40)	4,029	(4.68)
0	0	1	2,624	0.00	2,624	0.00
8	139,545	298	5,675,605	1.62	19,046	(0.08)
0	0	11	120,298	3.02	10,936	3.02
3	52,550	65	935,549	3.04	14,393	1.45
0	0	15	639,655	15.62	42,644	0.21
0	0	1	87,654	4.00	87,654	4.00
0	0	2	70,286	1.94	35,143	1.94
3	158,072	32	1,423,300	(2.32)	44,478	(2.32)
0	0	1	25,592	0.00	25,592	0.00
0	0	12	315,763	22.36	26,314	1.97
983	12,869,826	34,756	536,363,708	5.41	15,432	0.41
64	400,983	1,498	15,137,889	4.70	10,105	2.39
150	1,363,799	2,807	30,899,802	9.66	11,008	2.90
1	3,854	7	26,546	(10.63)	3,792	2.13
0	0	15	58,351	11.42	3,890	(3.45)
0	0	1	2,623	(0.04)	2,623	(0.04)
15	320,292	320	5,798,251	2.16	18,120	(4.86)
0	0	11	124,149	3.20	11,286	3.20
6	88,725	68	1,023,107	9.36	15,046	4.54
0	0	16	693,528	8.42	43,346	1.65
0	0	1	91,160	4.00	91,160	4.00
0	0	2	71,744	2.07	35,872	2.07
2	111,466	34	1,544,957	8.55	45,440	2.16
0	0	1	26,615	4.00	26,615	4.00
1	22,759	13	358,896	13.66	27,607	4.91
944	12,205,892	36,424	561,569,807	4.70	15,418	(0.09)
34	262,401	1,554	15,970,952	5.50	10,277	1.70
157	1,504,423	2,974	33,349,739	7.93	11,214	1.87
2	7,391	5	19,563	(26.31)	3,913	3.19
0	0	15	58,351	0.00	3,890	0.00
0	0	1	2,623	0.00	2,623	0.00
7	95,748	331	5,942,407	2.49	17,953	(0.92)
0	0	11	127,829	2.96	11,621	2.97
5	44,445	68	1,018,182	(0.48)	14,973	(0.49)
1	19,605	15	673,923	(2.83)	44,928	3.65
0	0	1	93,948	3.06	93,948	3.06
0	0	3	82,555	15.07	27,518	(23.29)
2	78,138	33	1,516,891	(1.82)	45,966	1.16
0	0	2	53,973	102.79	26,987	1.40
1	30,930	12	335,370	(6.56)	27,948	1.24

Retirees and Beneficiaries Added and Removed

*Ten Years Ended June 30, 2014**

Judicial Plan

		Added to Rolls		Removed from Rolls	
Fiscal Year Ended	Benefit Type	Number	Annual Allowances	Number	Annual Allowances
June 30, 2009	Retirement	30	$1,922,615	15	$ 957,943
	Survivor of active	1	59,484	0	0
	Survivor of retired	9	418,266	2	61,344
June 30, 2010	Retirement	12	1,137,305	13	750,021
	Survivor of active	0	32,700	2	32,399
	Survivor of retired	11	436,312	5	130,920
June 30, 2011	Retirement	36	2,501,248	9	563,214
	Survivor of active	0	14,893	1	35,792
	Survivor of retired	4	167,535	9	206,465
June 30, 2012	Retirement	18	1,490,554	14	1,074,572
	Survivor of active	0	22,717	0	0
	Survivor of retired	8	371,622	6	218,310
June 30, 2013	Retirement	27	2,233,387	13	851,802
	Survivor of active	0	28,591	1	33,778
	Survivor of retired	8	355,101	10	288,980
June 30, 2014	Retirement	18	1,671,667	8	443,807
	Survivor of active	2	66,272	0	0
	Survivor of retired	5	254,117	7	216,813

** Schedule is intended to show information for10 years. Additional years will be displayed as they become available.*

Rolls at End of Year				
Number	Annual Allowances	Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
326	$19,624,545	5.17%	$60,198	0.33%
37	1,056,425	5.97	28,552	3.10
103	3,139,829	12.83	30,484	5.16
325	20,011,829	1.97	61,575	2.29
35	1,056,726	0.03	30,192	5.74
109	3,445,221	9.73	31,608	3.69
352	21,949,863	9.68	62,358	1.27
34	1,035,827	(1.98)	30,466	0.91
104	3,406,291	(1.13)	32,753	3.62
356	22,365,845	1.90	62,825	0.75
34	1,058,544	2.19	31,134	2.19
106	3,559,603	4.50	33,581	2.53
370	23,747,431	6.18	64,182	2.16
33	1,053,358	(0.49)	31,920	2.52
104	3,625,723	1.86	34,863	3.82
380	24,975,291	5.17	65,724	2.40
35	1,119,630	6.29	31,989	0.22
102	3,663,027	1.03	35,912	3.01

Short-Term Solvency Test

Ten Years Ended June 30, 2014

MSEP

Fiscal Year	Actuarial Accrued Liabilities for: Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)	Actuarial Value of Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for (1)	(2)	(3)
2005	$ 0	$3,629,506,014	$3,948,522,003	$6,435,344,102	100.0%	100.0%	71.1%
2006	0	3,876,349,145	4,136,856,269	6,836,567,188	100.0	100.0	71.6
2007	0	4,208,621,537	4,291,807,104	7,377,289,283	100.0	100.0	73.8
2008	0	4,408,682,437	4,719,665,033	7,838,495,768	100.0	100.0	72.7
2009	0	4,737,859,976	4,756,946,739	7,876,079,342	100.0	100.0	66.0
2010	0	5,012,677,769	4,840,477,676	7,923,377,393	100.0	100.0	60.1
2011	67,126	5,357,794,617	4,765,682,300	8,022,481,408	100.0	100.0	55.9
2012	706,422	5,749,411,068	5,043,534,087	7,897,167,203	100.0	100.0	42.6
2013	1,504,901	6,062,654,441	5,070,478,142	8,096,436,929	100.0	100.0	40.1
2014	2,133,130	6,347,728,717	5,144,709,988	8,637,758,955	100.0	100.0	44.5

Judicial Plan

Fiscal Year	Actuarial Accrued Liabilities for: Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)	Actuarial Value of Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for (1)	(2)	(3)
2005	$ 0	$168,703,822	$123,600,064	$ 44,223,509	100.0%	26.2%	0.0%
2006	0	171,677,032	137,325,720	51,652,867	100.0	30.1	0.0
2007	0	199,489,503	127,176,870	61,903,516	100.0	31.0	0.0
2008	0	216,369,879	138,426,574	73,194,379	100.0	33.8	0.0
2009	0	231,505,591	137,601,250	81,337,881	100.0	35.1	0.0
2010	0	236,113,077	145,899,696	88,976,738	100.0	37.7	0.0
2011	284	251,532,354	141,951,951	98,398,628	100.0	39.1	0.0
2012	795	258,642,149	154,689,594	102,266,706	100.0	39.5	0.0
2013	2,924	274,911,416	160,464,018	111,140,339	100.0	40.4	0.0
2014	5,717	285,124,436	177,206,102	124,269,105	100.0	43.6	0.0

Derivation of Experience Gain (Loss)

Year Ended June 30, 2014

The actuarial gains or losses realized in the operation of the Retirement System provide an experience test. Gains and losses often cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a year-by-year comparative schedule.

MSEP	$ Millions
(1) Unfunded actuarial accrued liability (UAAL) at beginning of year	$3,038.2
(2) Normal cost from last valuation	158.1
(3) Actual employer contributions	343.3
(4) Interest accrual: (1)x.08+[(2)-(3)]x(.08/2)	235.6
(5) Expected UAAL before changes: (1)+(2)-(3)+(4)	3,088.6
(6) Change from any changes in benefits, assumptions, or methods	.0
(7) Expected UAAL after changes: (5)+(6)	3,088.6
(8) Actual UAAL at end of year	2,856.8
(9) Gain (loss) (7)-(8)	231.8
(10) Gain (loss) as a percent of actuarial accrued liabilities at start of year ($11,135)	2.1%

Valuation Date June 30	Actuarial Gain (Loss) as a % of Beginning Accrued Liabilities
2005	(3.4)%
2006	(0.1)
2007	1.0
2008	0.1
2009	(5.2)
2010	(4.0)
2011	(2.4)
2012	(4.7)
2013	(2.8)
2014	2.1

Judicial Plan	$ Millions
(1) Unfunded actuarial accrued liability (UAAL) at beginning of year	$324.2
(2) Employer normal cost middle of year	8.9
(3) Employer contributions	29.3
(4) Interest	
a. on (1)	25.9
b. on (2)	0.4
c. on (3)	1.2
d. total [a+b-c]	25.1
(5) Expected UAAL end of year before changes	329.1
(6) Change in UAAL end of year	
a. amendments	0.0
b. assumptions (pay freeze)	15.4
c. methods	0.0
d. total	15.4
(7) Expected UAAL after changes: (5)+(6d.)	344.5
(8) Actual UAAL at end of year	338.1
(9) Gain (loss) (7)-(8)	6.4
(10) Gain (loss) as a percent of actuarial accrued liabilities at start of year ($435.4)	1.5%

Valuation Date June 30	Actuarial Gain (Loss) as a % of Beginning Accrued Liabilities
2005	(0.1)%
2006	(1.1)
2007	(0.6)
2008	(3.0)
2009	(1.8)
2010	(1.1)
2011	(0.4)
2012	(0.6)
2013	(2.6)
2014	1.5

Comparison of Plans for General State Employees

June 30, 2014

MSEP • MSEP 2000 • MSEP 2011

Benefit Provisions	MSEP
Membership eligibility	• Members who work in a permanent position normally requiring at least 1,040 hours of work a year.
Vesting	• 5 years
Base benefit formula	• .016 x FAP x service *In the past, formula increases have been passed along to MSEP retirees.*
Temporary benefit formula	• Not available
Benefit payment options	• Life income annuity • *Unreduced* joint & 50% survivor • Joint & 100% survivor • Life income with 60 guaranteed payments • Life income with 120 guaranteed payments
Cost-of-living adjustment (COLA)	• If hired before August 28, 1997, will receive 4-5% each year until reaching the 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). • If hired on or after August 28, 1997, annual COLA will be based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	• Age 65 and active with 4 years of service • Age 65 with 5 years of service • Age 60 with 15 years of service "Rule of 80"- at least age 48 with age and service equaling 80 or more *Age 50 if first became eligible prior to August 28, 2003*
Early retirement eligibility	• Age 55 with 10 years of service *Base benefit will be reduced ½ of 1% (.005) for each month member's age is younger than normal retirement.*
Death before retirement	• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement).* – Survivor benefit to eligible spouse or children no less than 50% of average compensation.
In-service COLA	• COLA given for service beyond age 65. COLA provisions are determined by employment date.
BackDROP	• Must work at least two years beyond normal retirement eligibility to be eligible for BackDROP.
Service purchases	• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	• May transfer state service to other positions covered by MOSERS under 104.800.
Member contributions	• None

MSEP 2000	MSEP 2011
• Members hired for the first time on or after July 1, 2000, in a permanent position normally requiring at least 1,040 hours of work a year. • Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a permanent position normally requiring at least 1,040 hours of work a year.	• Members hired for the first time on or after January 1, 2011, in a permanent position normally requiring at least 1,040 hours of work a year.
• 5 years	• 10 years
• .017 x FAP x service *Future formula increases, if any, will not be passed along to retirees.*	• .017 x FAP x service *Future formula increases, if any, will not be passed along to retirees.*
• .008 x FAP x service *Available to those who retire under the "Rule of 80."*	• .008 x FAP x service *Available to those who retire under the "Rule of 90."*
• Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments	• Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments
• Based on 80% of the percentage increase in the CPI (0-5%).	• Based on 80% of the percentage increase in the CPI (0-5%).
• Age 62 with 5 years of service "Rule of 80" - at least age 48 with age and service equaling 80 or more *Age 50 if first became eligible prior to August 28, 2003*	• Age 67 with 10 years of service • "Rule of 90" - at least age 55 with age and service equaling 90 or more *Terminated-vested members not eligible for "Rule of 90."*
• Age 57 with 5 years of service *Base benefit will be reduced ½ of 1% (.005) for each month member's age is younger than normal retirement.*	• Age 62 with 10 years of service *Base benefit will be reduced ½ of 1% (.005) for each month member's age is younger than normal retirement.* *Terminated-vested members are not eligible.*
• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement).* – Survivor benefit to eligible spouse or children no less than 50% of average compensation.	• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement).* – Survivor benefit to eligible spouse or children no less than 50% of average compensation.
• Not available	• Not available
• Must work at least two years beyond normal retirement eligibility to be eligible for BackDROP.	• Not available
• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.	• May purchase qualifying public sector service at full actuarial cost.
• May transfer service under 104.1090 from other systems with written agreements to transfer required funds.	• Not available
• None	• 4% of pay

Comparison of Plans for Legislators

June 30, 2014

MSEP • MSEP 2000 • MSEP 2011

Benefit Provisions	MSEP
Membership eligibility	• Elected to the General Assembly
Vesting	• 3 full-biennial assemblies (6 years)
Base benefit formula	• Biennial assemblies x $150 *In the past, formula increases have been passed along to MSEP retirees.*
Temporary benefit formula	• Not available
Benefit payment options	• Life income annuity • *Unreduced* joint & 50% survivor • Joint & 100% survivor • Life income with 60 guaranteed payments • Life income with 120 guaranteed payments
Cost-of-living adjustment (COLA)	• If sworn in before August 28, 1997, will receive 4-5% each year until reaching 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). • If sworn in on or after August 28, 1997, COLA will be based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	• Age 55 with 3 full-biennial assemblies or • "Rule of 80" - at least age 48 with age and service equaling 80 or more
Early retirement eligibility	• Not available
Death before retirement	• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement)* – Survivor benefit to eligible spouse or children no less than 50% of the rate of compensation.
In-service COLA	• COLA given for service beyond age 65. COLA provisions are determined by employment date.
BackDROP	• Not available
Service purchases	• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	• May transfer state service to other positions covered by MOSERS under 104.800.
Member contributions	• None

MSEP 2000	MSEP 2011
• Elected to the General Assembly on or after July 1, 2000	• Elected to the General Assembly on or after January 1, 2011
• 3 full-biennial assemblies (6 years)	• 3 full-biennial assemblies (6 years)
• (Active legislator's pay ÷ 24) x service *Capped at 100% of pay; future formula increases, if any, will not be passed along to retirees.*	• (Active legislator's pay ÷ 24) x service *Capped at 100% of pay; future formula increases, if any, will not be passed along to retirees.*
• Not available	• Not available
• Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments	• Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments
• Benefit adjustment based on increase in pay for an active member of the general assembly.	• Benefit adjustment based on increase in pay for an active member of the general assembly.
• Age 55 with 3 full-biennial assemblies or • "Rule of 80" - at least age 50 with age and service equaling 80 or more	• Age 62 with 3 full-biennial assemblies or • "Rule of 90" - at least age 55 with age and service equaling 90 or more
• Not available	• Not available
• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement)* – Survivor benefit to eligible spouse or children no less than 50% of rate of compensation.	• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement)* – Survivor benefit to eligible spouse or children no less than 50% of rate of compensation.
• Not available	• Not available
• Not available	• Not available
• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.	• May purchase qualifying public sector service at full actuarial cost.
• May transfer service under 104.1090 from other systems with written agreements to transfer required funds.	• Not available
• None	• 4% of pay

Comparison of Plans for Statewide Elected Officials

June 30, 2014

MSEP • MSEP 2000 • MSEP 2011

Benefit Provisions	MSEP
Membership eligibility	• Elected to state office
Vesting	• 4 years (1 term)
Base benefit formula	• Less than 12 years of service FAP x .016 x service • 12 or more years of service Monthly statutory compensation x .50 *In the past, formula increases have been passed along to MSEP retirees.*
Temporary benefit formula	• Not available
Benefit payment options	• Life income annuity • *Unreduced* joint & 50% survivor • Joint & 100% survivor • Life income with 60 guaranteed payments • Life income with 120 guaranteed payments
Cost-of-living adjustment (COLA)	• Less than 12 years of service – Statewide elected officials sworn in before August 28, 1997 will receive 4-5% each year until they reach 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). – Statewide elected officials sworn in between August 28, 1997 and June 30, 2000, will receive a COLA equal to 80% of percentage increase in the CPI (0-5%). • 12 or more years of service Statewide elected officials with 12 or more years of service will receive a COLA based on increases in statutory compensation for the highest position held. – Statewide elected officials sworn in before August 28, 1997 will receive 4-5% each year until they reach 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). – Statewide elected officials sworn in between August 28, 1997 and June 30, 2000, will receive a COLA equal to 80% of percentage increase in the CPI (0-5%).
Normal retirement eligibility	• Age 60 with 15 years of service or • "Rule of 80" - at least age 50 with age and service equaling 80 or more
Early retirement eligibility	• Age 55 with 10 years of service
Death before retirement	• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement)* – Survivor benefit to eligible spouse or children no less than 50% of current pay.
In-service COLA	• COLA provisions determined by amount of service relative to 12 years and date of employment.
BackDROP	• Not available
Service purchases	• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	• May transfer state service to other positions covered by MOSERS under 104.800.
Member contributions	• None

MSEP 2000	MSEP 2011
• First employed on or after July 1, 2000	• First employed on or after January 1, 2011
• 4 years (1 term)	• 4 years (1 term)
• (Active elected official's pay ÷ 24) x service *Capped at 12 years of service or 50% of pay; future formula increases, if any, will not be passed along to retirees.*	• (Active elected official's pay ÷ 24) x service *Capped at 12 years of service or 50% of pay; future formula increases, if any, will not be passed along to retirees.*
• Not available	• Not available
• Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments	• Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments
• Benefit adjustment based on increase in pay for an active statewide elected official.	• Benefit adjustment based on increase in pay for an active statewide elected official.
• Age 55 with 4 years of service or • "Rule of 80" - at least age 50 with age and service equaling 80 or more	• Age 62 with 4 years of service or • "Rule of 90" - at least age 55 with age and service equaling 90 or more
• Not available	• Not available
• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement)* – Survivor benefit to eligible spouse or children no less than 50% of current pay.	• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement)* – Survivor benefit to eligible spouse or children no less than 50% of current pay.
• Not available	• Not available
• Not available	• Not available
• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate; may also purchase public sector service at full actuarial cost.	• May purchase qualifying public sector service at full actuarial cost.
• May transfer service under 104.1090 from other systems with written agreements to transfer required funds.	• Not available
• None	• 4% of pay

Comparison of Plans for Judges

June 30, 2014

Judicial Plan • Judicial Plan 2011

Benefit Provisions	Judicial Plan
Membership eligibility	• Must be a judge or commissioner of the supreme court or the court of appeals, a judge of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, a justice of the peace, or a commissioner or deputy commissioner of the circuit court appointed after February 29, 1972; a commissioner of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo; a commissioner of the drug court pursuant to Section 478.466, RSMo; or a commissioner of the family court.
Vesting	• Immediate
Base benefit formula	• Monthly pay x .50 = monthly base benefit
Temporary benefit formula	• Not available
Benefit payment options	• Life income annuity • Automatic *unreduced* joint and 50% survivor option *If married at least two continuous years immediately preceding judges death.*
Cost-of-living adjustment (COLA)	• If hired before August 28, 1997, will receive 4-5% each year until reaching 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%) • If hired on or after August 28, 1997, based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	• Age 62 with 12 years service • Age 60 with 15 years service • Age 55 with 20 years service
Reduced retirement eligibility	• Age 60 if less than 15 years service • Age 62 if less than 12 years service
Death before retirement	• Non duty-related death – Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service to age 70. • Duty-related death – Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.
In-service COLA *Service beyond age 65*	• Judges who are at least age 60 and work beyond the date first eligible for unreduced benefits will receive COLAs for each year worked beyond normal retirement eligibility. COLA provisions are determined by date of employment.
BackDROP	• Not available
Service purchases	• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	• May transfer state service to other positions covered by MOSERS under 104.800.
Member contributions	• None

Judicial Plan 2011

• Must be a judge or commissioner of the supreme court or the court of appeals, a judge of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, a justice of the peace, or a commissioner or deputy commissioner of the circuit court; a commissioner of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo; a commissioner of the drug court pursuant to Section 478.466, RSMo; or a commissioner of the family court appointed or elected a judge for the first time on or after January 1, 2011.
• Immediate
• Monthly pay x .50 = monthly base benefit
• Not available
• Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments
• Based on 80% of the percentage increase in the CPI (0-5%)
• Age 67 with 12 years service • Age 62 with 20 years service
• Age 67 if less than 12 years service • Age 62 if less than 20 years service
• Non duty-related death – Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service to age 70. • Duty-related death – Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.
• Not available
• Not available
• May purchase qualifying public sector service at full actuarial cost.
• May transfer state service to other positions covered by MOSERS under 104.800.
• 4% of pay

Comparison of Plans for Uniformed Members of the Water Patrol

June 30, 2014

MSEP • MSEP 2000

Benefit Provisions	MSEP	MSEP 2000
Membership eligibility	• Members who work in a permanent 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 permanent position normally requiring at least 1,040 hours of work a year. • Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a permanent position normally requiring at least 1,040 hours of work a year.
Vesting	• 5 years of service	• 5 years of service
Base benefit formula	• 1.6% x FAP x service increased by 33.3%	• 1.7% x FAP x service
Temporary benefit formula	• Not available	• 0.8% x FAP x service *(must retire under "Rule of 80")*
Benefit payment options	• Life income annuity • *Unreduced* joint and 50% survivor • Joint & 100% survivor • 120 or 180 guaranteed payments	• Life income annuity • Joint & 50% survivor • Joint & 100% survivor • 120 or 180 guaranteed payments
Cost-of-living adjustment (COLA)	• If hired before August 28, 1997, will receive 4-5% each year until reaching 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). • If hired on or after August 28, 1997, based on 80% of the percentage increase in the CPI (0-5%).	• Based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	• Age 55 and active with 4 years of service • Age 55 with 5 years of service • "Rule of 80"- minimum age 48	• Age 62 with 5 years of service • "Rule of 80" - minimum age 48
Early retirement eligibility	• Not available	• Age 57 with 10 years of service
Death before retirement	• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement)* – Survivor benefit to eligible spouse or children no less than 50% of current pay.	• Non duty-related death *(vested members)* – 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. • Duty-related death *(no minimum service requirement)* – Survivor benefit to eligible spouse or children no less than 50% of current pay.
In-service COLA	• COLA given for service beyond age 65. COLA provisions are determined by employment date.	• Not available
BackDROP	• Must work at least two years beyond normal retirement eligibility to be eligible for BackDROP.	• Must work at least two years beyond normal retirement eligibility to be eligible for BackDROP.
Service purchases	• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.	• May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	• May transfer state service to other positions covered by MOSERS under 104.800.	• Not available
Member contributions	• None	• None

Life Insurance Plans

June 30, 2014

MOSERS administers basic and optional term life insurance plans for eligible state employees and retirees.

Active Members*

Plan Provision	Requirement
• **Basic life insurance** - An amount equal to one times annual salary (with a minimum of $15,000) while actively employed.	• Actively employed in an eligible state position resulting in membership in MOSERS.
• **Duty-related death benefit** - Duty-related death benefit equivalent to two times the annual salary the member was earning at the time of death in addition to the basic life insurance amount of one times annual salary.	• Actively employed in an eligible state position resulting in membership in MOSERS.
• **Optional life insurance** - Additional life insurance may be purchased in a flat amount in multiples of $10,000 not to exceed the maximum (lesser of six times annual salary or $800,000). Spouse coverage may be purchased in multiples of $10,000 up to a maximum of $100,000; however, the amount of spouse coverage cannot exceed the amount of optional life insurance coverage the member has purchased. Coverage for children is available in a flat amount of $10,000 per child.	• Actively employed in an eligible state position resulting in membership in MOSERS.

* *Terminating employees may convert coverage up to the amount they had as an active employee at individual rates.*

Retired Members

Plan Provision	Requirement
• **Basic life insurance at retirement** - $5,000 basic life insurance during retirement.	• Must retire directly from active employment.
• **Optional life insurance at retirement** (**MSEP**) - An employee may retain up to the lesser of $60,000 or the amount of optional life insurance coverage held at the time of retirement at the group rate and may convert any remaining basic and optional life insurance at individual rates.	• Must retire directly from active employment.
• **Optional life insurance at retirement** (**MSEP 2000**) - Under "Rule of 80", an employee may retain the current amount of coverage prior to retirement until age 62 at which time coverage is reduced to $60,000, and may convert any remaining basic and optional life insurance at individual rates. Coverage for spouse ends at member's retirement and may be converted at individual rates.	• Must retire directly from active employment.
• **Optional life insurance at retirement** (**MSEP 2011**) - Under "Rule of 90", an employee may retain the current amount of coverage prior to retirement until age 62 at which time coverage is reduced to $60,000, and may convert any remaining basic and optional life insurance at individual rates. Coverage for spouse ends at member's retirement and may be converted at individual rates.	• Must retire directly from active employment.

Long-Term Disability (LTD) Plans

June 30, 2014

MOSERS administers the LTD Plan for eligible state employees who become disabled during active employment.

Active Members

Classification	Requirement
General state employees, legislators, and elected state officials - Members of MOSERS in a position normally requiring 1,040 hours of work a year are covered under the LTD plan, unless they work for a state agency which has its own LTD plan.	• Eligible participants receive 60% of their compensation minus primary social security, workers' compensation, and employer provided income. Benefits commence after 90 days of disability or when sick leave benefits are no longer payable, whichever occurs last. LTD benefits cease upon the earliest of (i) when disability ends, (ii) when the member is first eligible for normal retirement benefits or is receiving early retirement benefits, (iii) when the member returns to work, or (iv) upon a member's death.
Water patrol	• Uniformed members who are eligible for statutory occupational disability receive benefits equal to 50% of compensation with no offset for social security at the time of disability. For nonoccupational disabilities, eligible participants receive the same benefit as general employees.
Judges	• In addition to the disability benefits provided to general employees, judges also receive benefits under the state constitution. Participants receive 50% of salary until the current term expires.

Changes in Plan Provisions

Governor Nixon signed into law House Bill 1882 (HB 1882) – legislation which changed several administrative provisions affecting public employee retirement plans in Missouri and amended certain provisions affecting the reporting requirements stipulated by the Joint Committee on Public Employee Retirement (JCPER).

Previously, public employee retirement systems were required to make available all information, books and records requested by the JCPER. In the event of non-compliance, HB 1882 would require the systems' staff or board members to testify before the committee regarding such non-compliance. The legislation also removes a provision that requires all plans providing periodic cost-of-living (COLA) increases in pension benefits prior to September 28, 1985, to notify the committee of such COLAs within seven days. Related to that topic, additional language would require that the committee be notified within seven days of any new or additional payments "beyond the plan provisions of the prior plan year" of periodic COLAs. The legislation also changes the JCPER report filing date to the General Assembly from no later than January 15th of each year to no later than the first quarterly meeting of the JCPER each year.

As it relates to the administrative provisions affecting public employee retirement plans:

- Under the definition of a substantial proposed change, language has been added that states that the closing or freezing of a current defined benefit plan is considered a substantial proposed change for purposes of sections 105.665, 105.670, 105.675, and 105.685.
- Language has been added that requires all defined benefit plans to forward to the JCPER an actuarial valuation performed in compliance with applicable governmental accounting standards within 60 days after completion or adoption of such valuation.

As it relates to the preparation of cost statements, provisions have been amended to require retirement plans to:

- Express those costs in both estimated annual dollars and as a percent of active employee payroll as it relates to the normal cost, unfunded accrued liabilities, and total contributions.
- Include the plan's actuarial value of assets, market value of assets, actuarial accrued liability, and funded ratio as of the most recent actuarial valuation.
- Include a projection of at least ten years of the current plan provisions compared to the proposed change from the proposed effective date of such change including the total contribution requirements expressed in both estimated annual dollars and as a percent of active employee payroll, the actuarial value of assets, the market value of assets, the actuarial accrued liability, and the funded ratio, except that such projection would not apply to employers within the retirement system established in sections 70.600 to 70.755, but in lieu thereof, would include a schedule of at least ten years containing current provision estimated employer contributions as a percent of payroll and estimated annual dollars, proposed provision estimated employer contributions as a percent of payroll and estimated annual dollars, and the resulting difference. Such schedule would also include the estimated difference between the actuarial accrued liability and actuarial value of assets for each scenario.
- Require cost statements to be available as public information for at least five legislative days before third reading and passage by either the House or Senate (presently, the cost statement must be available for at least five legislative days before final passage). If any substantial proposed change is made by either the House or Senate or a committee thereof, the cost statement must be amended to reflect any additional features prior to the proposal being truly agreed to and finally passed.
- Removes "after August 28, 2007" from provisions requiring that a first lien be placed on the funds of a political subdivision if said political subdivision has failed to make 100% of the actuarially required contribution payment for five successive years with a descending funded ratio for five successive years.

As it relates to the education of board members, HB 1882:

- Changes the current requirement of at least two continuing education programs each year (for board members who have served one or more years) to a total of six hours of continuing education each year.
- Prohibits routine annual presentations by outside plan service providers from being used to satisfy board member education or continuing education requirements; however, such service providers could be utilized to perform education programs with such programs being separate and apart from routine annual presentations.
- Requires the system or staff to maintain a record of board member education including, but not limited to, date, time length, location, education material, and any facilitator utilized. In addition, the record must be signed and attested to by the attending board member or board chairman or designee. Such information must be maintained for public record and disclosure for at least three years or until the expiration of such board member's term, whichever occurs first.

- Allows the board, by majority vote, to remove any board member, excluding ex-officio members, who knowingly does not participate in the required education programs, which shall result in a vacancy to be filled in accordance with the plan's provisions.

As it relates to the provisions prohibiting plan benefit increases beyond those in effect prior to August 28, 2007, clarifying language has been added that states:

- No benefit changes would be allowed that, in the aggregate with any other proposed plan provisions, increase the plan's actuarial accrued liability when valued by an actuary using the same methods and assumptions as used in the most recent periodic valuation, unless the plan's actuary determines that the funded ratio of the most recent periodic actuarial valuation and prior to such adoption or implementation is at least eighty percent and will not be less than seventy five percent after such adoption or implementation.
- Methods and assumptions used in valuing such proposed change may be modified if the nature is such that alternative assumptions are clearly warranted.

A provision also has been added to Chapter 105, RSMo, that would require all retirement plans covered under section 105.660 to develop a procurement action plan for utilization of minority and women money managers, brokers, and investment counselors, and report such progress annually to the JCPER and Governor's Minority Advocacy Commission. This language also presently exists in Chapter 104, RSMo.

Lastly, outdated language requiring the JCPER to conduct a study of pension, retirement and other benefits, and the taxation thereof, in relation to federal court decisions has been removed.

HB 1882 was estimated to have no material fiscal impact on the retirement system.

The Governor also signed into law House Bill 1217 (HB 1217) – legislation that prevents any participant of a public employee retirement plan covered under Chapter 105, RSMo who is convicted of certain felony offenses committed in connection with or related to the participant's duties as an employee, on or after the effective date of the section, from being eligible to receive any retirement benefits from the respective plan based on service rendered on or after the effective date of the section. The participant may still request a refund of the participant's plan contributions from the respective retirement system, including interest credited to the member's account.

Upon a finding of guilt, the court would be required to forward a notice of the court's finding to the appropriate retirement system in which the offender was a participant. The court would be required to make a determination on the value of the money, property, or services involved in committing the offense. The finding of guilt for any of the following felony offenses or a substantially similar offense provided under federal law would result in the participant's ineligibility for retirement benefits:

- Stealing under section 570.030, when such offense involved money, property, or services valued at $5,000 or more as determined by a court;
- Receiving stolen property under section 570.080 when such offense involved money, property, or services valued at $5,000 or more as determined by a court;
- Forgery under section 570.090;
- Counterfeiting under section 570.103;
- Bribery of a public servant under section 576.010; or
- Acceding to corruption under section 576.020.

HB 1217 also prohibits a public employee retirement benefit from being transferred or assigned, at law or in equity, subject to current retirement plan provisions. Under the legislation, the pension assignee is not allowed to use any device, scheme, transfer, or other artifice, including the deposit of such plan benefits into a joint account with a pension assignee or the authorization under a power of attorney or other instrument or document to access an account or otherwise obtain funds from an account to which plan benefits have been deposited.

Any contact or agreement made in violation of this new provision is considered void and all sums paid or collected by an assignee would be required to be returned. In addition, any benefit recipient, his or her guardian or conservator, or heir or beneficiary, or the attorney general would be able to bring an action to enforce the restitution authorized under this section within five years. HB 1217 further allows the attorney general to exercise the investigative and enforcement powers authorized under Chapter 407, RSMo including recovery of costs, nor shall it prohibit any action permitted under Chapter 409, RSMo.

As it affects MOSERS, sections 104.540.2 and 104.1054.2 currently prohibit assignments except for: 1) the collection of child support and maintenance, 2) life insurance proceeds, 3) contributions due from retirees for state-sponsored group life and medical insurance, and 4) contributions made to the Missouri state employees' charitable campaign. In addition, sections 104.312 and 104.1051 also permit retirement benefits to be divided and paid to a former spouse. The legislation would have no effect on these provisions.

Actuarial Present Values

June 30, 2014

MSEP

Actuarial Present Value June 30, 2014 for	Actuarial Present Value	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
Active members			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	$4,811,108,995	$640,062,176	$ 4,171,046,819
Disability benefits likely to be paid to present active members who become totally and permanently disabled	139,096,172	87,350,868	51,745,304
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	96,567,078	22,514,591	74,052,487
Separation benefits likely to be paid to present active members	397,547,019	186,558,720	210,988,299
Refunds likely to be paid to present active members	34,900,727	32,767,597	2,133,130
Active member totals	$5,479,219,991	$969,253,952	4,509,966,039
Members on leave of absence & LTD			
Service retirement benefits based on service rendered before the valuation date			90,259,542
Terminated-vested members			
Service retirement benefits based on service rendered before the valuation date			546,617,537
Retired lives			6,347,032,329
BackDROP installment payments incurred, but not yet paid			696,388
Total actuarial accrued liability			11,494,571,835
Actuarial value of assets			8,637,758,955
Unfunded actuarial accrued liability			$ 2,856,812,880
Funded ratio			75.1%

Actuarial Present Values

June 30, 2014

Judicial Plan

Actuarial Present Value June 30, 2014 for	Actuarial Present Value	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
Active members			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	$227,529,531	$59,139,375	$168,390,156
Disability benefits likely to be paid to present active members who become totally and permanently disabled	934,905	994,305	(59,400)
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	4,843,778	2,598,963	2,244,815
Refunds likely to be paid to present active members	56,937	51,220	5,717
Active member totals	$233,365,151	$62,783,863	170,581,288
Retired lives			285,124,436
Terminated-vested members			6,214,740
Member on leave of absence			0
Members on LTD			415,791
Total actuarial accrued liability			462,336,255
Actuarial value of assets			124,269,105
Unfunded actuarial accrued liability			$338,067,150
Funded ratio			26.9%

Investment Section

THE BOTTOM LINE

Investments generated $117 million over the benchmark this year.

Investment Section

Chief Investment Officer's Report

Missouri State Employees' Retirement System
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WE ARE HERE FOR YOUR BENEFIT.

October 17, 2014

Dear Members:

I am pleased to present the *Investment Section* of the MOSERS *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2014. A few highlights of the year follow:

- As of June 30, 2014, your pension fund had total assets of $9.3 billion.
- The investment portfolio generated approximately $1.5 billion in net earnings during the year representing a time-weighted rate of return based on market values of 19.2%, net of all fees and expenses.
- The portfolio return exceeded the policy benchmark return by 1.5%, adding nearly $117 million in value to the fund.
- Over the last 20 years, the portfolio has compounded at an annualized rate of 9.4% and generated over $2 billion more than the markets alone would have produced based on our asset allocation.

A Quick Review – FY14

During FY14, the markets dealt with a number of issues, including unrest in Syria and Ukraine, the U.S. government shut-down, the elimination of Fed quantitative easing, another debt ceiling and the induction of a new Fed Chair. As noted later in this section, despite this perceived turmoil, risk assets posted above average returns for the year. The asset classes most closely linked to rising economic growth performed the best, with global equities posting a return of 23.2% and commodities delivering 10.4%. The majority of the equity returns were realized in the first half of the year when economic conditions seemed to suggest stronger growth on the horizon. During that same period, interest rates rose resulting in losses in long treasuries and TIPS to the tune of (5.2)% and (0.4)%, respectively. Those losses were mitigated over the next six months by an interest rate reversal with long treasuries up 12.1% and TIPS up 4.0%, as moods shifted regarding the strength of the economy and the timing of future interest rate increases. Given the bond market's second half performance and a continued strong showing from equities and commodities, the risk-balanced portfolio was propelled to a very strong second half of the year, which resulted in total MOSERS performance well above the average equity-centric 60/40 blend and among the very best in the public fund universe.

Risk-Balanced Allocation – June 2012

Over the last couple of years I have alluded to and generally discussed a shift in our approach to portfolio management. A shift broadly identified as moving from a world where capital is allocated based on expected returns to one where capital is allocated based on expected risk and economic balance. Since we are now finished with the transition to the new approach, I would like to expand on what we have done and why I feel it will produce superior results over the long-term. At the heart of this shift is a belief that economic growth and inflation are the two most significant return drivers of the investments we manage. However, how the future will unfold regarding growth and inflation is simply unknowable. What we do know is which investments should perform well or poorly given the economic scenario playing out at any given point in time. History has provided us a guide in this regard and, more importantly, there are underlying fundamental reasons that allow us to corroborate actual performance with expected performance in these various economic climates. With this knowledge, our goal was to structure a portfolio that balanced risk across climates which, in turn, was expected to produce a more stable portfolio return through time. Stability in returns is critical in order to maintain stable contributions across generations of Missouri citizens.

Beginning the process of building a balanced portfolio required a decision regarding the more illiquid portion of the old portfolio which represented about 20% of the total capital. Ultimately, we determined that the illiquids portfolio would outperform public markets over time and therefore taking steps to liquidate it at discounts to net asset value made no sense. Once that decision was behind us, that left the remaining 80% of the capital to be managed using a risk-balanced approach (a strategy we call beta-balanced).

For the beta-balanced portion of the portfolio, MOSERS selected five broad market betas – inflation-indexed bonds, nominal bonds, alternative betas, global equities and commodities – having unique fundamental return characteristics. The matrix on page 69 shows the asset classes contained within our risk-balanced approach along with the economic environments in which they are expected to perform well.

Once the asset classes were decided upon, building the beta-balanced portfolio began in much the same way a more traditional asset allocation process would have been conducted. Estimates of expected return, risk, and correlations were input into a mean variance optimizer and an efficient frontier emerged. In our particular case, initially, we were most interested in the portfolio that generated the highest risk-adjusted return irrespective of a return hurdle. While the allocation referenced in the table below had the highest risk adjusted return (highest expected Sharpe ratio) based on our assumptions, its obvious problem was an expected return well below our 8% target.

Beta-Balanced High Sharpe Portfolio Unlevered

Asset Class	Capital Allocation Percentage
Inflation-indexed bonds - short duration	38.0%
Nominal bonds - long duration	22.0
Alternative beta - (carry, value, momentum, trend etc.)	19.0
Global equities	11.0
Commodities	10.0
Total	100.0%
Expected return	4.2%
Expected risk	6.2%

The next step in our process was where our philosophy started to diverge in a meaningful way from a more traditional asset allocation study like those conducted by most institutional investors. To address the low return problem of the unlevered beta-balanced portfolio, we needed to introduce a limited amount of explicit leverage.

The more common approach to solving this problem has been to reduce exposure to lower expected return assets like fixed income and increase exposure to higher expected return assets like equities and equity surrogates. The problem, as we saw it, with the traditional approach is that it leads you to a portfolio that becomes highly concentrated in equity risk and therefore highly dependent on equity performance to drive results. Returning to our economic environment matrix (page 69) we see that as long as the world is in a state of either rising growth or falling inflation this equity dependence is likely to produce acceptable results, however; when falling growth or rising inflation conditions exist and equities suffer, this portfolio will be significantly light or even void of assets expected to balance the decline in equities.

The MOSERS approach (as a result of introducing a limited amount of leverage across the high Sharpe portfolio) is expected to maximize diversification while still achieving our assumed rate of return. The trade offs that come with a more economically balanced or risk-balanced approach is dealing with various operational complexities associated with leverage and the simple, yet powerful, risk of being different.

Pension plans have used leverage in their portfolios for decades, but in most instances it has been contained inside a legal structure that caps losses at the amount invested. For instance, an investment in most publicly traded companies generates part of the return from leverage that rests on the company's balance sheets. An investment in a private equity limited partnership generates part of its return from the general partner's use of leverage in the purchase of the private companies they acquire, and an investment in a hedge fund partnership is likely to receive a portion of its return from leverage. A common approach to using leverage is found in the purchase of a home. A typical home buyer will invest 20% equity and take out a mortgage (leverage) for the balance. In this example, the homeowner has a five times levered investment. A 5% increase or decrease in the value of the home results in a 25% gain or loss on the buyer's capital.

As investment professionals, we know these things to be true but we don't spend much time, if any, talking publicly about them, and for good reason. Unbridled leverage has resulted in headline grabbing losses of capital and wealth for unsuspecting investors and managers for decades. This has resulted in a less than fully informed public throwing all levered strategies into the same "too risky" bucket and concluding that its use is an unacceptable practice, especially for something like a state-sponsored retirement plan. As a result, leverage has typically been exchanged for other forms of risk (like equity concentration) that are accepted by the masses. Through a track record of strong governance and a culture that removes politics from the investment management process, MOSERS was able to move beyond the leverage perception problem to see it for what it is: a tool. And just like any tool, success or failure from its use will largely be determined by those using it and the processes that have been put in place to guard against its improper use.

The final step in our allocation approach involved drawing conclusions about the operational aspects of levering up the portfolio in order to achieve our return objectives while simultaneously maintaining economic balance. In this phase of the process, it was necessary to analyze (i) how much leverage was needed in order to meet our return objective and what of that amount was deemed acceptable, (ii) the various methods of obtaining the leverage, (iii) how best to structure the leverage and with whom, (iv) processes for initial collateral pledging and daily mark-to-market and, (v) risk mitigation strategies to protect against extreme periods of market turmoil and fear when all risky assets decline as investors prefer the safety of cash. As one might imagine, each of these areas involved in-depth discussions with our board, consultants and external strategic partners in order to reach conclusions. For purposes of this report, I will only touch on the highlights.

It was determined that the beta-balanced portion of the portfolio needed to be levered approximately 1.1 times our capital in order to achieve our return objective. It was further determined through Monte-Carlo simulations, value at risk (VAR) analysis, and limiting positive impacts from diversification through correlation humbling, that this level of leverage was reasonable and prudent. As a result, the levered beta-balanced allocation was set as detailed in the table below. It is our belief that this portfolio is economically balanced and that each asset class is expected to contribute approximately 20% of the risk.

Beta-Balanced High Sharpe Portfolio Levered

Asset Class	Notional Allocation Percentage*
Inflation-indexed bonds - short duration	80.0%
Nominal bonds - long duration	46.0
Alternative beta - (carry, value, momentum, trend etc.)	39.0
Global equities	24.0
Commodities	21.0
Total	210.0%
Expected return (net of financing cost)	8.0%
Expected risk	13.0%

** The notional percentage adds up to 210%, which is the result from including the 1.1 times capital referred to above.*

Methods utilized to obtain the leverage involve exchange traded futures, total return swaps, reverse repurchase agreements and securities lending agreements. MOSERS has successfully employed all of these derivative instruments in the management of its portfolio for well over a decade. Decisions determining which of MOSERS' assets are being pledged as collateral at any point in time, counterparties being utilized, term structure of the leverage and collateral monitoring decisions are made jointly by internal staff and one of our external strategic partners who specializes in derivatives management. Other risk mitigation strategies built into the program include: a requirement to hold 25% cash against each dollar of leverage, providing immediate access to capital in extreme drawdown situations, a maximum leverage limit of 1.25 times capital, and ranges around neutral risk targets for each asset class.

As was mentioned earlier, the remaining 20% of the capital was already invested in assets that are expected to capture an illiquidity premium. Most investments in this portfolio will be locked up minimally for five years with ten plus year investments being common. Private investments across the capital structure including equity and debt are inherent in the illiquid portfolio. To acknowledge the importance of building a diversified portfolio across economic environments, the board adopted a policy that over time targets 50% of this portfolio to be employed in strategies that are expected to perform well in rising economic growth environments, while the other 50% is to be deployed in strategies that are expected to perform well during periods of rising inflation. Investment styles include buyout, distressed, venture, secondaries, debt origination and other forms of lending as examples. Some partnerships may be focused on economic activity outside the U.S. for returns. As a result, it is expected that this portfolio will have foreign currency exposure from time to time. It would also be expected that partnerships focused on various sectors of economic activity including consumer, real estate, natural resources, infrastructure, royalty streams etc. will be necessary in order to achieve the type of overall diversification this portfolio seeks.

As can be seen in the table below, when the beta-balanced portfolio, representing 80% of the capital with an expected return of 8%, is combined with the illiquids portfolio, representing 20% of the capital with an expected return of 9.75%, the total portfolio has an expected return of 8.15% with expected risk of 12.7%.

Beta-Balanced Levered + Illiquids

Asset Class	Capital Allocation Percentage
Inflation-indexed bonds - short duration	64.0%
Nominal bonds - long duration	37.0
Alternative beta - (carry, value, momentum, trend etc.)	31.0
Global equities	19.0
Commodities	17.0
Illiquids	20.0
Total	188.0%
Expected return	8.15%
Expected risk	12.7%

The Transition 2012-2104

The last two years could be described by the old saying, "time flies when you're having fun." It's hard to believe it has been two years since the board made the difficult decision to veer from the institutional investor pack by fully adopting a risk-balanced approach. Since that time we have been busy transitioning the portfolio into the new allocation. On June 30, 2014, the last piece of the transition puzzle was put into place. Two years ago we embarked on a journey, not knowing what the future would hold for the economy, the markets, or our new portfolio. However, we were convinced that our approach would provide a better long-term foundation from which to anchor in the face of uncertainty.

Getting from point A to point B could have taken on many forms, yet the one that made the most sense to us was the one that recognized how difficult market timing really is. Therefore, we made the decision to dollar-cost-average our way out of the old and into the new over a two-year period. Not surprisingly, in the first year of the transition, the markets tested our "risk-balanced resolve" with downside performance from the risk-balanced portfolio that would have only been expected in about 5% of the annual outcomes. I can't count the number of times in my career the market made me feel like it was just waiting on me to act so that it could clobber me over the head. I must admit, one year into the transition, we were feeling pretty clobbered. The good news at the time was that because of our decision to dollar cost average, we only had about 25% of the portfolio invested in the new approach. The remaining 75% was still invested in the equity-centric portfolio, which was doing very well due to the strong equity markets. While our overall return for FY13 of 10.4% lagged the equity-centric portfolio, the strong, relative showing of our approach in FY14 allows us to look back on the transition as uneventful in terms of its long-term impact on our results versus a more traditional portfolio.

Our Future – 2014 and Beyond

I feel strongly that MOSERS will be rewarded for its willingness to embrace the risk-balanced approach. I also believe that the biggest risk we face with this approach is the risk of being different. As those who know us have come to understand, we have never let being different stand in our way of doing what we believed was right. Excellence in this business can only be achieved by a willingness to stand alone. Our courage and conviction to stand alone is a result of a governance culture that has allowed MOSERS to build a stable, seasoned team of professionals pursuing an investment philosophy that finds at its cornerstones broad diversification, a contrarian style and strong risk management practices. It is these building blocks that have served the fund well for over two decades and will continue to serve it well into the future.

This report would not be complete without me personally thanking Executive Director Findlay, Board Chairman Smith and the entire board for their leadership and willingness to provide the flexibility and resources we need to pursue excellence in all that we do. The vision and support they have provided through time, most importantly during the dark days surrounding 2008, have been critical to the success we have enjoyed.

Best regards,

Rick Dahl
Chief Investment Officer

Investment Consultant's Report

Summit Strategies Group

October 17, 2014

The Board of Trustees
Missouri State Employees Retirement System
907 Wildwood Drive
Jefferson City, MO 65109

Dear Board Members:

It is my pleasure, once again, to address you through my annual letter. Of course, soaring equity markets always make it easier to remain cheerful and upbeat. In fact, investors in global equities, or any risk assets for that matter, have had a tremendous five-year run. The All Country World Index (ACWI) is a very good proxy for a basket of publicly traded companies around the world, compounding at 14.3% per year for the last five years. This means if you invested $100 in ACWI on July 1, 2009, five years later on June 30, 2014, you would have had $195. That's an outstanding five-year period, and results would have been even better if you simply left all your money in the stock market here in the good old U.S. of A. Over the same period, your $100 invested in the S&P 500 would have grown to $237. This five-year annualized return of 18.8% per year is truly remarkable. Less than 15% of the time over the last 85 years has five-year shareholder wealth compounded at this rate, and never at such low levels of volatility.

These results are wonderful and historic, but as is generally the case with all good things, it comes with a caveat or two. In this instance, there are two:

- **Caveat 1**: Results are always time period dependent. This is especially true of this year's numbers. It just so happens that the beginning of the most recent five-year result is July 2009 and we as investors had just gone through the financial crisis of 2008-2009. In the 10 months prior to July 2009, investors had lost the greatest amount of financial wealth in history. It's hard to believe that the Great Recession is now over five years past, but it is. So the remarkable five-year results we are talking about do not include the pain of 2008-2009. In fact, the bottom of the market occurred on March 9, 2009. So the five-year number reflects almost straight-up equity markets AFTER devastating losses.
- **Caveat 2**: Any time you use the words "historic" or "unprecedented" to describe a market result (good or bad), the wise investor wants to know: "Why? What's different this time? Why has this never happened before? What makes these five years so special in the context of history?" The answer is that things were very different this time. Because the conditions of the financial collapse were so severe and had the potential to be even worse, political and monetary leaders across the globe involved themselves in the economy more than at any time in the history of free market capitalism. Industries were taken over, government guarantees were made, interest rates were driven down, and central banks began printing money as never before. The goal was to avoid the next Great Depression. The ultimate result was purely speculation. No book had been written on the consequences of these types of actions because these types of actions had never before taken place.

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We know that as of now the results have been the avoidance of a global depression, record high corporate profits, and investors combing the financial world looking for return. Once it appeared the world was not going to end, it didn't take long for savers to grow impatient with the 0% return on their money that "safe" cash, money markets, and CDs delivered. So investors first bought up all the "safe" bonds (driving yields very low), then the "risky" bonds, then real estate, and now stocks.

So here we sit on top of several fabulous years of returns for investors of financial assets. We are thrilled that as of June 30, 2014, the portfolio returned 19.2% for one year, 13.2% for five years and 8.6% for ten years, annualized. We are thrilled that the portfolio outperformed its policy and strategy benchmarks and real return objective in each of these periods, and we are thrilled that these results continue to outperform 91% of large public funds in the short term (1 year) and 92% of them over the long term (10 years).

Our job, however, is not to report on the past, but to position MOSERS' $9.3 billion portfolio for the future. We look at a future in which our starting point is very low inflation, very low bond yields, and fairly- to fully-valued stocks. After five years of unprecedented government stimulation, we still have a U.S. economy that has failed to reach the government's desired growth rate in any year since they got involved, while in Europe, the economic situation is stuck well below where it was five years ago and flirting with depression. The relative global stability of the past several decades appears to have pressure points building again in the usual hot spots.

The joint proposal of investment staff and Summit to the board two years ago was, in our collective opinion, the most prudent course of action for the positioning of the portfolio to achieve its actuarial goals, and involved an overhaul of the entire investment approach. The board approved this recommendation and for the past two years staff and Summit have been working diligently to transition the portfolio. We are pleased to report that as of June 30, 2014, this transition is complete and the portfolio of the future is now in place. We will continue to implement it, review it, alter it, and hopefully improve it. This goes with the territory. No investment portfolio is ever a "set it and forget it" deal. There is plenty of work, always.

We presented for your consideration and you endorsed an investment program that we believe creates the highest probability of achieving MOSERS' funding goals over the long term. We once again broke from the "norm" and are forging new paths in institutional fund management. We've got a history of achieving great success using this approach. In terms of how we look, act and perform versus our peers and the industry "norm," this is our boldest move to-date. We are different. While the "norm" will largely go up and down with the equity markets, ours is a far more balanced approach, built to be less dependent on the whims of the stock market. Early results are outstanding on an absolute basis and quite favorable on a relative basis. This will not always be the case in the short term, and these will be the times that the pressure to move back to "normal" will be greatest. Please don't!

The beta-balanced approach has the highest probability of long-term success of any portfolio we've seen, as long as the commitment to it remains strong. And that's the BOTTOM LINE.

Thanks again for continuing to allow us to be part of this very successful story.

Sincerely,

Stephen P. Holmes, CFA

President

Investment Policy Summary

Guiding Principles

Critical to the financial security of present and future benefit recipients is the effectiveness and efficiency of the system's asset management program. The MOSERS Board of Trustees, charged with the responsibility for investing the assets of the system in a manner consistent with fiduciary standards set forth in the prudent person rule, has adopted the following fundamental principles to guide all investment-related decisions:

- Preserve the long-term corpus of the fund.
- Maximize total return within prudent risk parameters.
- Act in the exclusive interest of the system's members.

The investment policy summary serves as a reference point for management of system assets and outlines MOSERS' investment philosophy and practices. Investments within this report are presented on the basis of fair market value using a variety of sources such as appraisals, valuations of underlying companies and assets for limited partnerships and commingled funds, and through market values obtained from the investment custodian.

Investment Objective

In keeping with the three guiding principles, the board has adopted the following broad investment objectives:

- Develop a real return objective (RRO) that will keep contribution rates reasonably level over long periods of time, absent changes in actuarial assumptions.
- Establish a risk-balanced allocation policy that is expected to meet the RRO over long periods of time, while minimizing the impact of the fund's volatility on the contribution rate.
- Maximize the return per unit of cost of the investment program through the efficient use of internal and external resources.

Investment Beliefs

MOSERS' internal investment staff and external general asset consultant have arrived at investment beliefs, which are the foundation for implementation of the investment portfolio to achieve the board's objectives. These beliefs guide every decision made within MOSERS' portfolio. They are the fundamental concepts underlying the MOSERS investment program. These beliefs are:

- **Portfolio construction should focus first on the allocation and balancing of risk; it is the allocation of risk that drives portfolio returns.** While investment returns receive a lot of public attention, understanding and balancing risk across asset classes improves the consistency of returns for a given level of risk and thus provides more stability in the contribution rate for the employer. Returns are the end product, where risks are the ingredients.
- **Diversification is critical because the future is unknown.** Reliable diversification requires a fundamental understanding of the economic drivers of risk and return. MOSERS' policy portfolio has been built upon the premise that very little is known about what the future holds. Therefore it is rational to construct a portfolio that is believed to combat various economic conditions. The illustration below reflects various economic environments and the types of investments that should be expected to perform well in those environments.
- **Every investment should be examined in the context of its potential return from beta (market return) and alpha (value added return); while separation is not always possible, every effort should be made to distinguish the two distinct return components.** Beta is the return which is expected to be earned by investing passively within a specific asset class or compensated risk premium. Exposures to beta can be purchased cheaply, and over long periods of time, the beta return should be positive and coincide with the risk associated with a given asset class. In contrast, alpha is the return generated through a manager's ability to select particular investments that perform better than the asset class as a whole. Alpha is a zero-sum game.
- **Regardless of the source of the return, it is important to construct the portfolio based on a conscious decision to include a certain amount of beta exposure in the portfolio and a certain amount of alpha exposure.** By consciously selecting this balance within the portfolio, staff is better able to manage the risks of the portfolio while ensuring the RRO is achieved.

Economic Environments

	GROWTH	INFLATION
Rising	Equities • Commodities • Illiquids Alternative Betas	TIPS • Commodities
Falling	TIPS • Nominal Bonds	Equities • Nominal Bonds • Illiquids Alternative Betas

- **Flexibility to opportunistically alter the portfolio away from risk-balanced when markets are driven to extremes as a result of short-term economic cycles is an important portfolio management tool.** As a result of the cyclical nature of the economy, asset classes or investment strategies may be more or less attractive relative to others in given time frames, thus marginal flexibility in the allocation policy provides the system with the opportunity to capitalize on this within prudent risk constraints. Under circumstances where the valuations of a particular asset class are compelling, it may make sense to modify the portfolio's allocation at the margins in order to capitalize on attractively valued opportunities without exposing the fund to additional risk.

Roles and Responsibilities

Board of Trustees

The board of trustees bears the ultimate fiduciary responsibility for the investment of system assets. Members of the board must adhere to state law and prudent standards of diligence with respect to their duties as investment fiduciaries. Accordingly, they are required to discharge their duties in the interest of plan participants. They must also "act with the same care, skill, prudence, and diligence under prevailing circumstances that a prudent person, acting in a similar capacity and familiar with those matters, would use in the conduct of a similar enterprise with similar aims."[1] Specifically related to investments, the board is charged with the duties of establishing and maintaining broad policies and objectives for the investment program along with the recommendations of staff and the external asset consultants.

Executive Director

The executive director is appointed by and serves at the pleasure of the board. The board has given the executive director broad authority for planning, organizing, and administering the operations and investments of the system under broad policy guidance from the board. Specifically with regard to investments, the executive director is broadly responsible for the oversight of the investment program. The executive director must ensure that system assets are invested in accordance with the board's policies and that internal controls are in place to safeguard system assets. The executive director must also certify that all manager hiring and termination decisions were made in accordance with the board's governance policy. In addition, the executive director certifies strategic allocation decisions were made in accordance with the governance policy.

Chief Investment Officer and Internal Staff

The CIO serves at the pleasure of the executive director, yet has a direct line of communication with the board on investment-related issues. The CIO has primary responsibility for the overall direction of the investment program. The CIO works with the external asset consultants and executive director in advising the board on policies related to the investment program. The CIO has primary responsibility to make hiring and termination decisions related to money managers with the approval of the external general asset consultant. The CIO is also responsible for making strategic allocation decisions with the approval of the external general asset consultant. Other responsibilities of the CIO include monitoring the investment of system assets, oversight of external money managers and the internally managed portfolios, and keeping the board apprised of situations which merit their attention. The internal investment staff is accountable to the CIO.

External Asset Consultants

Summit Strategies Group of St. Louis, Missouri serves as the system's external general asset consultant and at the pleasure of the board. The primary duties of the external general asset consultant are to:

- Advise the board on policies related to the investment program.
- Provide a third-party perspective and level of oversight to the system's investment program.

The external general asset consultant must approve all manager hiring and termination decisions and strategic allocation decisions made by the CIO. The external general asset consultant provides advice and input to the CIO and internal investment staff on investment-related issues and money manager searches.

Blackstone Alternative Asset Management serves as the system's external hedge fund consultant at the pleasure of the board. The primary duties of the external hedge fund consultant are to:

- Advise the board on policies related to the hedge fund program.
- Provide a third-party perspective and level of oversight to the system's hedge fund investment program.

The external hedge fund consultant must approve all hedge fund manager hiring and termination decisions. The external hedge fund consultant provides advice and input to the CIO and internal investment staff on hedge fund program issues and manager searches.

[1] Section 105.688, RSMo - Investment Fiduciaries, Duties.

Chief Auditor

The chief auditor reports directly to the executive director and if, in the opinion of the chief auditor circumstances warrant, may report directly to the board. The chief auditor is independent of the system's investment operations and, among other things, is responsible for providing objective audit and review services for the investment operations. It is the chief auditor's objective to promote adequate and effective internal controls at a reasonable cost, which results in suggested improvements that will lead to economies and efficiencies in the system's investment operations.

Master Custodian

Bank of New York Mellon serves as the master custodian of the system's assets except in cases where investments are held in partnerships, commingled accounts, or unique asset classes where it is impossible for them to do so. The master custodian is responsible for maintaining the official book of records, providing performance reports, and serving as an additional layer of risk control in the safekeeping of system assets.

Asset Allocation

Determining the system's asset allocation is regarded as one of the most important decisions in the investment management process. The board, with advice from staff and the external general asset consultant, has developed a risk-weighted policy allocation that is designed to achieve the long-term required return objectives of the system, given certain risk constraints. The current allocation reflects the need for a diversified portfolio, which will perform well in a variety of economic conditions and will help reduce the portfolio's overall volatility. In determining the optimum mix of assets, the board considers five factors:

- The expected rate of return for each asset class.
- The expected risk of each asset class.
- The correlation between the rates of return of the asset classes.
- The investment objectives and risk constraints of the fund.
- The impact of the portfolio's volatility on the contribution rate.

While the board maintains a set policy allocation mix, they have taken steps to provide flexibility by granting authority to the CIO, with the approval of the external general asset consultants and certification of the executive director, to make strategic allocation decisions to capitalize on attractively valued opportunities within prudent risk constraints. This flexibility has allowed the system to take advantage of changing market conditions. The table below illustrates the policy asset allocation and ranges formally adopted by the board as of June 30, 2012.

Rebalancing

It is the responsibility of staff to ensure that the asset allocation adheres to the system's rebalancing policy. MOSERS utilizes a combination of cash market and exchange traded futures transactions to maintain the total fund's allocation at the broad policy level. Month end reviews are conducted to bring the portfolio back within allowable ranges of the broad policy targets.

Asset Allocation

Beta-Balanced Portfolio (80% of total capital)	Risk Allocation Policy	Risk Allocation Ranges[1]	Benchmark Index (weight)[2]
Global equity	20%	13% - 27%	MSCI ACWI[3] - (19%)
Nominal bonds	20%	13% - 27%	Barclays Long Treasury - (37%)
Inflation-indexed bonds	20%	13% - 27%	Barclays 1-10 TIPS - (64%)
Commodities	20%	13% - 27%	S&P GSCI[4] - (17%)
Alternative betas	20%	13% - 27%	AQR DELTA[5] - (31%)

Illiquids Portfolio[6] (20% of total capital)	Benchmark Index (weight)
Growth sensitive	S&P 500 + 3% (10%)
Inflation sensitive	S&P 500 + 3% (10%)

1 The board has granted the CIO the authority to alter the equal risk-weighted allocation policy. This authority exists within risk ranges as depicted in the table above. These risk ranges, like the policy allocation, are driven by the long-term volatility and correlation expectations for the five betas that make up the beta-balanced portfolio. The CIO will make these strategic allocation decisions away from the policy benchmark subject to consultation and agreement from the chief general asset consultant (CGAC).

2 Benchmarks are net of MOSERS' actual leveraging costs on borrowed assets with the exception of the hedge fund benchmark which is net of management fees.

3 Morgan Stanley Capital International All Country World Index (net dividends).

4 S&P Goldman Sachs Commodity Index (formerly Goldman Sachs Commodity Index).

5 A diversified risk-balanced portfolio of liquid hedge fund risk premia managed by AQR Capital net of management fees.

6 Illiquids portfolio upper limit of 27.5% of capital, no new commitments past 23%.

Risk Controls

MOSERS' investment program faces numerous risks; however, the primary risk to MOSERS is that the assets will not support the liabilities over long periods of time. In order to control this risk and numerous other risks that face the system, the board has taken the following steps, on an ongoing basis, to help protect the system:

- Actuarial valuations are performed each year to ensure the system is on track to meet the funding objectives of the plan. In addition, every five years an external audit of the actuary is conducted to ensure that the assumptions being made and calculation methods being utilized are resulting in properly computed liabilities.
- Asset/liability studies are conducted at least once every five years. The purpose of these studies is to ensure that the current portfolio design is structured to meet the system's liabilities. During these studies, investment expectations are also reexamined in more detail.
- A governance policy, which incorporates investment limitations, is in place to ensure that board policies are clearly identified. Within these documents, desired outcomes are identified, responsibilities for individuals are identified in relation to particular areas of the portfolio's management, and details are provided for measuring outcomes. Reporting requirements are clearly identified to ensure appropriate checks and balances are in place. In addition, annual performance audits are conducted to ensure the performance measurement tools and methodologies being utilized are proper.

Performance Objectives and Monitoring Process

Generating returns net of expenses equaling the RRO of 5.5% plus inflation remains the primary performance objective for the total fund over the long term.

The reason for the long-term focus on this objective is to preclude the temptation to overreact to events in the marketplace that have no relevance in the management of the relationship between the system's assets and liabilities. The resulting dilemma is the conflicting need to evaluate investment policy implementation decisions over shorter time frames while maintaining the longer-term focus necessary to manage and measure the fund's performance relative to the RRO. To address this problem, the board evaluates performance relative to policy and strategy benchmarks. This helps to evaluate the board's broad policy decisions and the staff and external consultant's implementation decisions. Policy benchmarks measure broad investment opportunities of each sub-asset class in which MOSERS has chosen to invest. The strategy benchmarks represent decisions made by the CIO to strategically deviate from the policy asset allocation for each sub-asset class. The return of the strategy benchmarks are determined based upon the actual weight of the asset class multiplied by the appropriate benchmark.

The policy and strategy benchmarks are used in the following manner to evaluate board and staff decisions:

- **Board Decisions:** The value added through board policy decisions is measured by the difference between the total fund policy benchmark return and the RRO. This difference captures the value added by the board through their policy asset allocation decisions relative to the return necessary to fund the system's liabilities. A policy benchmark return greater than the RRO reflects value added through board decisions. A policy benchmark return less than the RRO reflects losses or shortfalls in performance in funding the liabilities. These policy decisions are measured over long periods of time.
- **CIO and External Consultants' Decisions:** There are two components to decisions made by the CIO and external consultants, which are monitored by the board on an ongoing basis. They are: 1) strategic allocation decisions, and 2) implementation decisions.

Strategy decisions are made by the CIO, with the approval of the external general asset consultant and the review of the executive director to deviate from the policy benchmark weight. The difference between the strategy benchmark return and the policy benchmark return captures the value added by the CIO through strategic decisions to overweight or underweight asset allocations relative to the board's policy allocation decisions. A strategy benchmark return greater than the policy benchmark return reflects value added through the sub-asset class allocation decisions. A strategy benchmark return less than the policy benchmark return reflects losses to the fund's performance based upon strategy decisions. Strategy decisions should be measured over all periods of time with majority weight placed on outcomes that have occurred over a market cycle.

Implementation decisions are money manager selection choices made by the CIO with the approval of the appropriate external consultant and the certification of the executive director that the decision was made in accordance with the board's adopted governance policy. The value added through these decisions is measured by the difference between the actual portfolio return and the strategy benchmark return. This difference captures the value added through these external manager selection decisions. An actual portfolio return greater than the strategy benchmark return reflects value added through these external manager selection decisions. An actual portfolio return less than the strategy benchmark return reflects losses to the fund's performance based upon implementation decisions. Implementation decisions should be measured over all periods of time with a majority weight placed on outcomes that have occurred over a market cycle.

The board reviews performance information on a quarterly basis to help ensure adequate monitoring of the fund's overall performance objectives.

Total Fund Review

As of June 30, 2014, the MOSERS investment portfolio had a market value of $9.3 billion. The graph to the right illustrates the growth of MOSERS' portfolio since the system's inception.

Investment Performance

MOSERS' investments generated a return of 19.2%, net of fees, for FY14. The total fund return exceeded the 1-year policy benchmark of 17.7%. This additional 1.5% investment return produced $117 million over what would have been earned if the fund had been invested passively.

Investment Performance vs. the Required Rate of Return

The total fund investment return is compared to a required rate of return. The required rate of return is established by the board to determine how well the fund is performing over the long term in order to meet future plan obligations after accounting for inflation. The required rate of return for FY14 is equal to the RRO (5.5%) plus inflation. The best known measure of inflation is the Consumer Price Index (CPI).[2]

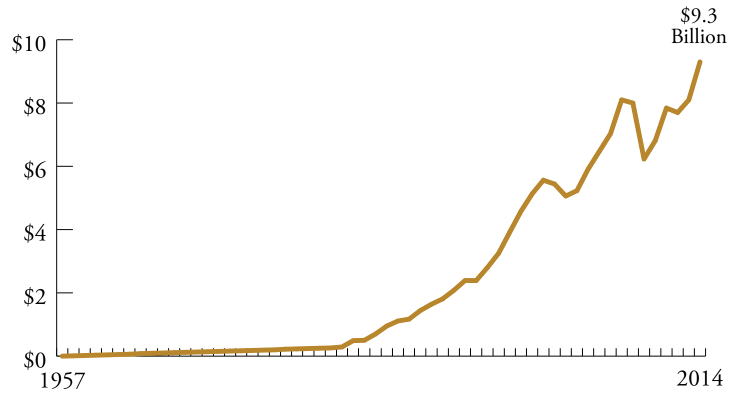
Given the randomness of the investment markets, the portfolio should not be expected to meet the required rate of return every year. A review of long periods of time is best to evaluate whether or not the total return has kept pace with the system's funding objectives.

The center bar chart reflects that MOSERS' investment returns have exceeded the required rate of return by 2.2% over the 20-year period ended June 30, 2014.[3]

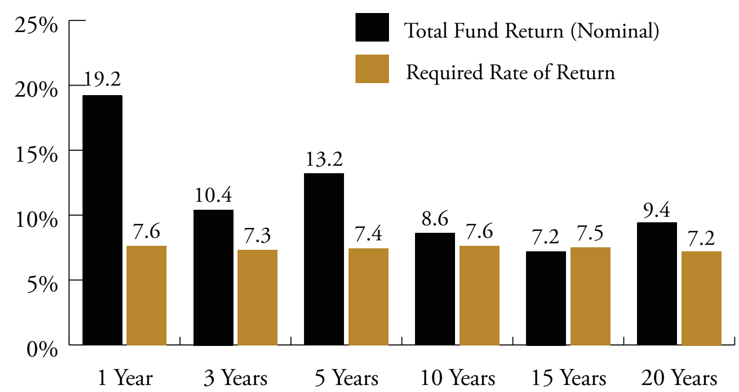
Investment Performance vs. Benchmark Comparisons

In addition to measuring performance relative to the required rate of return, the board also compares fund returns to the policy benchmark and the strategy benchmark. Returns for the total fund versus these benchmarks are displayed in the bar chart to the right.

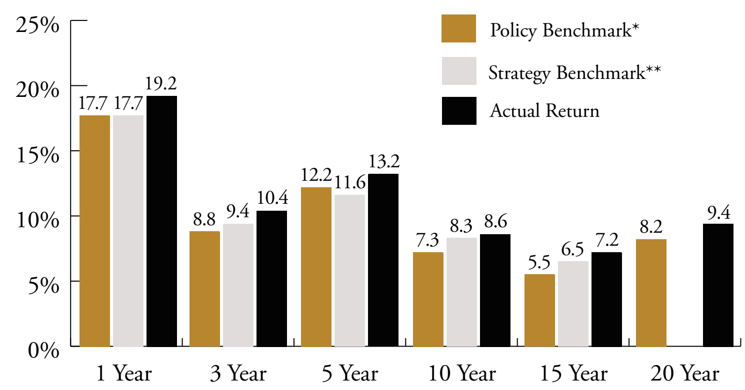
Total Fund Growth (In Billions)



Total Fund vs. Required Rate of Return



Total Fund Actual Return vs. Benchmark Returns



* As of June 30, 2014, the policy benchmark was comprised of the following components: 76.6% total beta-balanced policy benchmark, 19.2% total illiquids portfolio policy benchmark, and 4.2% total old portfolio policy benchmark.

** As of June 30, 2014, the strategy benchmark was comprised of the following components: 77.5% total beta-balanced strategy benchmark and 22.5% total illiquids portfolio policy benchmark. A strategy benchmark for the 20-year period is not available.

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[2] CPI Source: United States Department of Labor, Bureau of Labor Statistics (not seasonally adjusted).

[3] Performance returns are calculated using a time-weighted rate of return on market values.

The policy benchmark provides an indication of the returns that could have been achieved (excluding transaction costs) by a portfolio invested passively in the broad market with percentage weights allocated to each asset class in MOSERS' policy asset allocation. Comparison of the total return to the policy benchmark is a reflection of the extent to which the asset allocation kept pace with the system's funding objectives. The total fund 1-year actual performance exceeded its policy benchmark by 1.5%, with the actual 3-, 5-, 10-, 15-, and 20-year returns also exceeding the policy benchmarks by 1.6%, 1.0%, 1.3%, 1.7% and 1.2%, respectively.

The strategy benchmark is more narrowly defined and focuses on sub-asset class allocation decisions made by the CIO. By comparing the policy benchmark to the strategy benchmark, the board is able to determine the value added through strategic decisions (active management) made by the CIO. Value is created when the strategy benchmark returns exceed the policy benchmark returns.

Total Fund Actual Return vs. Benchmark Returns

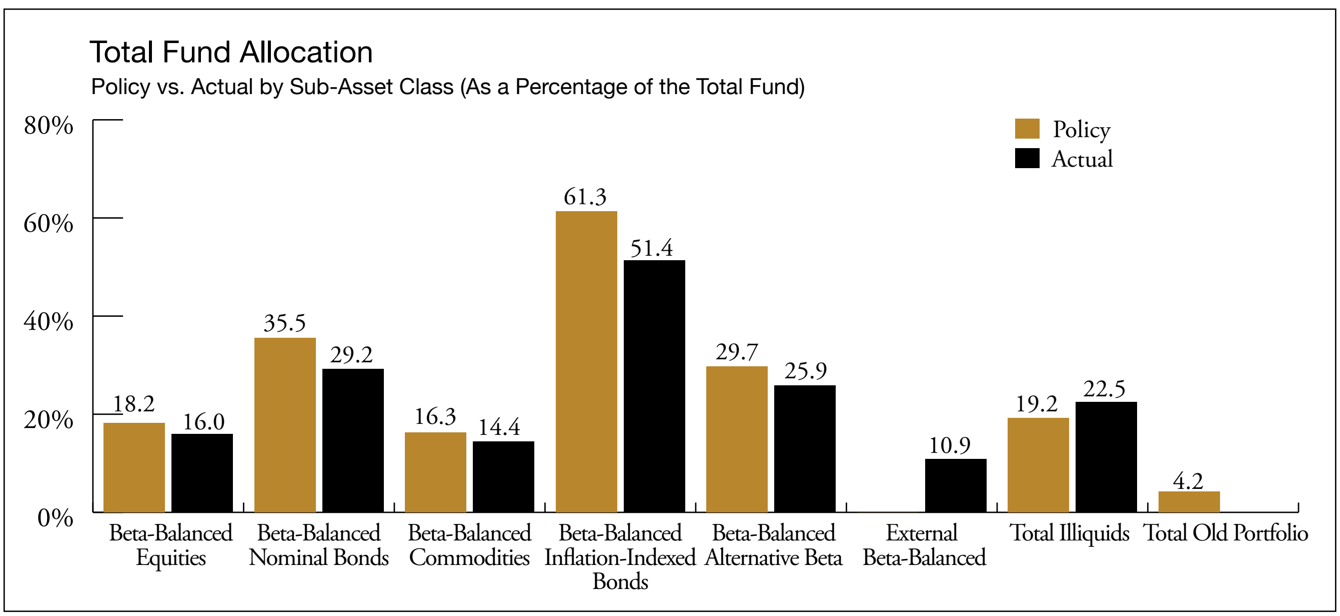
Similarly, by comparing the actual return to the strategy benchmark, the board will, over the long term, be able to judge the success or failure of the staff and the consultant in implementing the CIO's strategic decisions. The primary implementation decision is in determining which managers the fund should employ. Value is added from manager selection when the total fund return exceeds the strategy benchmark return.

Total Fund Policy Allocation Overview

As of June 30, 2014, the board's broad policy allocation mix was 76.6% beta-balanced, 19.2% illiquids, and 4.2% old portfolio. The policy target, as of June 30, 2014, for each sub-asset class, along with the actual strategic allocation to each type of investment is shown in the bar graph below.

The board has granted authority to the CIO to make strategic decisions. A strategic decision should be thought of as any decision that might cause MOSERS' actual portfolio to differ from the policy asset allocation. This has allowed MOSERS to capitalize on investment opportunities at the margin by overweighting asset classes that are viewed as "cheap" relative to their historical norm and underweighting asset classes that are "expensive" relative to their historical norm.

The asset allocation is built upon the belief that diversification is critical. The tables on the following page reflect the asset classes and their correlation to each other and the statistical performance data (net of fees) of the total fund as of June 30, 2014.



Total Fund - Correlation Table - 5 Years

	Beta-Balanced Equities	Beta-Balanced Nominal Bonds	Beta-Balanced Commodities	Beta-Balanced Inflation-Indexed Bonds	Beta-Balanced Alternative Beta	Illiquids
Beta-balanced equities	1.00					
Beta-balanced nominal bonds	(0.59)	1.00				
Beta-balanced commodities	0.62	(0.38)	1.00			
Beta-balanced inflation-indexed bonds	0.06	0.49	0.17	1.00		
Beta-balanced alternative beta	0.67	(0.26)	0.48	0.28	1.00	
Illiquids	0.55	(0.30)	0.40	0.20	0.45	1.00

Total Fund - Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year	15 Year	20 Year
Annualized return	19.2%	10.4%	13.2%	8.6%	7.2%	9.4%
Annualized standard deviation	4.51%	7.24%	7.39%	8.50%	9.23%	9.25%
Sharpe ratio	4.24	1.42	1.78	0.83	0.56	0.71
Excess return*	1.49%	1.57%	1.03%	1.33%	1.73%	1.21%
Beta*	0.82	0.79	0.75	0.73	0.80	0.83
Annualized alpha*	4.21%	3.20%	3.69%	3.01%	2.62%	2.37%
Correlation*	0.98	0.98	0.97	0.96	0.96	0.96
Value added in dollars**	$117M	$417M	$432M	$1.3B	$2.6B	$2.1B

* *As compared to the total fund policy benchmark.*

** *MOSERS earnings above what would have been earned if assets had been invested passively.*

Investment Advisors

Investment Advisors Name	Style	Portfolio Market Value
Actis	Illiquids - emerging markets	$ 52,231,316
Aeolus Capital Management	Beta-balanced - reinsurance	100,204,399
African Development Partners International	Illiquids - emerging markets	53,783,965
Alinda Capital Partners	Illiquids - infrastructure	32,600,599
American Industrial Partners	Illiquids - corporate buyout	20,752,190
AQR Capital Management	Beta-balanced - multi-strategy	330,260,858
AQR Capital Management	Beta-balanced - risk parity	443,824,249
Axiom Asia Private Capital Associates	Illiquids - emerging markets	40,327,047
Axxon Group Private Equity Assessoria	Illiquids - emerging markets	14,919,470
Baillie Gifford Overseas, Ltd.	Residual - international equity	40,362
Bayview Asset Management	Illiquids - opportunistic mortgages	68,489,393
BlackRock Financial Management	Residual - high yield	1,371,394
Blackstone Alternative Asset Management	Beta-balanced - fund-of-funds	409,311,076
Blackstone Real Estate Partners	Illiquids - active real estate	322,733,838
Blakeney Management	Beta-balanced - emerging markets	77,713,850
Brevan Howard Capital Management	Beta-balanced - global macro	85,118,296
Bridgepoint Capital Partners	Illiquids - corporate buyout	53,592,806
Bridgewater Associates	Beta-balanced - global macro	96,862,067
Bridgewater Associates	Beta-balanced - risk parity	489,238,333
Campbell Group	Illiquids - timberland	48,405,522
CarVal Investors	Illiquids - distressed real estate debt	45,100,000
Castlelake	Illiquids - special situations	32,708,298
Catalyst Capital Group	Illiquids - Canadian distressed debt	52,604,965
Catterton Partners	Illiquids - corporate buyout	46,400,865
Claren Road Asset Management	Beta-balanced - long/short - credit	112,468,500
Cornwall Capital	Beta-balanced - multi-strategy	61,964,633
Davidson Kempner Capital Management	Beta-balanced - event driven	88,080,819
DDJ Capital Management	Illiquids - distressed debt	2,319,037
DRI Capital	Illiquids - intellectual property	29,518,039
EIG Global Energy Partners	Illiquids - energy - mezzanine	76,962,228
Elliott Management Corporation	Beta-balanced - multi-strategy	105,301,809
Eminence Capital	Beta-balanced - long/short - equity	97,699,667
Empyrean Capital Partners	Beta-balanced - event driven	61,594,643
Eton Park Capital Management	Beta-balanced - multi-strategy	22,776,415
Farallon Capital Management	Beta-balanced - multi-strategy	4,766,703
Gateway Energy & Resource Holdings	Illiquids - energy - diversified	29,695,500
Glenview Capital Management	Beta-balanced - long/short - equity	38,178,673
Global Forest Partners	Illiquids - timberland	208,366,887
Harvest Fund Advisors	Illiquids - active MLP	184,594,011
HBK Capital Management	Beta-balanced - multi-strategy	100,106,488
Internal Staff	Beta-balanced - cash	2,260,774,547
JLL Partners	Illiquids - corporate buyout	59,100,350
King Street Capital Management	Beta-balanced - credit driven	6,086,203
Linden Capital Partners	Illiquids - corporate buyout	17,992,177
MAST Capital Management	Beta-balanced - credit driven	81,127,373
Merit Energy Company	Illiquids - energy - oil & gas	8,717,679
MHR Fund Management	Illiquids - distressed debt	95,226,126
Millennium Technology Value Partners	Illiquids - direct secondaries	15,566,518
Morant Wright Management, Ltd.	Residual - international equity	34,096
Nephila Capital	Beta-balanced - reinsurance	55,171,205
New Mountain Capital	Illiquids - corporate buyout	48,592,798
NISA Investment Advisors	Beta-balanced - derivatives	452,910,653

Investment Advisors continued on page 77

Investment Advisors continued from page 76

Investment Advisors Name	Style	Portfolio Market Value
Oaktree Capital Management	Illiquids - opportunistic European loans	1,764,958
Oaktree Capital Management	Illiquids - real estate	5,540,966
Oaktree Capital Management	Illiquids - corporate buyout	19,605,767
Oaktree Capital Management	Illiquids - distressed debt	54,634,533
Perry Partners International	Beta-balanced - event driven	50,222
Pershing Square Capital Management	Residual - long/short - credit	1,943,779
Pharo Management	Beta-balanced - global macro	123,842,580
Resource Management Service - Wildwood Timberlands	Illiquids - timberland	132,012,221
Silchester International Investors	Beta-balanced - international equity	848,372,945
Silver Creek Capital Management	Illiquids - special situations - fund-of-funds	46,014,256
Silver Lake Partners	Illiquids - corporate buyout	13,949,571
Silver Point Capital	Beta-balanced - credit driven	1,756,845
SIR Capital Management	Beta-balanced - equity market neutral	56,457,205
SIRIS Capital Group	Illiquids - corporate buyout	6,961,571
State Street Global Advisors	Beta-balanced - emerging markets	276,802,736
StepStone Group	Illiquids - corporate buyout - fund-of-funds	37,756,951
Stone Harbor Investment Partners	Beta-balanced - emerging market debt	59,596,657
TPG-Axon Capital	Residual - long/short - credit	1,993,733
Veritas Capital	Illiquids - corporate buyout	77,872,404
Viking Global Investors	Beta-balanced - long/short - equity	142,384,682
Visium Asset Management	Beta-balanced - long/short - equity	96,846,651
Wellington Hedge Management Company	Beta-balanced - long/short - equity	1,190,572
Miscellaneous (each less than $1M)		3,337,627
		$9,254,978,367

Total Fund - Top Ten Publicly Traded Separate Account Holdings

Ten Largest Holdings as of June 30, 2014*	Market Value	Percent of the Total Fund
U.S. Treasury Inflation Index Note - 0.125%, 2018	$216,466,104	2.34%
U.S. Treasury Inflation Index Note - 0.125%, 2017	197,668,105	2.14
U.S. Treasury Inflation Index Note - 0.625%, 2024	178,160,091	1.93
U.S. Treasury Inflation Index Note - 0.375%, 2023	177,991,196	1.92
U.S. Treasury Inflation Index Note - 0.125%, 2022	172,286,807	1.86
U.S. Treasury Inflation Index Note - 0.125%, 2016	162,934,542	1.76
U.S. Treasury Inflation Index Note - 0.625%, 2021	158,125,295	1.71
U.S. Treasury Inflation Index Note - 1.125%, 2021	155,098,964	1.68
U.S. Treasury Inflation Index Note - 0.125%, 2023	149,575,834	1.62
U.S. Treasury Inflation Index Note - 0.125%, 2022	145,181,187	1.57

* *For a complete list of holdings contact MOSERS.*

Investment Manager Fees

For the Year Ended June 30, 2014

	Total Fees	Manager Fees	Paid/Accrued Performance Fees
Beta-balanced portfolio			
Aeolus Property Catastrophe Spire Fund, LP	$ 85,211	$ 62,500	$ 22,711
AQR Absolute Return Institutional Fund, LP	1,426,754	604,632	822,122
AQR DELTA Sapphire Fund, LP	2,555,093	2,555,093	0
AQR Global Risk Premium Fund IV, LP	1,989,293	1,989,293	0
Blackstone Topaz Fund, LP	5,203,249	3,752,632	1,450,617
Blakeney Onyx, LP	1,797,075	1,797,075	0
Brevan Howard, LP	1,368,934	1,336,020	32,914
Brevan Howard Emerging Market Strategies Fund, LP	1,070,435	1,070,435	0
Bridgewater Associates - Diamond Ridge Fund, LLC	3,115,703	3,115,703	0
Bridgewater Associates - All Weather Fund (12 vol.), LLC	1,747,622	1,747,622	0
Claren Road Credit Partners, LP	2,107,401	1,656,256	451,145
COMAC Global Macro Fund, LP	264,769	264,769	0
Cornwall Domestic, LP	513,659	504,133	9,526
CQS ABS Feeder Fund, Ltd.	1,346,636	709,026	637,610
Davidson Kempner Institutional Partners, LP	3,677,316	1,066,591	2,610,725
Elliott International, Ltd.	4,229,985	1,482,608	2,747,377
Eminence Fund, Ltd.	3,171,962	1,142,624	2,029,338
Empyrean Capital Fund, LP	3,880,194	981,534	2,898,660
Eton Park Fund, LP	1,292,933	602,696	690,237
Farallon Capital Institutional Partners, LP	154,446	37,410	117,036
Glenview Capital Opportunity Fund, LP	1,406,037	43,749	1,362,288
HBK Offshore Fund, Ltd.	3,404,732	1,438,583	1,966,149
King Street Capital, LP	1,254,051	442,202	811,849
King Street Capital, Ltd.	16,057	13,844	2,213
MAST Credit Opportunities I, LP	1,192,970	856,891	336,079
MOSERS, Inc.	156	156	0
Nephila Triton Fund, LP	1,510,007	812,403	697,604
NISA Investment Advisors	3,747,278	3,747,278	0
Perry Partners, LP	701	701	0
Pharo Macro Fund, Ltd.	5,942,063	1,762,682	4,179,381
Silchester International Investors	3,513,029	3,513,029	0
Silver Point Capital Fund, LP	240,058	0	240,058
SSGA Emerging Markets	185,611	185,611	0
Standard Investment Research Hedged Equity Fund	2,568,885	954,584	1,614,301
Stone Harbor Investment Partners	455,332	455,332	0
Viking Global Equities III, Ltd.	8,328,728	1,994,530	6,334,198
Visium Balanced Fund, LP	3,280,076	1,831,919	1,448,157
Total beta-balanced managers	78,044,441	44,532,146	33,512,295
Illiquids portfolio			
Actis Emerging Markets III	805,778	805,778	0
Actis Emerging Markets IV	727,800	727,800	0
African Development Partners I, LLC	299,280	299,280	0
African Development Partners II, LLC	422,466	422,466	0
Alinda Infrastructure Fund I, LP	398,078	398,078	0
American Industrial Partners Capital Fund V, LP	690,000	690,000	0
Axiom Asia Private Capital Fund II, LP	649,147	400,000	249,147
Axiom Asia Private Capital Fund III, LP	500,000	500,000	0
Axxon Brazil Private Equity Fund II B, LP	897,532	897,532	0
Bayview Opportunity Domestic, LP	1,481,917	345,768	1,136,149
Bayview Opportunity Domestic III B, LP	2,719,416	1,000,000	1,719,416
Blackstone Real Estate Partners IV	2,237,948	0	2,237,948
Blackstone Real Estate Partners V	4,558,437	893,417	3,665,020
Blackstone Real Estate Partners VI	7,646,143	880,388	6,765,755
Blackstone Real Estate Partners VII	3,618,442	1,041,798	2,576,644
Bridgepoint Europe III A, LP	187,368	187,368	0

Investment Manager Fees continued on page 79

Investment Manager Fees continued from page 78

	Total Fees	Manager Fees	Paid/Accrued Performance Fees
Bridgepoint Europe IV B, LP	313,022	313,022	0
Campbell Timber Fund II A, LP	539,870	539,870	0
CarVal Investors CVI Global Value Fund A, LP - real estate	318,078	318,078	0
CarVal Investors CVI Global Value Fund A, LP - private debt	318,078	318,078	0
Castlelake Aviation II, LP	1,881,253	600,000	1,281,253
Catalyst Fund Ltd. Partnership III	2,758,122	938,808	1,819,314
Catalyst Fund Ltd. Partnership IV	759,875	494,376	265,499
Catterton Partners V, LP	109,716	109,716	0
Catterton Partners VI, LP	3,526,142	387,732	3,138,410
Catterton Partners VII, LP	595,313	595,313	0
DRI Capital - LSRC	467,839	64,637	403,202
DRI Capital - LSRC II	96,889	85,863	11,026
EIG Energy Fund XIV, LP	318,410	318,410	0
EIG Energy Fund XV, LP	481,882	481,882	0
EIG Energy Fund XVI, LP	201,283	201,283	0
Garnet Sky Investors Company, Ltd.	2,774,183	616,035	2,158,148
Gateway Energy & Resource Holdings, LLC	19,906	(8,251)	28,157
Global Forest Partners Institutional Investors Co., Ltd.	596,414	596,414	0
Harvest Fund Advisors, LLC	1,144,855	1,144,855	0
JLL Partners Fund V, LP	2,863,435	184,932	2,678,503
JLL Partners Fund VI, LP	3,418,609	1,007,930	2,410,679
Linden Capital Partners II, LP	231,674	231,674	0
Merit Energy Partners F-II, LP	172,420	172,420	0
MHR Institutional Partners II A, LP	3,040,454	174,093	2,866,361
MHR Institutional Partners III, LP	3,425,069	911,886	2,513,183
MHR Institutional Partners IV, LP	2,431	2,431	0
Millennium Technology Value Partners II	567,449	539,391	28,058
New Mountain Partners III, LP	1,915,900	75,555	1,840,345
OCM/GFI Power Opportunities Fund II, LP	(73,745)	16,899	(90,644)
OCM Opportunities Fund IV B, LP	5,640	0	5,640
OCM Opportunities Fund VII B, LP	(1,292,193)	374,743	(1,666,936)
OCM Opportunities Fund VIII B, LP	1,231,428	363,200	868,228
OCM Power Opportunities III, LP	1,212,100	405,532	806,568
OCM Real Estate Opportunities Fund III, LP	(214,782)	0	(214,782)
StepStone Capital Buyout Fund I, LP	193,579	50,415	143,164
StepStone Capital Buyout Fund II, LP	208,183	208,183	0
StepStone Opportunities Fund II, LP	(8,373)	59,511	(67,884)
Resource Management Service - Wildwood Timberlands, LLC	766,299	766,299	0
Silver Lake Partners II, LP	587,706	113,160	474,546
SIRIS Partners II, LP	621,602	0	621,602
The Veritas Capital Fund III, LP	2,069,007	0	2,069,007
The Veritas Capital Fund IV, LP	2,007,435	298,524	1,708,911
Total illiquids portfolio managers	68,012,209	23,562,572	44,449,637
Residual portfolio			
Ashmore Emerging Markets Debt and Currency Fund	473,003	473,003	0
BlackRock Financial Management	77,449	77,449	0
Glenview Institutional Partners, LP	2,698,638	979,455	1,719,183
Grantham, Mayo, Van Otterloo & Co.	325,390	325,390	0
Morant Wright Investment Management	211,786	211,786	0
Pershing Square, LP	1,735,736	511,299	1,224,437
TPG-Axon Partners (Offshore), Ltd.	13,332	13,332	0
Total residual portfolio managers	5,535,334	2,591,714	2,943,620
Grand totals	$151,591,984	$70,686,432	$80,905,552

Schedule of Investment Portfolios by Asset Class

As of June 30, 2014

	Fair Value	Percentage of Investments at Fair Value	Market Exposure	Percentage of Investments at Market Exposure
Internal beta-balanced				
Beta-balanced equities	$1,141,981,925	12.3%	$ 1,478,398,045	16.0%
Beta-balanced nominal bonds	675,049,156	7.3	2,703,402,112	29.2
Beta-balanced commodities	331,265,124	3.6	1,336,078,631	14.4
Beta-balanced inflation-indexed bonds	1,467,803,226	15.9	4,756,627,818	51.4
Beta-balanced hedge funds	2,533,006,937	27.3	2,399,184,991	25.9
Total internal beta-balanced	6,149,106,368	66.4	12,673,691,597	136.9
External beta-balanced	1,008,556,507	10.9	1,008,556,507	10.9
Illiquids				
Illiquids - growth	908,012,982	9.8	908,012,982	9.8
Illiquids - inflation	1,149,401,842	12.4	1,149,401,842	12.4
Illiquids - other	23,808,596	0.3	23,808,596	0.3
Total illiquids	2,081,223,420	22.5	2,081,223,420	22.5
Residual accounts from old portfolio	9,413,420	0.1	9,413,420	0.1
Cash reserve	6,678,652	0.1	0	0.0
Grand total	$9,254,978,367	100.0%	$15,772,884,944	170.4%

Reconciliation to *Statement of Fiduciary Net Position*	
Total portfolio value	$9,254,978,367
Reverse repurchase agreements	2,339,232,799
STIF	(2,247,013,704)
Uninvested cash	(534,369,575)
Interest and dividends receivable	(66,559,600)
Variation margin	(9,152,508)
AR securities sold	(965,732)
AP securities purchased	456,411,791
Fees payable	14,859,541
Securities lending liability	999,126
Miscellaneous difference	141
Investments per *Statement of Fiduciary Net Position*	$9,208,420,646

Schedule of Investment Results*

1-, 3-, 5-, 10-, 15 - and 20-Year Periods

	1 Year	3 Year	5 Year	10 Year	15 Year	20 Year
Total fund *						
MOSERS	**19.2%**	**10.4%**	**13.2%**	**8.6%**	**7.2%**	**9.4%**
Composite total return benchmark	**17.7%**	**8.8%**	**12.2%**	**7.3%**	**5.5%**	**8.2%**
*Beta-balanced***						
MOSERS	17.7%	N/A	N/A	N/A	N/A	N/A
Beta-balanced composite benchmark	14.3%	N/A	N/A	N/A	N/A	N/A
*Illiquids***						
MOSERS	19.1%	N/A	N/A	N/A	N/A	N/A
Illiquids benchmark	27.6%	N/A	N/A	N/A	N/A	N/A

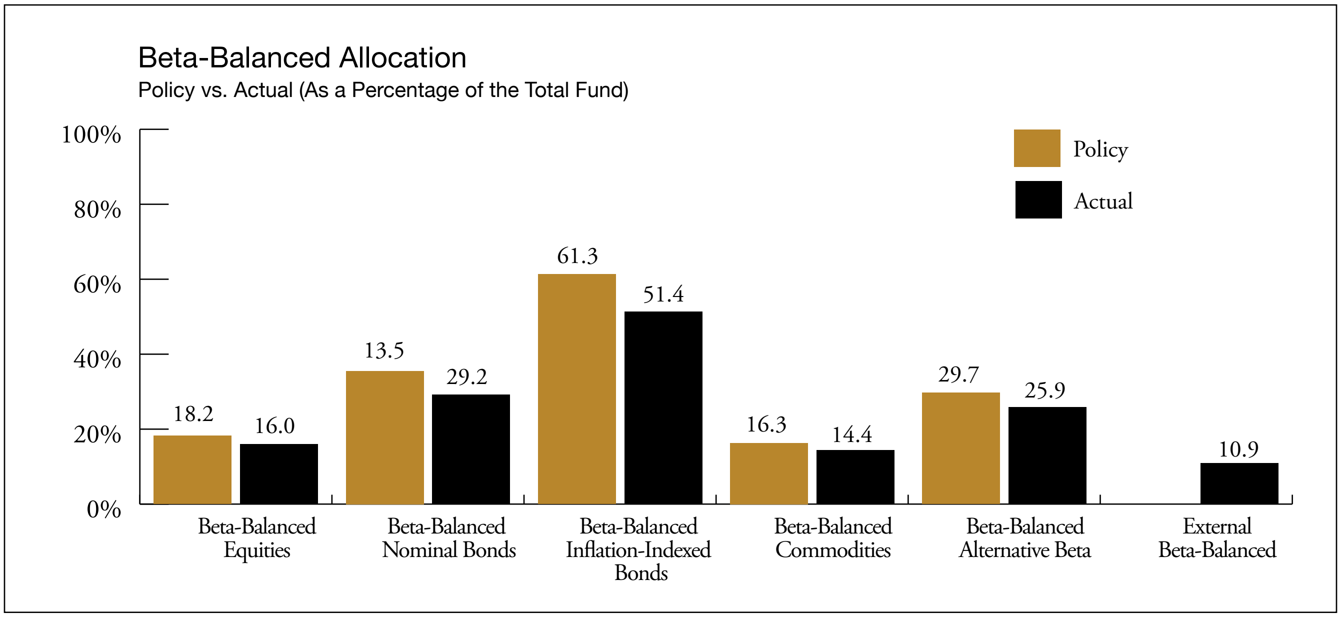
* *Time weighted rates of return on market values adjusted for cash flows.*
** *Beta-balanced inception date was September 1, 2012*

Total fund - As of June 30, 2014, the policy benchmark was comprised of the following components: 76.6% total beta-balanced policy benchmark, 19.2% total illiquids portfolio policy benchmark, and 4.2% total old portfolio policy benchmark. The individual asset class benchmarks, as listed below are used to generate the total fund policy benchmark.

- ***Beta-balanced*** - As of June 30, 2014, the total beta-balanced policy benchmark was comprised of the following components: 24% MSCI ACWI Net, 46% Barclays Long Treasuries, 21% S&P GSCI, 80% Barclays US TIPS 1-10 YR, and 39% AQR Delta. This program did not begin until September 2012.
- ***Illiquids*** - As of June 30, 2014, the illiquids benchmark was comprised of the following components: 100% S&P 500 + 3%. This program did not begin until September 2012.

Beta-Balanced

Asset Class Summary



As of June 30, 2014, the beta-balanced allocation returned 17.7% as a result of positive performance from every asset class. This is a 3.4% excess return relative to the policy benchmark performance of 14.4%.

Highlights

- External active managers contributed all of the 3.4% excess return relative to the policy benchmark. The external managers in the alternative beta allocation had a notable year, contributing 60% of all value added.
- While strategy was successful in the nominal treasury and alternative beta allocations, MOSERS' overweight to emerging markets in the global equities allocation offset the positive results and caused a 0.10% underperformance from strategy.

Portfolio Structure

The goal of the beta-balanced portfolio is to equalize the portfolio's risk exposure across economic environments through risk-balanced allocations to assets. The assets currently being used in the beta-balanced portfolio are global equities, U.S. nominal bonds, inflation-indexed bonds, commodities and alternative betas.

There is both an internal and external component to the beta-balanced portfolio. Bridgewater All Weather and AQR Global Risk Parity are utilized for the external portion of the risk-balanced portfolio. The internal portion is managed by staff utilizing NISA Investment Advisors to implement the trading and operational aspects of the program.

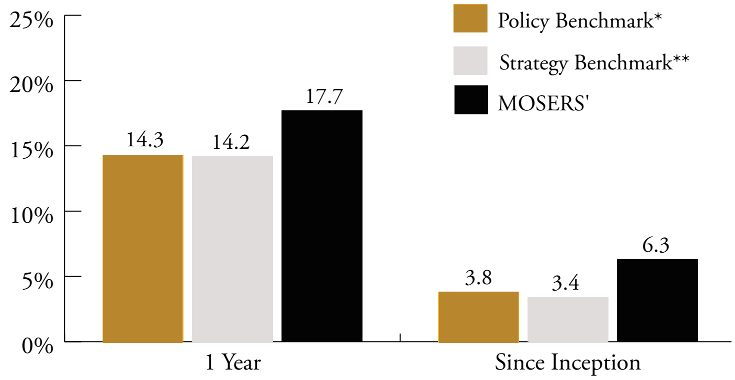
Market Overview

The markets had to contend with potential military operations in Syria and Ukraine, a U.S. government shut-down, the removal of quantitative easing (QE), another debt ceiling and a new Federal Reserve Chair. However, risk assets overcame these obstacles and posted above average returns for the year. The returns associated with corporate and economic risk performed well, with global equities returning 22.9%, 13.3% for REITS, 11.7% for high yield bonds, and 10.4% for commodities. While government bonds displayed reasonable performance, 6.3% for the long treasury benchmark and 3.6% for the intermediate TIPS index, their pattern was dramatically different than the constant upward trajectory of risk assets. The first six months of the year saw losses in long treasuries and TIPS, down (5.2)% and (0.4)%, respectively. Those losses were mitigated over the next six months by strong performance with long treasuries up 12.1% and TIPS up 4.0%. In general, risk assets performed well for the entire fiscal year, while interest rate only generated positive returns during the final six months.

Performance

For the fiscal year, the beta-balanced portfolio returned 17.7% versus 14.3% for the policy benchmark. These results represent higher-than-expected returns from markets, or beta, and value-added, or alpha. The balanced nature of the beta portfolio was detrimental during the first half of the year; a period when risk assets where positive and interest rates were negative performers. However, during the second half of the fiscal year, risk assets performed more modestly and interest rates picked up positive momentum, allowing continued portfolio growth into the end of the fiscal year. External managers contributed all of the 3.4% value added return. While the external beta-balanced managers did very well, the main contributor to value added was the hedge fund managers in the alternative beta allocation. The bar chart to the right illustrates actual performance as compared to the policy and strategy benchmarks since inception. A description of each asset class follows:

Beta-Balanced Return vs. Benchmark Returns



* As of June 30, 2014, the total beta-balanced policy benchmark was comprised of the following components: 24% MSCI ACWI Net, 46% Barclays Long Treasuries, 21% S&P GSCI, 80% Barclays U.S. TIPS 1-10 YR, and 39% AQR Delta. All policy return components are adjusted for financing cost associated with the beta- balanced program. This program did not begin until September 2012.

** As of June 30, 2014, the total beta-balanced strategy benchmark was comprised of the following components: 23.6% MSCI ACWI Net, 44.2% Barclays Long Treasuries, 21.0% S&P GSCI, 77.8% Barclays U.S. TIPS 1-10 YR, and 37.3% AQR Delta. All strategy return components are adjusted for financing cost associated with the beta-balanced program. This program did not begin until September 2012.

- **Equities:** The notional value (total value of a leveraged position's assets), of the equity portfolio on June 30, 2014, was $1,478,398,045, representing 16.0% of total notional exposure. For the fiscal year, the equity allocation returned 24.8% versus 23.2% for the global equity policy benchmark. While the strategy of being overweight emerging markets detracted from performance, out performance from external active management helped the equity portfolio exceed expectations. The external managers contributed about 10% of the total 3.4% excess return.
- **Long treasuries:** As of June 30, 2014, the notional value of the long treasury portfolio was $2,703,402,112, representing 29.2% of total notional exposure. For the fiscal year, the long treasury allocation returned 6.4% versus 6.1% for the long treasury policy benchmark. Being strategically short duration and preferring to own TIPS in lieu of nominal treasuries during the first half of the fiscal year positively contributed to the portfolio return.
- **TIPS:** As of June 30, 2014, the notional value of the TIPS portfolio was $4,756,627,818, representing 51.4% of total notional exposure. For the fiscal year, the TIPS allocation returned 3.3% versus 3.4% for the TIPS policy benchmark. There was no active management used in the portfolio this year, thus providing a return that closely matched the benchmark.
- **Commodities:** As of June 30, 2014, the notional value of the commodity portfolio was $1,336,078,631, representing 14.4% of total notional exposure. For the fiscal year, the commodity allocation returned 10.2% versus 10.3% for the commodity policy benchmark. The majority of the allocation was invested in the S&P GSCI index with the exception of a small strategic position in gold.
- **Alternative betas:** As of June 30, 2014, the notional value of the alternative beta portfolio was $2,399,184,991, representing 25.9% of total notional exposure. The alternative beta allocation returned 8.9% for the fiscal year versus 1.6% for alternative beta policy benchmark; thereby, contributing over 60% of the total 3.4% value added at the total fund level. The outperformance is entirely attributable to strong results from external hedge fund managers.
- **External beta-balanced:** This allocation is composed of AQR Global Risk Parity and Bridgewater All-Weather. As a portfolio they returned a strong 20.7% for the fiscal year and represented 10.9%, or $1,008,556,507, of market exposure. Similar to the internal portfolio, their strong performance was the result of positive returns from all asset classes. These two managers were responsible for over 20% of the 3.4% value added at total fund level.

Additional Portfolio Information

The tables, as titled below, show the brokerage activity and statistical performance that occurred within the beta-balanced portfolio in FY14. There were no commissions directed for soft dollar credits during the fiscal year ended June 30, 2014.

Beta-Balanced - Brokerage Activity

	Shares Traded	Volume of Trades	Commissions Paid
Credit Suisse (Europe) - London	$ 45,000	$ 508,469	$1,019
Barclays Capital - London	20,000	178,153	356
Credit Suisse (Europe) - London	10,000	104,044	209
Mizuho International PLC - London	9,500	84,107	168
Instinet Europe, Ltd. - London	5,000	52,521	105
Tachibaba Securities, Ltd. - Hong Kong	80,000	470,176	939
Totals	$169,500	$1,397,470	$2,796

Beta-Balanced - Statistical Performance

Portfolio Characteristics	1 Year	Since Inception (September 2012)
Return	17.7%	6.3%
Annualized standard deviation	6.0%	8.5%
Sharpe ratio	2.95	0.73
Excess return*	3.30%	2.50%
Beta*	1.02	1.04
Annualized alpha*	2.66%	2.25%
Correlation*	0.98	0.97

** As compared to the beta-balanced policy benchmark.*

Illiquids

Asset Class Summary

As of June 30, 2014, the illiquids investments portfolio returned 19.1%, net of fees with strong performance from both the growth sensitive and inflation sensitive sub-portfolios. While this one-year return is strong in absolute terms, it underperformed the return of the policy benchmark.

Highlights

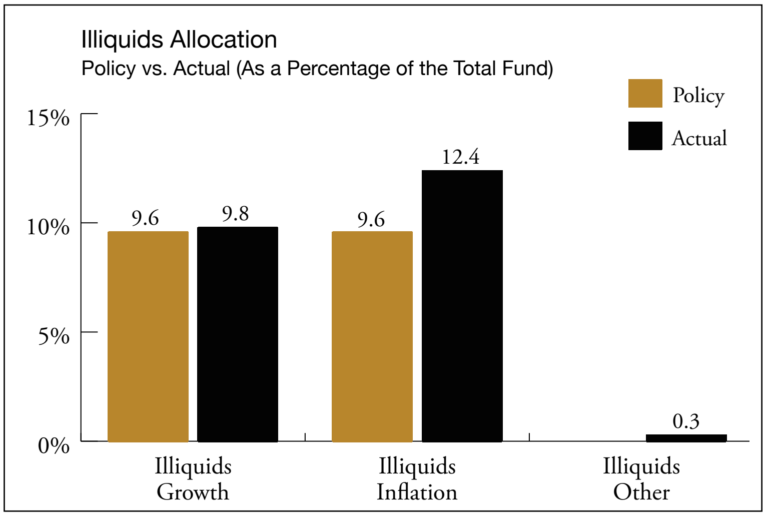
- The illiquids investments portfolio holds a broad set of investments comprising of a number of asset types, asset classes and geographic exposures. By holding a variety of assets, the portfolio is designed to reduce the risk of the illiquids allocation and to contribute to the diversification of the total portfolio.
- At the end of the fiscal year, illiquids investments made up 22.5% of the total portfolio, which was above its 20.0% target allocation.

Portfolio Structure

The illiquids investments portfolio, similar to the beta-balanced portfolio, seeks to distribute risk exposure across various economic environments. To achieve this objective, the portfolio is divided into two segments, one which invests in opportunities that will benefit from economic growth and the other which invests in opportunities that tend to perform well during periods of inflation.

This structure provides the flexibility to invest in a broad range of assets, some of which have characteristics that could place them in either the growth sensitive or inflation sensitive segment. The growth sensitive segment invests in asset categories such as private equity and private debt. Looking a bit deeper, these categories include: domestic buyout, European buyout, emerging market private equity and private debt in the U.S., Europe and Canada. The inflation sensitive segment holds assets in a number of asset classes including: real estate, timber, energy, infrastructure and royalties.

The illiquids investment strategy is implemented through a number of investments that are managed by 32 separate investment management firms. Many of the firms manage assets for the system within a single category; however, a few provide services across multiple asset categories.



Market Overview

The illiquids investments portfolio holds a variety of assets which, by design, are expected to behave differently from a risk/return perspective. The paragraphs below provide a brief description of the markets in which the illiquids investments portfolio has substantial exposure.

- **Private Investments:** Private investments, broadly, experienced a positive year. Private equity and distressed credit investments benefited from the positive performance of the public equity markets. The strong public markets led to a surge in initial public offerings, particularly in the U.S. and Europe. A number of these offerings involved companies that are backed by private equity investors seeking to exit at an opportune time. Fundraising for private investments was strong, as managers are capitalizing on increasing investor demand for alternative investments. This activity was particularly robust in both the U.S. and Europe, and slightly weaker in the Asia-Pacific region. Recent performance of private investments was well above expectations. For the one-year ended March 31, 2014, the ILPA Private Markets Benchmark-All Funds Index had a net return of 19.9%. This index is calculated by the Institutional Limited Partners Association, in partnership with Cambridge Associates, and lags public benchmarks due to reporting delays that are inherent to the asset class.
- **Real Estate:** Real estate is another asset class that covers a wide range of investment characteristics. Real estate investments vary by geography, type, stage of development, etc. The institutional real estate market, the portion of the real estate universe in which MOSERS invests, is represented by a number of segments, including office, industrial, retail, multi-family and hotel. The public real estate market, as represented by the Dow Jones U.S. Select REIT Index, an index of publicly traded domestic real estate investment trusts, performed well relative to its long-term average returning 13.3% for the year ended June 30, 2014. On the private side, as measured by the NCREIF Property Index, an index that is maintained by The National Council of Real Estate Investment Fiduciaries, returns were a bit lower.

For FY14, this index returned 11.2%, driven by strong results from the industrial and retail segments. The remaining segments; office, multi-family, and hotel, lagged somewhat.

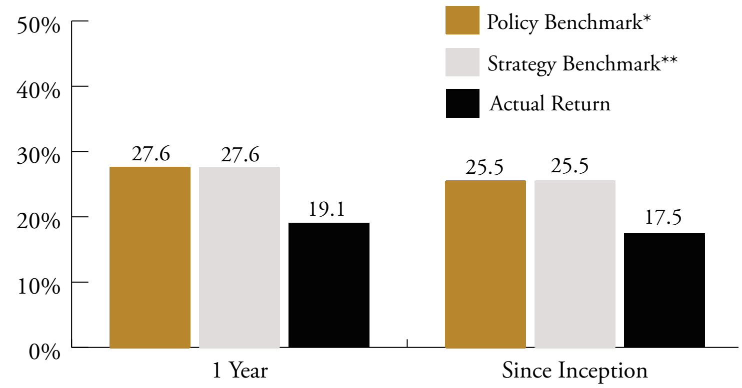
- **Timber:** Timber, as an asset class, possesses a number of characteristics that differentiate risk/return profile from that of other assets in the portfolio. Timber has an investment horizon that is long compared to other assets due to the extended growth cycle of trees. If properly managed, timber can provide investors with significant cash flow over long periods of time. Another differentiating characteristic of timber is that in periods of weak pricing for wood-related products, harvests can be postponed thereby allowing the tree to continue to grow and add volume, translating to additional revenue once prices recover. The NCREIF Timberland Index is one benchmark commonly used to measure the performance of private timberlands within the U.S. For FY14, the index returned 9.8%.
- **Energy:** Energy and energy-related infrastructure had a terrific year compared to the long term average as the energy landscape in North America continues to evolve. The year; however, was not without issues as geopolitical tensions in the Middle East weighed on the sector. The energy market, as measured by the Standard & Poor's Energy Select Sector Index, which consists of large U.S. energy companies with global operations, returned 27.8% for the year. Energy infrastructure also had a big year. The Standard & Poor's Master Limited Partnership Index, an index of publicly traded partnerships, returned 24.9% for the year ended June 30, 2014.

Performance

Benchmarking a portfolio of illiquids investments has always been a challenge. In order for a benchmark to be meaningful, it should satisfy a number of criteria including being identifiable in advance, investable, the ability to be calculated frequently, and consistent with the manager's investment style. Generally, in the case of private markets, these criteria are not met.

Despite a number of shortfalls, a common method to benchmark illiquids investments is to add a risk premium to an index of publicly

Illiquids Return vs. Benchmark Returns



* As of June 30, 2014, the illiquids policy benchmark was comprised of the following components: 100% S&P 500 + 3%. This progam did not begin until September 2012.

** As of June 30, 2014, the illiquids policy benchmark was comprised of the following components: 100% S&P 500 + 3%. This program did not begin until September 2012.

traded equities, such as the S&P 500 Index. The rationale behind this approach is that an investor in private securities should expect to receive a premium above the return provided by the public markets. This incremental return is expected to compensate investors for the added risk of illiquidity associated with private investments.

For the fiscal year, the illiquids investments portfolio returned 19.1% (net of fees), as illustrated in the bar chart above, well above the system's long-term annualized expected return of 9.5% to 10.0%. While the portfolio's results were very strong from an absolute return standpoint, it was not able to keep pace with the S&P 500 Index-plus 3%, the policy benchmark, which returned 27.6% for the fiscal year. When evaluating the performance of illiquids investments it is important to use a long time frame. By looking at performance over extended periods, the short-term volatility associated with public markets is reduced and it provides time for managers of illiquids assets to build and possibly sell the asset resulting in more accurate valuations. Over a longer period, such as the latest ten years ending June 30, 2014, the portfolio returned 10.2%, which is just under the policy index return of 10.4%. It should be noted that the 10-year policy index is a blend of asset class policy indexes that were in place over this period.

As previously mentioned, the illiquids investments portfolio is made up of two distinct parts, a growth sensitive segment and an inflation sensitive segment. Additional information on each segment follows:

- **Growth Sensitive:** On June 30, 2014, the market value of the growth sensitive portfolio was $908,012,982, representing 9.8% of the total fund's capital. For the fiscal year, this segment returned 19.6%, net of fees, well above the expected annual rate of return for assets of this type. Of the various asset categories included in this sub-portfolio, domestic buyout private equity investments, on average, stood out as high performers.

- **Inflation Sensitive:** At the end of the fiscal year, the market value of the inflation sensitive portfolio was $1,149,401,842, representing 12.4% of the total fund's capital. For the 2014 fiscal year, the segment returned 18.8%, net of fees, well above the expected long-term annual return for assets such as these. The inflation sensitive segment contains a diverse set of investments, so a number of categories contributed to a strong return. Among them are infrastructure, royalties, international timber and recent vintage real estate investments.

The objective of the illiquids investment portfolio is to perform well during multiple economic environments. By combining assets with differing characteristics, the illiquids investments portfolio is positioned to generate an attractive return while providing diversification benefits to the total fund.

Additional Portfolio Information

The tables, as titled below, show the brokerage activity and statistical performance that occurred within the illiquids portfolio in FY14.

Illiquids - Brokerage Activity

	Shares Traded	Volume of Trades	Commissions Paid
Robert W Baird & Co., Inc.	20,928	$ 937,919	$ 477
Barclays Capital	184,769	6,427,455	1,975
Benchmark Company, LLC	5,953	339,390	179
BNY Convergex	3,350	108,322	98
BTIG, LLC	32,365	1,228,466	971
Cantor Fitzgerald & Co., Inc.	8,500	273,665	255
Citigroup Global Markets, Inc.	81,087	4,247,415	2,412
Credit Suisse Securities	14,335	850,102	143
Deutsche Bank Securities, Inc.	7,211	312,387	216
FBR Capital Markets & Company	5,484	119,903	165
Instinet Corporation	28,095	476,532	281
JP Morgan Securities, Inc.	31,222	1,179,487	651
Janney Montgomery Scott	7,819	254,504	235
Jonestrading Institutional Services, LLC	47,250	1,436,614	1,418
Liquidnet, Inc.	81,304	3,516,148	1,626
Merlin Securities, LLC	1,895,855	79,823,968	19,675
Merrill Lynch Pierce Fenner Smith, Inc.	9,123	321,282	274
Morgan Stanley & Co., Inc.	14,253	355,306	428
Raymond James & Associates, Inc.	60,587	1,752,580	1,818
Scotia Capital (USA), Inc.	808	43,109	24
UBS Securities, LLC	10,265	432,492	308
USCA Securities, LLC	121,683	4,396,153	3,650
Wedbush Morgan Securities, Inc.	14,998	246,778	450
Weeden & Co., LP	44,014	2,361,584	1,292
Wells Fargo Securities, LLC	79,583	3,202,577	2,387
	2,810,841	$114,644,138	$41,408

Illiquids - Statistical Performance

Portfolio Characteristics	1 Year	Since Inception (September 2012)
Return	19.1%	17.5%
Annualized standard deviation	3.6%	3.2%
Sharpe ratio	5.23	5.52
Excess return*	(8.55)%	(8.04)%
Beta*	0.18	0.13
Annualized Alpha*	13.24%	13.27%
Correlation*	0.46	0.34

* *As compared to the beta-balanced policy benchmark.*

Securities Lending Program

During the fiscal year ending June 30, 2014, MOSERS earned net income of $530,974 through its securities lending program. MOSERS lends its domestic equity, international equity and fixed income securities through Deutsche Bank which manages the program in an agent capacity. In an agent lending program, the agent lender is responsible for making the loans to various broker-dealers, investing the cash collateral associated with the loaned securities, marking the loans and collateral to market on a daily basis, and, in most cases, indemnifying the lender against the default of a broker-dealer to whom they have loaned securities on behalf of the beneficial owner.

In FY14, income from domestic equity and fixed income decreased due to a decrease in the average lendable balance and lending margin, and international equity income decreased as there were no securities to lend during the period. The tables as titled below show the activity for the securities lending program.

Domestic Equity

Year	Average Lendable	Average on Loan	Average Utilization	Lending Margin (basis points)	Net Income
FY14	$187,154,236	$ 62,768,614	33.5%	22.6	$ 422,422
FY13	238,024,131	69,543,634	29.2	25.1	596,941
FY12	424,041,044	145,373,164	34.3	19.1	810,972
FY11	376,047,357	111,263,248	29.6	16.5	619,648
FY10	321,114,801	83,944,408	26.1	26.9	864,401
FY09	307,082,718	114,261,769	37.2	52.0	1,596,245
FY08	440,025,347	195,971,154	44.5	36.6	1,611,536
FY07	711,856,029	281,338,681	39.5	14.0	994,416
FY06	856,712,658	377,314,359	44.0	14.2	1,218,245
FY05	775,821,287	247,175,198	31.9	8.4	648,218

International Equity

Year	Average Lendable	Average on Loan	Average Utilization	Lending Margin (basis points)	Net Income
FY14	$ 0	$ 0	0.0%	0.0	$ 0
FY13	192,359,434	49,525,171	25.7	5.6	108,379
FY12	309,052,299	47,666,253	15.4	7.5	230,655
FY11	320,082,404	88,623,017	27.7	10.4	333,000
FY10	277,251,343	19,736,528	7.1	4.0	109,946
FY09	342,215,198	32,267,851	9.4	14.9	510,622
FY08	467,893,205	56,944,925	12.2	15.5	726,565
FY07	485,230,034	41,033,858	8.5	8.1	395,017
FY06	483,512,648	48,077,237	9.9	12.9	605,315
FY05	360,790,809	39,881,555	11.1	13.2	476,226

Fixed Income

Year	Average Lendable	Average on Loan	Average Utilization	Lending Margin (basis points)	Net Income
FY14	$ 247,256,630	$185,527,243	75.0%	4.4	$ 108,552
FY13	622,620,959	427,442,773	68.7	5.1	315,060
FY12	776,256,144	516,553,974	66.5	6.4	496,074
FY11	805,579,308	505,690,676	62.8	7.2	581,875
FY10	836,242,270	190,547,907	22.8	2.8	230,031
FY09	859,512,525	517,356,516	60.2	43.3	3,722,523
FY08	1,082,813,165	894,372,380	82.6	56.4	6,104,526
FY07	950,069,746	695,743,093	73.2	15.5	1,469,860
FY06	1,183,366,350	776,959,063	65.7	15.7	1,853,181
FY05	1,091,262,589	776,038,981	71.1	19.5	2,126,695

Statistical Section

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Statistical Section

Summary

Plan Membership

Membership in the pension trusts administered by MOSERS increased by 2,075. Active members decreased by 207, retired members and their beneficiaries increased by 1,875, and terminated-vested members increased by 407. Membership data for the last ten years ended June 30, 2014, can be found on page 134. The location of benefit recipients, showing that the majority remain in the state of Missouri after retirement, is depicted on page 135.

Valuation Assets vs Pension Liabilities

The charts on 130-133 graphically represent the funding progress of the pension plans for the 10 years ended June 30, 2014. The bar charts in the middle of the pages show the portion of the pension liabilities that are unfunded compared to the portion covered by assets in the trust funds. The bar charts on the bottom of the pages illustrate the funded ratio of the plans for the ten years ended June 30, 2014.

The existence of the unfunded actuarial accrued liabilities is not necessarily an indication of financial problems, but the fluctuations are important and must be monitored and controlled.

The remainder of this section contains various statistical and historical data considered useful in evaluating the condition of the plans.

All nonaccounting data is taken from MOSERS' internal sources except for that information which is derived from the actuarial valuations (pages 130-134, 138, and 148-149). Member data may differ between some schedules since the valuations are performed using data as of May 31 each year.

Changes in Net Position

Last Ten Fiscal Years

	2005	2006	2007	2008
MSEP Plan				
Additions				
Employer contributions	$ 194,524,059	$227,233,195	$ 239,488,751	$ 249,770,156
Employee contributions	0	0	0	0
Member service purchases	4,122,001	3,072,315	3,460,923	3,085,133
Service transfers in	29,397	161,613	172,936	38,069
Investment income (net of expenses)	727,341,314	728,526,971	1,283,573,438	110,627,355
Other	1,231,658	501,512	542,266	572,274
Total additions to plan net position	927,248,429	959,495,606	1,527,238,314	364,092,987
Deductions				
Benefits	367,431,297	400,169,563	447,240,771	479,853,891
Refunds	0	1,341	0	0
Service transfers out	199,201	133,866	51,980	251,443
Administrative expenses	6,228,609	6,486,597	6,689,710	6,950,878
Total deductions from plan net position	373,859,107	406,791,367	453,982,461	487,056,212
Transfer from ALJLAP plan	18,157,148	0	0	0
Change in net position	$ 571,546,470	$552,704,239	$1,073,255,853	$(122,963,225)
ALJLAP Plan				
Additions				
Employer contributions	$ 1,124,924	$ 0	$ 0	$ 0
Investment income (net of expenses)	2,057,375	0	0	0
Other	3,484	0	0	0
Total additions to plan net position	3,185,783	0	0	0
Deductions				
Benefits	749,197	0	0	0
Administrative expenses	17,618	0	0	0
Total deductions from plan net position	766,815	0	0	0
Transfer to MSEP plan	(18,157,148)	0	0	0
Change in net position	$ (15,738,180)	$ 0	$ 0	$ 0
Judicial Plan				
Additions				
Employer contributions	$ 21,852,985	$ 22,401,569	$ 23,745,467	$ 26,215,309
Employee contributions	0	0	0	0
Investment income (net of expenses)	5,409,107	5,933,531	11,356,312	1,043,940
Other	9,160	4,085	4,798	5,506
Total additions to plan net position	27,271,252	28,339,185	35,106,577	27,264,755
Deductions				
Benefits	18,396,397	19,091,587	20,595,504	22,058,085
Administrative expenses	46,321	52,830	59,187	66,880
Total deductions from plan net position	18,442,718	19,144,417	20,654,691	22,124,965
Change in net position	$ 8,828,534	$ 9,194,768	$ 14,451,886	$ 5,139,790
Internal Service Fund				
Operating revenues				
Premium receipts	$ 27,305,305	$ 26,415,236	$ 27,101,931	$ 27,957,666
Deferred compensation receipts	0	0	0	60,393,973
Miscellaneous income	436,489	436,501	436,502	536,493
Total operating revenues	27,741,794	26,851,737	27,538,433	88,888,132
Operating expenses				
Premium disbursements	27,271,948	26,379,919	27,063,815	27,927,265
Deferred compensation disbursements	0	0	0	60,371,802
Premium refunds	33,357	35,317	38,116	30,401
Administrative expenses	466,531	487,699	527,040	708,100
Total operating expenses	27,771,836	26,902,935	27,628,971	89,037,568
Non-operating revenues				
Investment income	49,326	85,124	117,729	77,396
Change in net position	$ 19,284	$ 33,926	$ 27,191	$ (72,040)

2009	2010	2011	2012	2013	2014
$ 252,105,008	$251,226,187	$263,418,048	$ 263,373,924	$ 274,655,284	$ 326,370,336
0	0	599,761	4,955,399	9,698,883	14,025,328
3,235,999	3,576,954	2,814,551	2,869,085	3,475,123	2,909,423
28,075	10,009	142,248	2,675,339	2,446,627	2,252,206
(1,508,376,715)	859,898,512	1,395,677,299	158,102,123	778,008,348	1,484,709,539
619,060	639,901	659,474	448,463	489,193	450,453
(1,252,388,573)	1,115,351,563	1,663,311,381	432,424,333	1,068,773,458	1,830,717,285
511,466,555	543,284,289	597,424,954	611,522,451	646,708,308	677,097,411
0	3,106	0	123,709	622,341	1,421,856
0	462,970	17,745,828	588,180	1,911,665	1,916,840
7,088,483	7,064,544	7,054,581	7,017,057	7,575,883	7,336,922
518,555,038	550,814,909	622,225,363	619,251,397	656,818,197	687,773,029
0	0	0	0	0	0
$(1,770,943,611)	$564,536,654	$1,041,086,018	$(186,827,064)	$ 411,955,261	$1,142,944,256
$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
$ 27,725,882	$ 27,029,198	$ 27,702,682	$ 26,324,526	$ 28,330,649	$ 29,264,877
0	0	59,958	149,859	211,936	294,810
(15,847,382)	9,909,718	17,460,050	2,061,916	10,724,252	21,388,261
6,504	7,374	8,250	5,849	6,743	6,489
11,885,004	36,946,290	45,230,940	28,542,150	39,273,580	50,954,437
23,232,088	24,230,545	25,488,531	26,821,412	27,802,871	29,406,625
74,473	81,414	88,253	91,514	104,428	105,693
23,306,561	24,311,959	25,576,784	26,912,926	27,907,299	29,512,318
$ (11,421,557)	$ 12,634,331	$ 19,654,156	$ 1,629,224	$ 11,366,281	$ 21,442,119
$ 28,990,057	$ 29,098,799	$ 28,829,638	$ 28,578,326	$ 28,961,637	$ 29,563,054
75,661,047	69,143,267	54,221,226	17,500,476	0	1,000,000
1,027,380	1,039,369	981,404	608,187	480,120	480,120
105,678,484	99,281,435	84,032,268	46,686,989	29,441,757	31,043,174
28,968,981	29,077,825	28,804,638	28,556,036	28,930,950	29,544,110
75,683,218	69,143,267	54,221,226	17,500,476	0	0
21,076	20,974	24,999	22,291	30,687	18,942
819,581	797,020	826,809	778,529	805,457	755,945
105,492,856	99,039,086	83,877,672	46,857,332	29,767,094	30,319,997
20,755	9,816	11,071	11,068	12,075	11,886
$ 206,383	$ 252,165	$ 165,667	$ (159,275)	$ (313,262)	$ 736,063

Deductions from Net Position for Benefits and Refunds by Type

Last Ten Fiscal Years

MSEP

	FY05	FY06	FY07	FY08	FY09
Type of benefit					
Retirement	$314,623,851	$338,449,307	$366,185,990	$393,328,057	$421,847,017
Survivors	24,251,854	26,944,984	29,340,464	31,894,702	34,615,979
Disability	82,246	62,324	42,273	36,825	33,812
Lump sum	342,720	459,398	556,568	454,643	272,189
BackDROP and service transfers	28,130,626	34,253,550	51,115,476	54,139,664	54,697,557
Total benefits	$367,431,297	$400,169,563	$447,240,771	$479,853,891	$511,466,554
Refunds	$ 0	$ 1,341	$ 0	$ 0	$ 0

	FY10	FY11	FY12	FY13	FY14
Type of benefit					
Retirement	$448,880,110	$476,841,741	$504,555,055	$533,962,630	$560,553,490
Survivors	37,718,898	39,968,601	42,963,959	46,659,381	49,922,170
Disability	33,403	29,191	29,503	27,255	22,468
Lump sum	409,787	293,147	229,650	191,320	286,184
BackDROP and service transfers	56,705,060	98,038,103	64,332,464	67,779,388	68,229,937
Total benefits	$543,747,258	$615,170,783	$612,110,631	$648,619,974	$679,014,249
Refunds	$ 3,106	$ 0	$ 123,709	$ 622,341	$ 1,421,856

ALJLAP*

	FY05
Type of benefit	
Retirement	$616,370
Survivors	132,827
Total benefits	$749,197

**ALJLAP Plan transitioned to the MSEP Plan in fiscal year 2005*

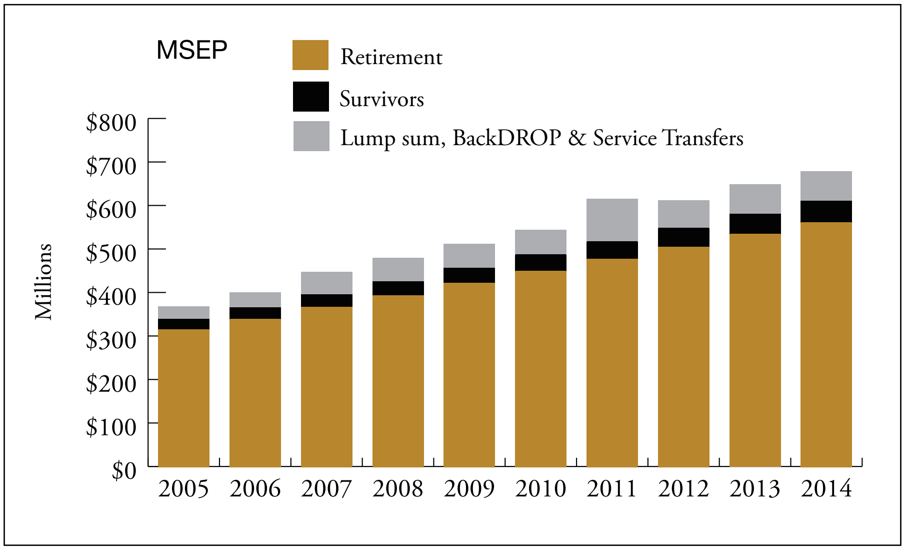
Judicial Plan

	FY05	FY06	FY07	FY08	FY09
Type of benefit					
Retirement	$15,513,182	$15,989,341	$17,135,426	$18,342,676	$19,143,753
Survivors	2,883,215	3,070,746	3,433,078	3,715,409	4,088,335
Disability	0	31,500	27,000	0	0
Total benefits	$18,396,397	$19,091,587	$20,595,504	$22,058,085	$23,232,088

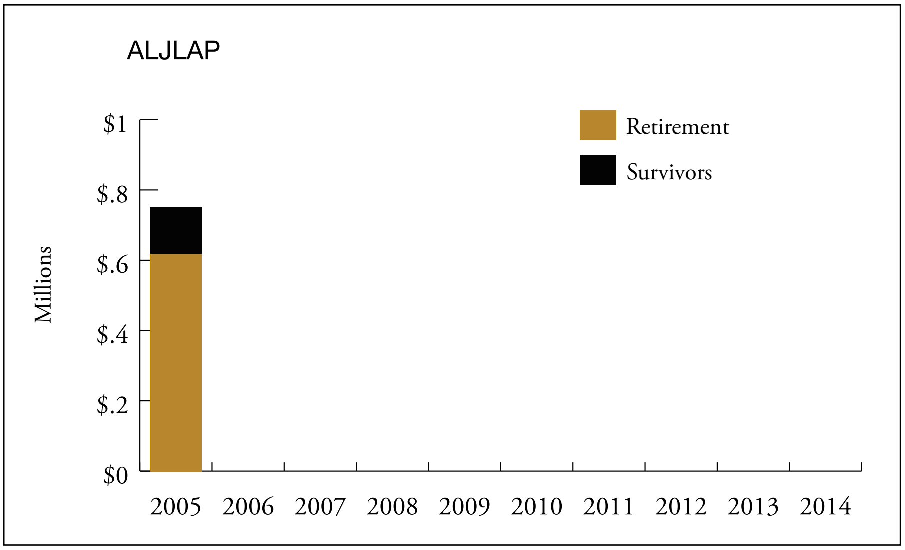
	FY10	FY11	FY12	FY13	FY14
Type of benefit					
Retirement	$19,784,720	$21,025,904	$22,284,844	$23,123,707	$24,609,421
Survivors	4,445,825	4,462,627	4,536,569	4,679,169	4,797,204
Disability	0	0	0	0	0
Total benefits	$24,230,545	$25,488,531	$26,821,413	$27,802,876	$29,406,625

Deductions from Net Position for Benefits and Refunds by Type

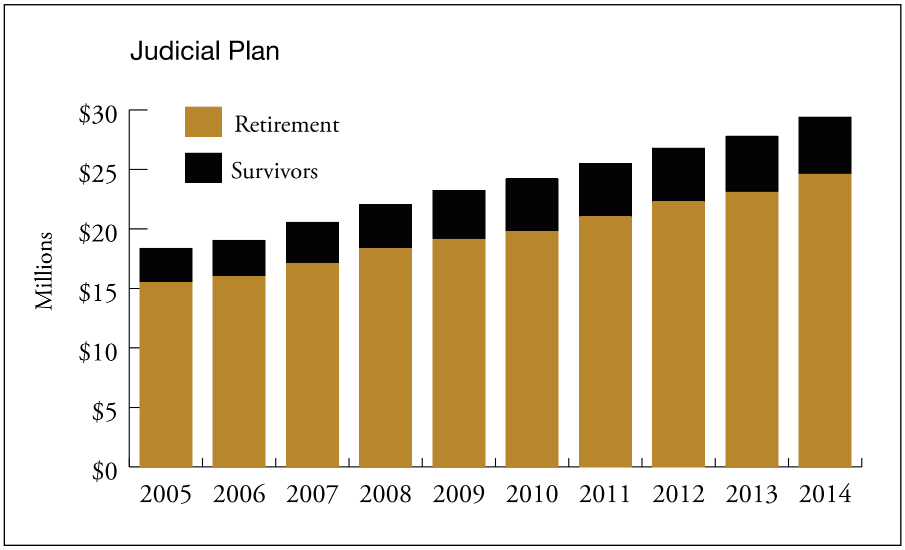
Last Ten Fiscal Years



Disability benefits are included, but amounts are too minimal to display visually in graph.



The ALJLAP was transitioned to the MSEP during FY05.



Disability benefits are included, but amounts are too minimal to display visually in graph.

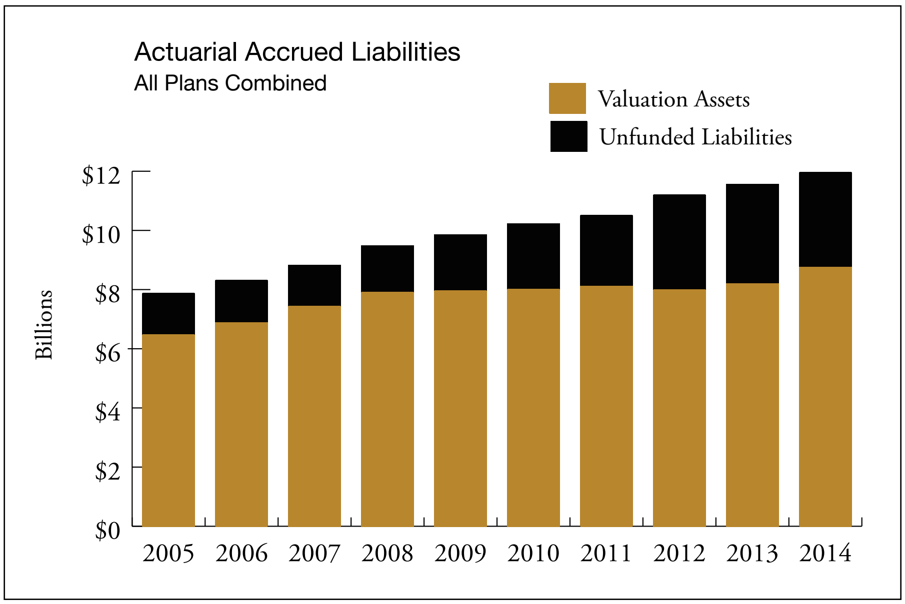
Pension Trust Funds

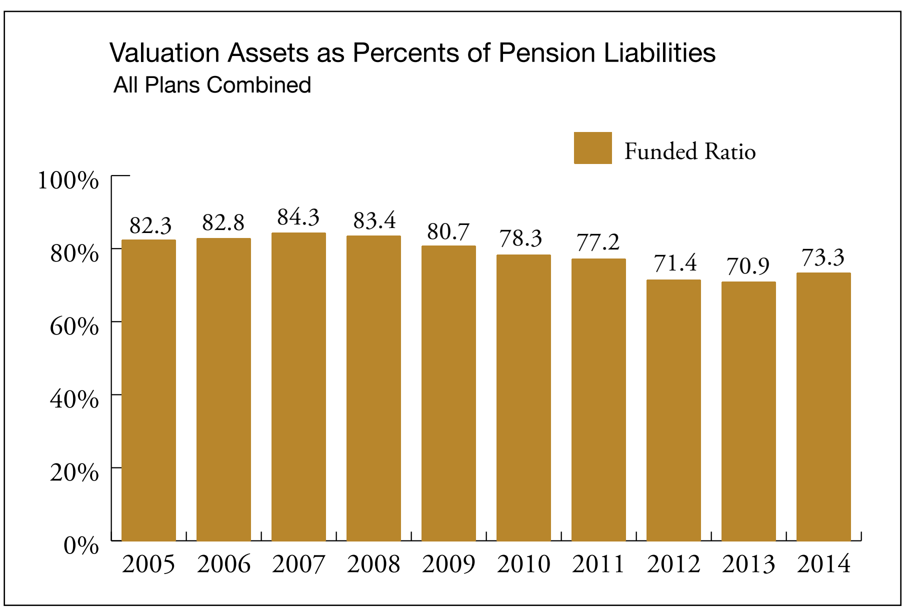
Valuation Assets (Smoothed Market) vs. Pension Liabilities

Ten Years Ended June 30, 2014

All Plans Combined

	Dollars in Billions			
Fiscal Year	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	Funded Ratios
2005	$6.4795	$1.3908	$ 7.8703	82.3%
2006	6.8883	1.4339	8.3222	82.8
2007	7.4392	1.3879	8.8271	84.3
2008	7.9117	1.5714	9.4831	83.4
2009	7.9574	1.9065	9.8639	80.7
2010	8.0123	2.2228	10.2352	78.3
2011	8.1210	2.3960	10.5170	77.2
2012	7.9994	3.2076	11.2070	71.4
2013	8.2075	3.3624	11.5700	70.9
2014	8.7621	3.1949	11.9569	73.3





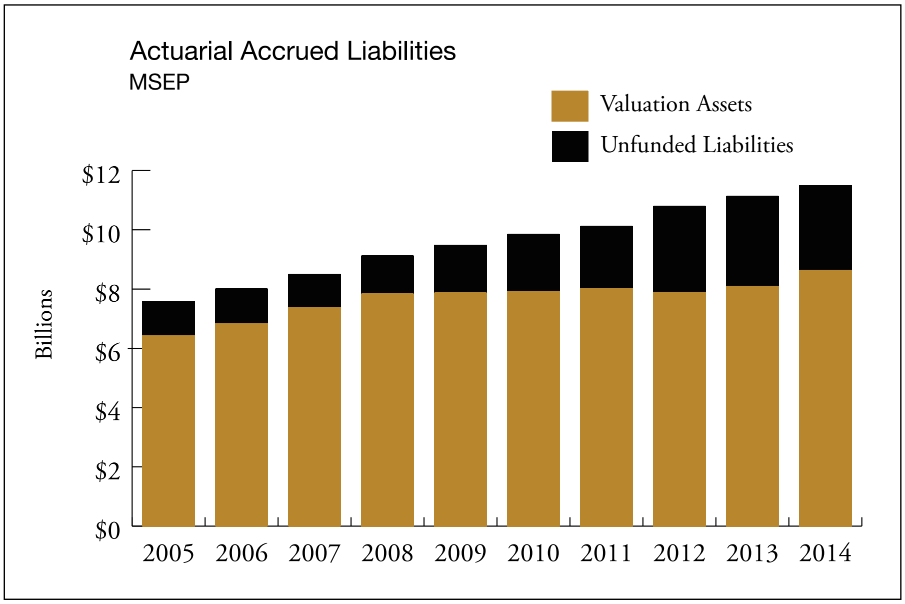
Pension Trust Funds

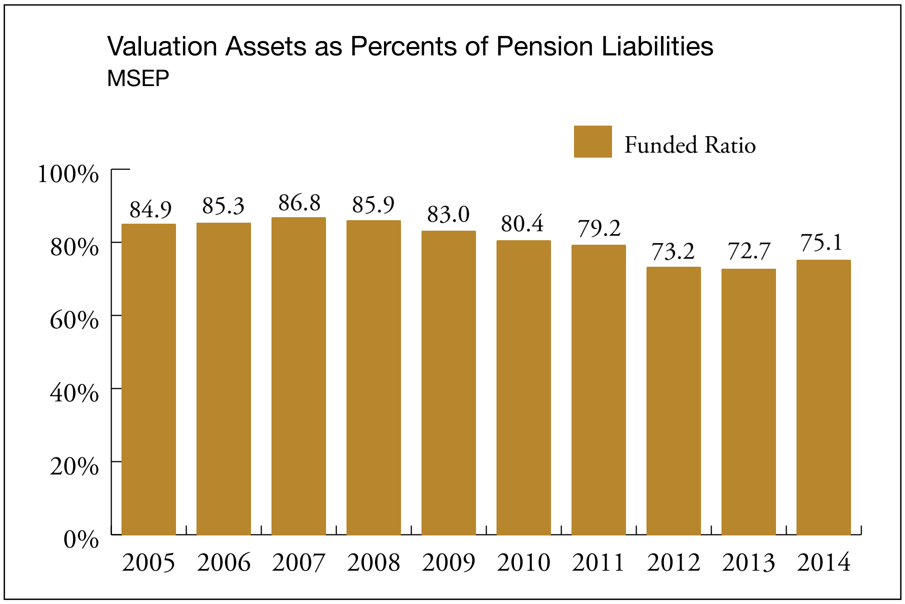
Valuation Assets (Smoothed Market) vs. Pension Liabilities

Ten Years Ended June 30, 2014

MSEP

Fiscal Year	Dollars in Billions: Valuation Assets	Unfunded Liabilities	Accrued Liabilities	Funded Ratios
2005	$6.4353	$1.1427	$ 7.5780	84.9%
2006	6.8366	1.1766	8.0132	85.3%
2007	7.3773	1.1231	8.5004	86.8%
2008	7.8385	1.2898	9.1283	85.9%
2009	7.8761	1.6187	9.4948	83.0%
2010	7.9234	1.9300	9.8532	80.4%
2011	8.0225	2.1010	10.1240	79.2%
2012	7.8972	2.8965	10.7937	73.2%
2013	8.0964	3.0382	11.1346	72.7%
2014	8.6378	2.8568	11.4946	75.1%





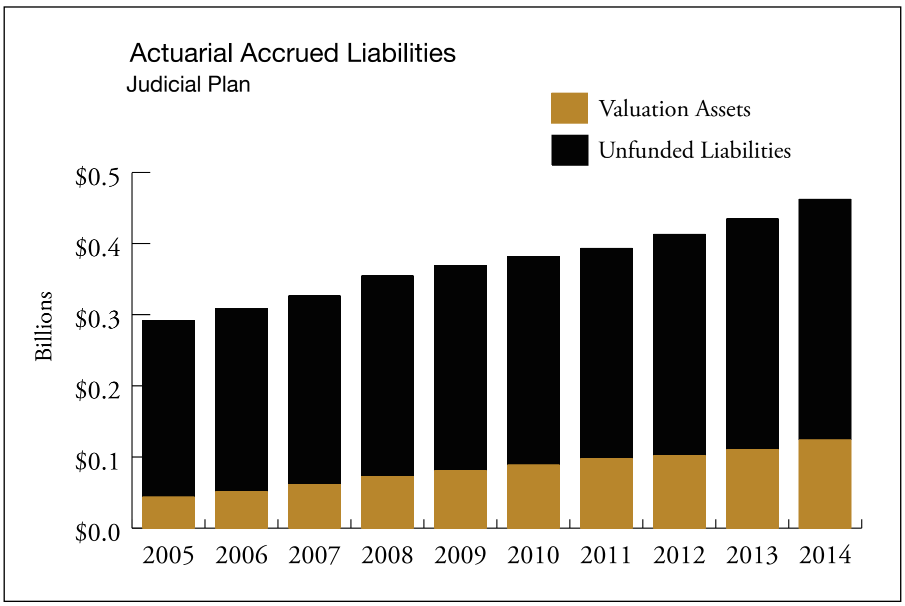
Pension Trust Funds

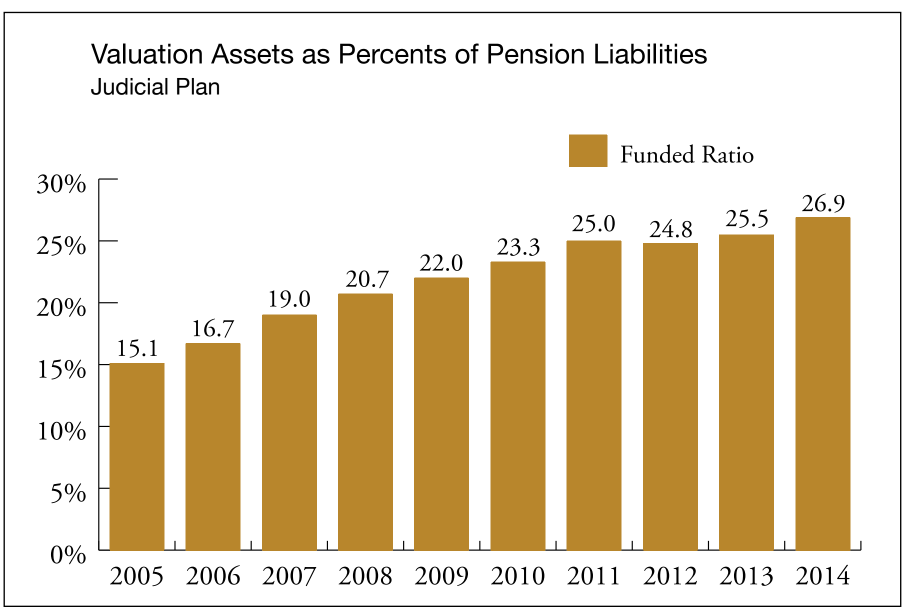
Valuation Assets (Smoothed Market) vs. Pension Liabilities

Ten Years Ended June 30, 2014

Judicial Plan

	Dollars in Billions			
Fiscal Year	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	Funded Ratios
2005	$0.0442	$0.2481	$0.2923	15.1%
2006	0.0517	0.2573	0.3090	16.7
2007	0.0619	0.2648	0.3267	19.0
2008	0.0732	0.2816	0.3548	20.7
2009	0.0813	0.2878	0.3691	22.0
2010	0.0890	0.2930	0.3820	23.3
2011	0.0984	0.2951	0.3935	25.0
2012	0.1023	0.3111	0.4133	24.8
2013	0.1111	0.3242	0.4354	25.5
2014	0.1243	0.3381	0.4623	26.9



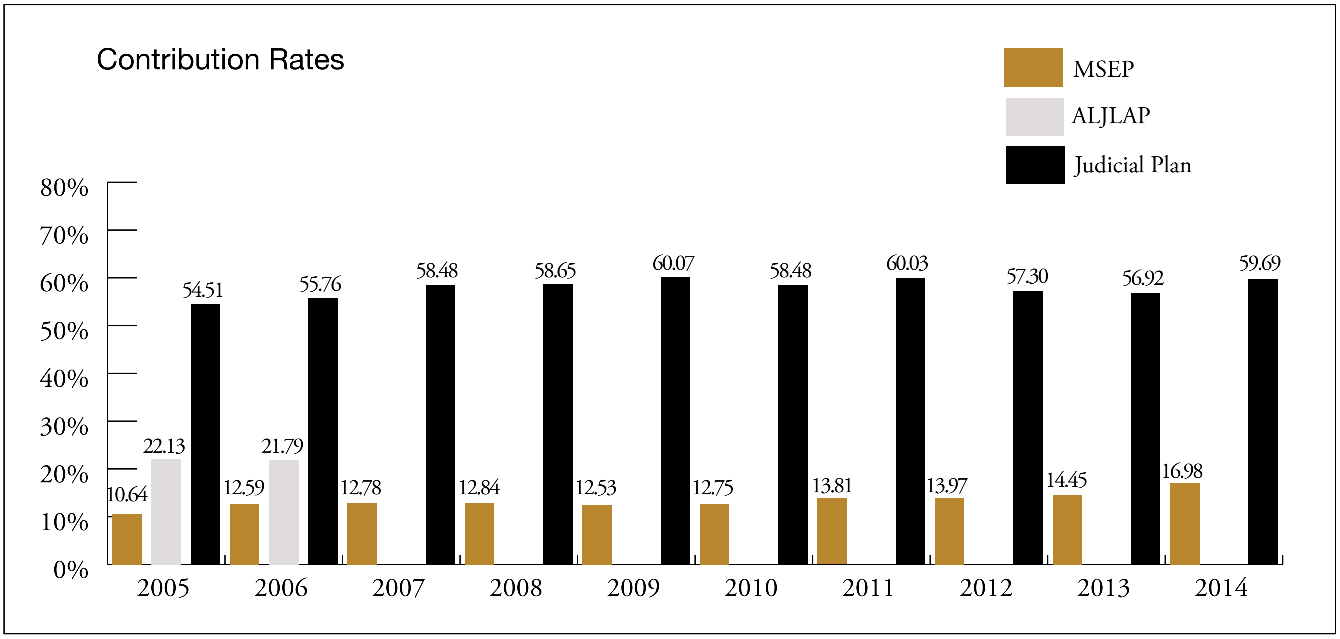


Contribution Rates as a Percent of Payroll

Last Ten Fiscal Years

Fiscal Year	MSEP	ALJLAP*	Judicial Plan
2005	10.64%	22.13%	54.51%
2006	12.59	21.79	55.76
2007	12.78	0.00	58.48
2008	12.84	0.00	58.65
2009	12.53	0.00	60.07
2010	12.75	0.00	58.48
2011	13.81	0.00	60.03
2012	13.97	0.00	57.30
2013	14.45	0.00	56.92
2014	16.98	0.00	59.69

** The ALJLAP was transitioned to MSEP during fiscal year 2005. After fiscal year 2006, the rate for MSEP includes the ALJ's.*

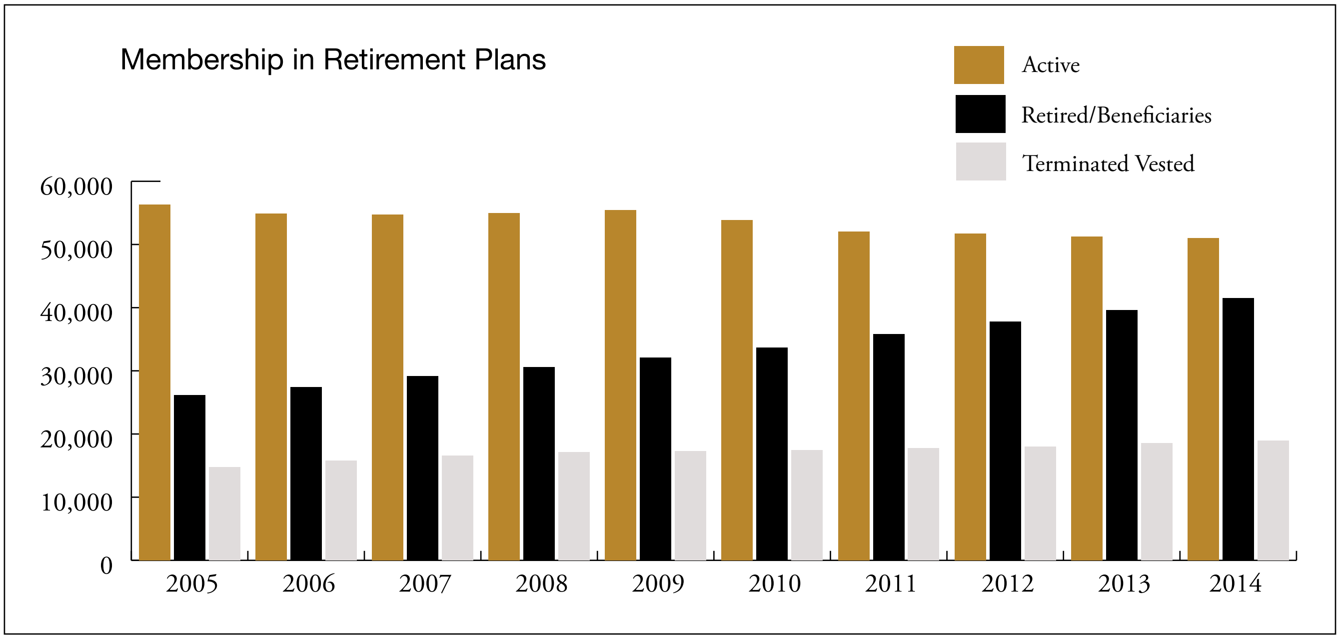


Membership in Retirement Plans

Last Ten Fiscal Years

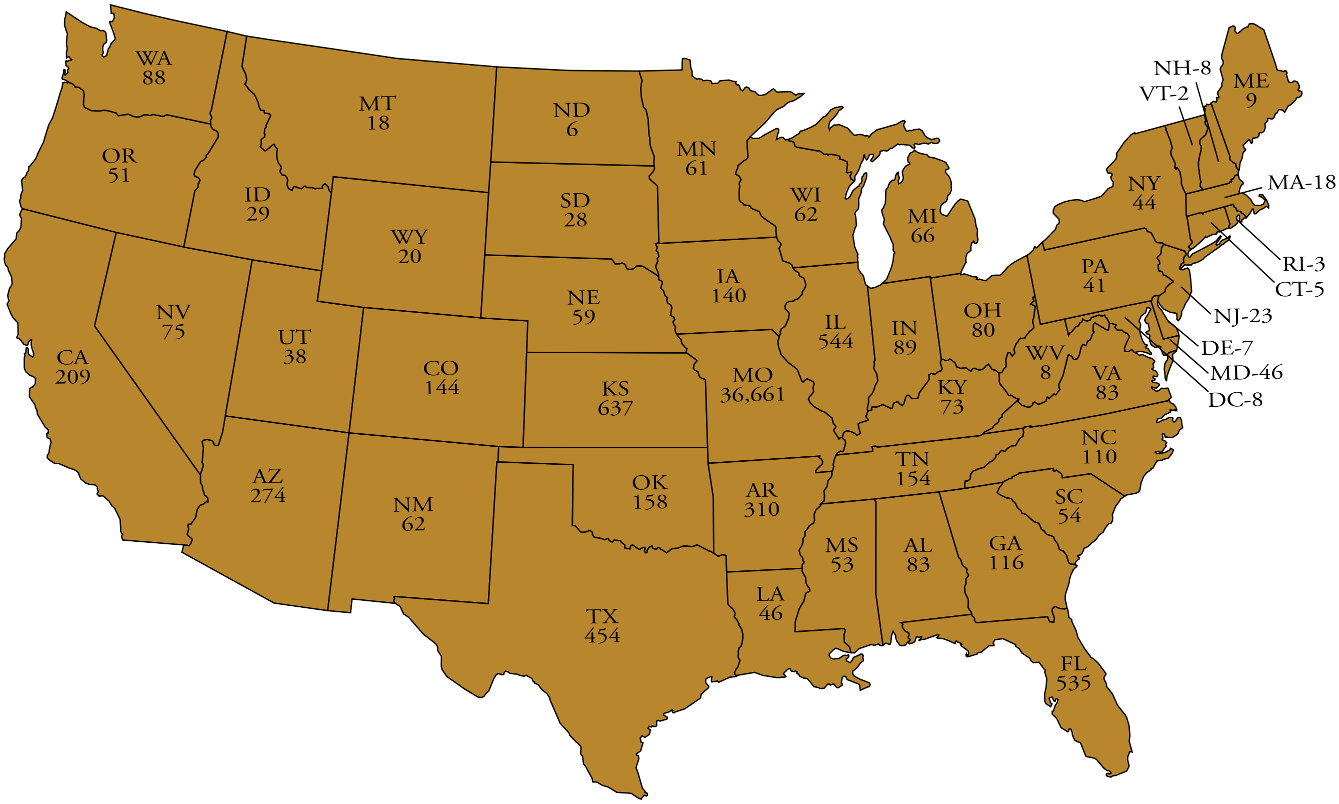
Fiscal Year	Active*	Retired/Beneficiaries	Terminated-Vested	Totals
2005	56,336	26,177	14,789	97,302
2006	54,887	27,450	15,829	98,166
2007	54,763	29,129	16,578	100,470
2008	54,943	30,572	17,123	102,638
2009	55,454	32,100	17,304	104,858
2010	53,880	33,716	17,441	105,037
2011	52,059	35,801	17,757	105,617
2012	51,730	37,796	18,075	107,601
2013	51,233	39,636	18,581	109,450
2014	51,026	41,511	18,957	111,494

** Excludes members on leave of absence and long-term disability.*



Distribution of Benefit Recipients by Location

June 30, 2014



Benefit Recipients Outside the Continental United States

13	Alaska	1	Guam	1	Philippines
8	Hawaii	3	India	1	Puerto Rico
4	Army Post Office	2	Ireland	1	Sri Lanka
1	Argentina	3	Israel	1	Sweden
2	Australia	2	Italy	1	Thailand
11	Canada	3	Mexico	1	The Netherlands
1	Colombia, South America	1	Marshall Islands	2	United Arab Emirates
1	Costa Rica	1	Nigeria	3	United Kingdom
1	Equador	1	P. R. China	2	Virgin Islands
1	Germany	1	Panama		

Benefit Recipients by Type of Retirement and Option Selected

June 30, 2014

MSEP

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Retirement A	B	C	D	E	F	G
1-250	4,915	1,802	2,286	261	495	1	0	70
251-500	7,085	3,404	2,514	390	700	4	0	73
501-750	5,205	3,102	1,214	302	544	0	0	43
751-1000	4,544	3,418	539	186	374	0	0	27
1001-1250	3,863	3,269	224	118	241	0	0	11
1251-1500	3,140	2,768	109	86	171	0	0	6
1501-1750	2,593	2,347	61	60	125	0	0	0
1751-2000	2,190	2,038	32	38	79	0	0	3
Over 2000	7,914	7,394	57	128	332	0	0	3
Total	41,449	29,542	7,036	1,569	3,061	5	0	236

Judicial Plan

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Retirement A	B	C	D	E	F	G
1-250	3	0	2	0	1	0	0	0
251-500	9	0	7	0	1	0	0	1
501-750	8	0	3	0	3	0	0	2
751-1000	5	0	1	1	3	0	0	0
1001-1250	2	0	2	0	0	0	0	0
1251-1500	8	1	4	2	0	0	0	1
1501-1750	6	0	4	1	1	0	0	0
1751-2000	9	0	3	2	3	0	0	1
Over 2000	467	293	52	29	90	0	0	3
Total	517	294	78	35	102	0	0	8

Type of Retirement
A - Normal retirement
B - Early retirement
C - Survivor of active
D - Survivor of retired
E - Disability
F - Occupational disability (Water Patrol)
G - Ex-spouse

Option Selected

1	2	3	4	5	6	7	8	9	10
0	14	194	188	283	0	1,012	494	42	2,688
8	44	227	174	369	3	1,455	993	28	3,784
8	34	127	71	247	1	1,110	1,150	4	2,453
8	26	68	45	322	1	1,031	1,002	2	2,039
11	16	59	34	366	0	825	741	3	1,808
9	10	46	28	381	1	683	518	0	1,464
7	8	39	27	362	0	521	365	0	1,264
9	3	34	19	330	1	470	252	1	1,071
73	17	83	33	1,102	0	2,150	1,082	0	3,374
133	172	877	619	3,762	7	9,257	6,597	80	19,945

Option Selected

1	2	3	4	5	6	7	8	9	10
3	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	1
5	0	0	0	1	0	0	0	0	2
3	0	0	0	1	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	2
5	0	0	0	0	0	0	0	0	1
5	0	0	0	1	0	0	0	0	3
432	0	0	0	24	0	0	0	1	10
469	0	0	0	27	0	0	0	1	20

Option Selected

1 - Automatic 50% joint & survivor
2 - 60 guaranteed payments
3 - 120 guaranteed payments
4 - 180 guaranteed payments
5 - 50% joint & survivor
6 - 75% joint & survivor
7 - 100% joint & survivor
8 - Unreduced 50% joint & survivor
9 - Automatic minor survivor
10 - No survivor option (includes pop-ups)

Benefits Payable Tabulated by Type of Benefit and by Option

June 30, 2014

MSEP

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
Service retirement			
Life annuity	5,237	$ 69,831,408	$13,334
50% joint and survivor	5,404	92,547,248	17,126
100% joint and survivor	2,819	55,975,226	19,856
5-year certain and life	139	1,470,096	10,576
10-year certain and life	154	1,672,987	10,864
Survivor beneficiary	2,382	28,475,213	11,954
Total	16,135	249,972,178	15,493
Disability retirement	5	19,560	3,912
Death-in-service	1,438	15,805,454	10,991
Grand totals	17,578	$265,797,192	15,121

MSEP 2000

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
Service retirement			
Life annuity	14,192	$203,446,520	$14,335
50% joint and survivor	3,450	68,764,933	19,932
100% joint and survivor	3,813	62,387,488	16,362
5-year certain and life	29	406,820	14,028
10-year certain and life	627	6,746,898	10,761
15-year certain and life	504	4,427,082	8,784
Survivor beneficiary	677	6,290,411	9,292
Total	23,292	352,470,152	15,133
Death-in-service	130	463,172	3,563
Grand totals	23,422	$352,933,324	15,068

Judicial Plan

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
Service retirement			
Life annuity	3	$ 222,444	$74,148
50% joint and survivor	369	24,734,064	67,030
Survivor beneficiary	105	3,784,068	36,039
Total	477	28,740,576	60,253
Death-in-service	34	1,108,832	32,613
Grand totals	511	$29,849,408	58,414

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2014

MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category <5	5-10	11-15	16-20	21-25	26-30	31+	All Members
2005	Average monthly benefit	$ 281	$ 285	$ 483	$ 686	$ 1,222	$ 1,575	$ 1,979	$ 959
	Average final average salary	$ 4,085	$ 2,356	$ 2,321	$ 2,619	$ 3,150	$ 3,362	$ 3,523	$ 2,843
	Number of retirees	4	288	255	260	252	316	126	1,501
2006	Average monthly benefit	$ 592	$ 289	$ 435	$ 697	$ 1,037	$ 1,566	$ 1,857	$ 912
	Average final average salary	$ 4,599	$ 2,466	$ 2,315	$ 2,680	$ 2,744	$ 3,317	$ 3,437	$ 2,792
	Number of retirees	4	338	270	269	275	338	151	1,645
2007	Average monthly benefit	$ 150	$ 276	$ 488	$ 689	$ 1,126	$ 1,575	$ 1,863	$ 956
	Average final average salary	$ 2,613	$ 2,347	$ 2,559	$ 2,629	$ 2,974	$ 3,330	$ 3,440	$ 2,851
	Number of retirees	1	404	302	308	323	426	198	1,962
2008	Average monthly benefit	$ 0	$ 265	$ 469	$ 725	$ 1,108	$ 1,597	$ 2,045	$ 943
	Average final average salary	$ 0	$ 2,362	$ 2,450	$ 2,778	$ 2,953	$ 3,386	$ 3,687	$ 2,866
	Number of retirees	0	377	369	313	334	365	186	1,944
2009	Average monthly benefit	$ 111	$ 292	$ 490	$ 748	$ 1,257	$ 1,651	$ 2,145	$ 985
	Average final average salary	$ 1,596	$ 2,412	$ 2,454	$ 2,861	$ 3,277	$ 3,489	$ 3,890	$ 2,974
	Number of retirees	1	431	359	301	389	369	170	2,020
2010	Average monthly benefit	$ 569	$ 287	$ 509	$ 779	$ 1,192	$ 1,601	$ 2,121	$ 951
	Average final average salary	$ 6,867	$ 2,520	$ 2,593	$ 2,887	$ 3,186	$ 3,484	$ 3,824	$ 2,992
	Number of retirees	3	466	418	332	366	328	214	2,127
2011	Average monthly benefit	$ 39	$ 332	$ 503	$ 826	$ 1,225	$ 1,652	$ 2,125	$ 1,011
	Average final average salary	$ 925	$ 2,623	$ 2,517	$ 3,045	$ 3,238	$ 3,520	$ 3,858	$ 3,060
	Number of retirees	3	573	477	427	470	480	274	2,704
2012	Average monthly benefit	$ 139	$ 304	$ 521	$ 828	$ 1,236	$ 1,639	$ 2,273	$ 946
	Average final average salary	$ 8,932	$ 2,559	$ 2,647	$ 3,063	$ 3,292	$ 3,519	$ 4,104	$ 3,058
	Number of retirees	4	572	520	399	456	366	190	2,507
2013	Average monthly benefit	$ 251	$ 324	$ 520	$ 755	$ 1,242	$ 1,699	$ 2,007	$ 929
	Average final average salary	$ 3,744	$ 2,665	$ 2,586	$ 2,820	$ 3,308	$ 3,639	$ 3,671	$ 3,010
	Number of retirees	5	594	547	379	435	385	204	2,549
2014	Average monthly benefit	$ 280	$ 308	$ 520	$ 809	$ 1,199	$ 1,691	$ 2,207	$ 937
	Average final average salary	$ 4,426	$ 2,675	$ 2,614	$ 3,029	$ 3,229	$ 3,650	$ 3,999	$ 3,066
	Number of retirees	5	636	507	370	436	392	199	2,545
Ten Years Ended June 30, 2014									
	Average monthly benefit	$ 293	$ 300	$ 499	$ 762	$ 1,192	$ 1,627	$ 2,071	$ 954
	Average final average salary	$ 4,630	$ 2,525	$ 2,529	$ 2,863	$ 3,160	$ 3,474	$ 3,761	$ 2,968
	Number of retirees	30	4,679	4,024	3,358	3,736	3,765	1,912	21,504

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2014

General Employees in the MSEP*

Members Retiring During Fiscal Year		Years Credited Service by Category <5	5-10	11-15	16-20	21-25	26-30	31+	All Members
2005	Average monthly benefit	$ 229	$ 260	$ 429	$ 680	$ 1,175	$ 1,575	$ 1,932	$ 936
	Average final average salary	$ 4,449	$ 2,331	$ 2,230	$ 2,615	$ 3,105	$ 3,362	$ 3,547	$ 2,820
	Number of retirees	3	277	249	258	245	316	122	1,470
2006	Average monthly benefit	$ 426	$ 276	$ 423	$ 697	$ 1,037	$ 1,562	$ 1,849	$ 907
	Average final average salary	$ 3,520	$ 2,433	$ 2,307	$ 2,680	$ 2,744	$ 3,313	$ 3,429	$ 2,780
	Number of retirees	3	334	267	269	275	337	150	1,635
2007	Average monthly benefit	$ 0	$ 259	$ 483	$ 685	$ 1,126	$ 1,571	$ 1,863	$ 954
	Average final average salary	$ 0	$ 2,329	$ 2,556	$ 2,628	$ 2,974	$ 3,331	$ 3,440	$ 2,850
	Number of retirees	0	393	300	307	323	425	198	1,946
2008	Average monthly benefit	$ 0	$ 260	$ 458	$ 715	$ 1,108	$ 1,597	$ 2,045	$ 941
	Average final average salary	$ 0	$ 2,357	$ 2,440	$ 2,761	$ 2,953	$ 3,386	$ 3,687	$ 2,862
	Number of retirees	0	374	365	312	334	365	186	1,936
2009	Average monthly benefit	$ 111	$ 265	$ 469	$ 744	$ 1,239	$ 1,649	$ 2,127	$ 974
	Average final average salary	$ 1,596	$ 2,378	$ 2,429	$ 2,861	$ 3,251	$ 3,487	$ 3,866	$ 2,959
	Number of retirees	1	417	355	300	386	368	169	1,996
2010	Average monthly benefit	$ 442	$ 283	$ 495	$ 775	$ 1,192	$ 1,596	$ 2,095	$ 943
	Average final average salary	$ 6,215	$ 2,517	$ 2,576	$ 2,887	$ 3,186	$ 3,486	$ 3,792	$ 2,983
	Number of retirees	2	463	415	331	366	327	212	2,116
2011	Average monthly benefit	$ 39	$ 301	$ 482	$ 807	$ 1,222	$ 1,643	$ 2,107	$ 1,001
	Average final average salary	$ 925	$ 2,605	$ 2,495	$ 3,033	$ 3,239	$ 3,515	$ 3,836	$ 3,052
	Number of retirees	3	547	470	422	469	477	272	2,660
2012	Average monthly benefit	$ 139	$ 291	$ 504	$ 815	$ 1,236	$ 1,632	$ 2,273	$ 939
	Average final average salary	$ 8,932	$ 2,543	$ 2,625	$ 3,049	$ 3,292	$ 3,506	$ 4,104	$ 3,048
	Number of retirees	4	564	516	396	456	365	190	2,491
2013	Average monthly benefit	$ 169	$ 301	$ 500	$ 748	$ 1,235	$ 1,699	$ 1,995	$ 923
	Average final average salary	$ 4,244	$ 2,654	$ 2,565	$ 2,819	$ 3,297	$ 3,639	$ 3,645	$ 3,004
	Number of retirees	3	570	540	377	434	385	203	2,512
2014	Average monthly benefit	$ 262	$ 298	$ 514	$ 803	$ 1,195	$ 1,691	$ 2,207	$ 935
	Average final average salary	$ 5,382	$ 2,663	$ 2,612	$ 3,029	$ 3,230	$ 3,650	$ 3,999	$ 3,065
	Number of retirees	3	629	503	368	435	392	199	2,529
Ten Years Ended June 30, 2014									
	Average monthly benefit	$ 224	$ 283	$ 482	$ 754	$ 1,186	$ 1,624	$ 2,059	$ 947
	Average final average salary	$ 4,787	$ 2,509	$ 2,509	$ 2,857	$ 3,153	$ 3,471	$ 3,751	$ 2,959
	Number of retirees	22	4,568	3,980	3,340	3,723	3,757	1,901	21,291

** Excludes legislators, administrave law judges, water patrol, and elected officials.*

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2014

Legislators in the MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category <5	5-10	11-15	16-20	21-25	26-30	31+	All Members
	Average monthly benefit	$ 435	$ 910	$ 1,379	$ 1,742	$ 2,409	$ 0	$ 3,411	$ 1,650
2005	Average final average salary	$ 2,993	$ 2,993	$ 2,993	$ 2,993	$ 2,898	$ 0	$ 2,803	$ 2,946
	Number of retirees	1	11	3	1	4	0	4	24
	Average monthly benefit	$ 0	$ 871	$ 1,524	$ 0	$ 0	$ 0	$ 0	$ 1,263
2006	Average final average salary	$ 0	$ 2,993	$ 2,993	$ 0	$ 0	$ 0	$ 0	$ 2,993
	Number of retirees	0	2	3	0	0	0	0	5
	Average monthly benefit	$ 150	$ 873	$ 1,306	$ 1,959	$ 0	$ 3,484	$ 0	$ 1,113
2007	Average final average salary	$ 2,613	$ 2,993	$ 2,993	$ 2,993	$ 0	$ 2,993	$ 0	$ 2,969
	Number of retirees	1	11	2	1	0	1	0	16
	Average monthly benefit	$ 0	$ 871	$ 1,306	$ 0	$ 0	$ 0	$ 0	$ 1,045
2008	Average final average salary	$ 0	$ 2,993	$ 2,993	$ 0	$ 0	$ 0	$ 0	$ 2,993
	Number of retirees	0	3	2	0	0	0	0	5
	Average monthly benefit	$ 0	$ 910	$ 1,496	$ 1,995	$ 2,395	$ 0	$ 0	$ 1,150
2009	Average final average salary	$ 0	$ 2,993	$ 2,993	$ 2,993	$ 2,993	$ 0	$ 0	$ 2,993
	Number of retirees	0	13	3	1	1	0	0	18
	Average monthly benefit	$ 0	$ 876	$ 1,496	$ 2,245	$ 0	$ 3,242	$ 0	$ 1,602
2010	Average final average salary	$ 0	$ 2,993	$ 2,993	$ 2,993	$ 0	$ 2,993	$ 0	$ 2,993
	Number of retirees	0	3	1	1	0	1	0	6
	Average monthly benefit	$ 0	$ 991	$ 1,512	$ 2,021	$ 2,744	$ 3,242	$ 0	$ 1,275
2011	Average final average salary	$ 0	$ 2,993	$ 2,993	$ 2,993	$ 2,993	$ 2,993	$ 0	$ 2,993
	Number of retirees	0	26	4	4	1	1	0	36
	Average monthly benefit	$ 0	$ 1,069	$ 1,621	$ 2,225	$ 0	$ 0	$ 0	$ 1,295
2012	Average final average salary	$ 0	$ 2,993	$ 2,993	$ 2,993	$ 0	$ 0	$ 0	$ 2,993
	Number of retirees	0	7	2	1	0	0	0	10
	Average monthly benefit	$ 374	$ 910	$ 1,513	$ 2,120	$ 0	$ 0	$ 0	$ 1,046
2013	Average final average salary	$ 2,993	$ 2,993	$ 2,993	$ 2,993	$ 0	$ 0	$ 0	$ 2,993
	Number of retirees	2	23	5	2	0	0	0	32
	Average monthly benefit	$ 307	$ 1,051	$ 1,496	$ 1,995	$ 2,744	$ 0	$ 0	$ 1,296
2014	Average final average salary	$ 2,993	$ 2,993	$ 2,993	$ 2,993	$ 2,993	$ 0	$ 0	$ 2,993
	Number of retirees	2	6	3	2	1	0	0	14
Ten Years Ended June 30, 2014									
	Average monthly benefit	$ 325	$ 942	$ 1,474	$ 2,037	$ 2,503	$ 3,323	$ 3,411	$ 1,263
	Average final average salary	$ 2,930	$ 2,993	$ 2,993	$ 2,993	$ 2,939	$ 2,993	$ 2,803	$ 2,984
	Number of retirees	6	105	28	13	7	3	4	166

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2014

Elected Officials in the MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category <5	5-10	11-15	16-20	21-25	26-30	31+	All Members
2005	Average monthly benefit	$ 0	$ 0	$ 4,218	$ 0	$ 0	$ 0	$ 0	$ 4,218
	Average final average salary	$ 0	$ 0	$ 10,065	$ 0	$ 0	$ 0	$ 0	$ 10,065
	Number of retirees	0	0	2	0	0	0	0	2
2006	Average monthly benefit	$ 0	$ 2,009	$ 0	$ 0	$ 0	$ 0	$ 0	$ 2,009
	Average final average salary	$ 0	$ 8,979	$ 0	$ 0	$ 0	$ 0	$ 0	$ 8,979
	Number of retirees	0	1	0	0	0	0	0	1
2007	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Number of retirees	0	0	0	0	0	0	0	0
2008	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Number of retirees	0	0	0	0	0	0	0	0
2009	Average monthly benefit	$ 0	$ 3,336	$ 4,852	$ 0	$ 0	$ 0	$ 0	$ 4,094
	Average final average salary	$ 0	$ 8,979	$ 9,703	$ 0	$ 0	$ 0	$ 0	$ 9,341
	Number of retirees	0	1	1	0	0	0	0	2
2010	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Number of retirees	0	0	0	0	0	0	0	0
2011	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Number of retirees	0	0	0	0	0	0	0	0
2012	Average monthly benefit	$ 0	$ 0	$ 3,781	$ 0	$ 0	$ 0	$ 0	$ 3,781
	Average final average salary	$ 0	$ 0	$ 8,093	$ 0	$ 0	$ 0	$ 0	$ 8,093
	Number of retirees	0	0	2	0	0	0	0	2
2013	Average monthly benefit	$ 0	$ 0	$ 4,489	$ 0	$ 0	$ 0	$ 0	$ 4,489
	Average final average salary	$ 0	$ 0	$ 8,979	$ 0	$ 0	$ 0	$ 0	$ 8,979
	Number of retirees	0	0	1	0	0	0	0	1
2014	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Number of retirees	0	0	0	0	0	0	0	0
Ten Years Ended June 30, 2014									
	Average monthly benefit	$ 0	$ 2,673	$ 4,223	$ 0	$ 0	$ 0	$ 0	$ 3,836
	Average final average salary	$ 0	$ 8,979	$ 9,166	$ 0	$ 0	$ 0	$ 0	$ 9,120
	Number of retirees	0	2	6	0	0	0	0	8

Note: COLA increases are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2014

Uniformed Water Patrol in the MSEP

Members Retiring During Fiscal Year		<5	5-10	11-15	16-20	21-25	26-30	31+	All Members
		Years Credited Service by Category							
2005	Average monthly benefit	$ 0	$ 0	$ 0	$ 1,267	$ 0	$ 0	$ 0	$ 1,267
	Average final average salary	$ 0	$ 0	$ 0	$ 3,254	$ 0	$ 0	$ 0	$ 3,254
	Number of retirees	0	0	0	1	0	0	0	1
2006	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 2,848	$ 3,090	$ 2,969
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 4,657	$ 4,710	$ 4,684
	Number of retirees	0	0	0	0	0	1	1	2
2007	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Number of retirees	0	0	0	0	0	0	0	0
2008	Average monthly benefit	$ 0	$ 0	$ 750	$ 0	$ 0	$ 0	$ 0	$ 750
	Average final average salary	$ 0	$ 0	$ 2,541	$ 0	$ 0	$ 0	$ 0	$ 2,541
	Number of retirees	0	0	1	0	0	0	0	1
2009	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 2,351	$ 5,113	$ 3,732
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 4,173	$ 7,902	$ 6,038
	Number of retirees	0	0	0	0	0	1	1	2
2010	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 4,886	$ 4,886
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 7,184	$ 7,184
	Number of retirees	0	0	0	0	0	0	2	2
2011	Average monthly benefit	$ 0	$ 0	$ 721	$ 0	$ 0	$ 3,086	$ 4,553	$ 3,200
	Average final average salary	$ 0	$ 0	$ 2,964	$ 0	$ 0	$ 5,077	$ 6,912	$ 5,388
	Number of retirees	0	0	1	0	0	2	2	5
2012	Average monthly benefit	$ 0	$ 0	$ 0	$ 959	$ 0	$ 0	$ 0	$ 959
	Average final average salary	$ 0	$ 0	$ 0	$ 2,794	$ 0	$ 0	$ 0	$ 2,794
	Number of retirees	0	0	0	1	0	0	0	1
2013	Average monthly benefit	$ 0	$ 69	$ 0	$ 0	$ 0	$ 0	$ 0	$ 69
	Average final average salary	$ 0	$ 1,291	$ 0	$ 0	$ 0	$ 0	$ 0	$ 1,291
	Number of retirees	0	1	0	0	0	0	0	1
2014	Average monthly benefit	$ 0	$ 0	$ 780	$ 0	$ 0	$ 0	$ 0	$ 780
	Average final average salary	$ 0	$ 0	$ 2,507	$ 0	$ 0	$ 0	$ 0	$ 2,507
	Number of retirees	0	0	1	0	0	0	0	1
Ten Years Ended June 30, 2014									
	Average monthly benefit	$ 0	$ 69	$ 750	$ 1,113	$ 0	$ 2,843	$ 4,514	$ 2,687
	Average final average salary	$ 0	$ 1,291	$ 2,671	$ 3,024	$ 0	$ 4,746	$ 6,801	$ 4,696
	Number of retirees	0	1	3	2	0	4	6	16

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2014

Administrative Law Judges and Legal Advisors in the MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category <5	5-10	11-15	16-20	21-25	26-30	31+	All Members
2005	Average monthly benefit	$ 0	$ 0	$ 3,750	$ 0	$ 3,490	$ 0	$ 0	$ 3,555
	Average final average salary	$ 0	$ 0	$ 7,500	$ 0	$ 7,169	$ 0	$ 0	$ 7,252
	Number of retirees	0	0	1	0	3	0	0	4
2006	Average monthly benefit	$ 1,088	$ 1,669	$ 0	$ 0	$ 0	$ 0	$ 0	$ 1,379
	Average final average salary	$ 7,836	$ 5,933	$ 0	$ 0	$ 0	$ 0	$ 0	$ 6,885
	Number of retirees	1	1	0	0	0	0	0	2
2007	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Number of retirees	0	0	0	0	0	0	0	0
2008	Average monthly benefit	$ 0	$ 0	$ 2,401	$ 3,843	$ 0	$ 0	$ 0	$ 3,122
	Average final average salary	$ 0	$ 0	$ 4,803	$ 7,936	$ 0	$ 0	$ 0	$ 6,370
	Number of retirees	0	0	1	1	0	0	0	2
2009	Average monthly benefit	$ 0	$ 0	$ 0	$ 0	$ 4,200	$ 0	$ 0	$ 4,200
	Average final average salary	$ 0	$ 0	$ 0	$ 0	$ 8,400	$ 0	$ 0	$ 8,400
	Number of retirees	0	0	0	0	2	0	0	2
2010	Average monthly benefit	$ 823	$ 0	$ 2,827	$ 0	$ 0	$ 0	$ 0	$ 2,159
	Average final average salary	$ 8,172	$ 0	$ 5,851	$ 0	$ 0	$ 0	$ 0	$ 6,625
	Number of retirees	1	0	2	0	0	0	0	3
2011	Average monthly benefit	$ 0	$ 0	$ 3,236	$ 4,101	$ 0	$ 0	$ 0	$ 3,524
	Average final average salary	$ 0	$ 0	$ 6,433	$ 8,202	$ 0	$ 0	$ 0	$ 7,023
	Number of retirees	0	0	2	1	0	0	0	3
2012	Average monthly benefit	$ 0	$ 2,493	$ 0	$ 4,378	$ 0	$ 4,204	$ 0	$ 3,692
	Average final average salary	$ 0	$ 8,756	$ 0	$ 8,756	$ 0	$ 8,408	$ 0	$ 8,640
	Number of retirees	0	1	0	1	0	1	0	3
2013	Average monthly benefit	$ 0	$ 0	$ 2,657	$ 0	$ 4,134	$ 0	$ 4,450	$ 3,747
	Average final average salary	$ 0	$ 0	$ 5,314	$ 0	$ 8,267	$ 0	$ 8,900	$ 7,494
	Number of retirees	0	0	1	0	1	0	1	3
2014	Average monthly benefit	$ 0	$ 2,433	$ 0	$ 0	$ 0	$ 0	$ 0	$ 2,433
	Average final average salary	$ 0	$ 8,146	$ 0	$ 0	$ 0	$ 0	$ 0	$ 8,146
	Number of retirees	0	1	0	0	0	0	0	1
Ten Years Ended June 30, 2014									
	Average monthly benefit	$ 956	$ 2,198	$ 2,991	$ 4,107	$ 3,834	$ 4,204	$ 4,450	$ 3,192
	Average final average salary	$ 8,004	$ 7,612	$ 6,026	$ 8,298	$ 7,762	$ 8,408	$ 8,900	$ 7,383
	Number of retirees	2	3	7	3	6	1	1	23

Note: COLA increases are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2014

Judicial Plan

Members Retiring During Fiscal Year		Years Credited Service by Category <5	5-10	11-15	16-20	21-25	26-30	31+	All Members
2005	Average monthly benefit	$ 0	$ 0	$ 4,388	$ 4,500	$ 4,142	$ 4,306	$ 4,396	$ 4,310
	Average final average salary	$ 0	$ 0	$ 9,000	$ 9,000	$ 8,284	$ 8,600	$ 8,792	$ 8,649
	Number of retirees	0	0	2	1	3	5	2	13
2006	Average monthly benefit	$ 592	$ 1,946	$ 4,500	$ 4,000	$ 0	$ 4,396	$ 0	$ 2,930
	Average final average salary	$ 5,875	$ 6,564	$ 9,000	$ 8,000	$ 0	$ 8,792	$ 0	$ 7,496
	Number of retirees	2	2	1	2	0	2	0	9
2007	Average monthly benefit	$ 207	$ 2,121	$ 3,995	$ 4,243	$ 4,390	$ 4,071	$ 4,167	$ 3,756
	Average final average salary	$ 5,875	$ 7,889	$ 7,990	$ 8,486	$ 8,833	$ 8,143	$ 8,333	$ 8,213
	Number of retirees	2	5	5	14	6	7	3	42
2008	Average monthly benefit	$ 381	$ 2,045	$ 4,120	$ 4,828	$ 5,132	$ 4,593	$ 5,186	$ 4,080
	Average final average salary	$ 2,742	$ 6,203	$ 8,276	$ 9,656	$ 10,264	$ 9,186	$ 10,373	$ 8,517
	Number of retirees	1	2	6	3	3	2	1	18
2009	Average monthly benefit	$ 524	$ 1,786	$ 3,663	$ 4,693	$ 5,286	$ 5,127	$ 5,020	$ 3,456
	Average final average salary	$ 6,103	$ 7,469	$ 7,811	$ 9,336	$ 10,572	$ 10,255	$ 10,040	$ 8,385
	Number of retirees	6	2	7	6	3	3	1	28
2010	Average monthly benefit	$ 458	$ 1,333	$ 4,507	$ 4,557	$ 0	$ 5,181	$ 4,973	$ 4,064
	Average final average salary	$ 6,597	$ 8,000	$ 9,577	$ 9,114	$ 0	$ 10,362	$ 9,946	$ 9,343
	Number of retirees	1	1	2	1	0	2	3	10
2011	Average monthly benefit	$ 0	$ 2,188	$ 4,631	$ 4,515	$ 4,869	$ 4,789	$ 4,650	$ 4,336
	Average final average salary	$ 0	$ 7,994	$ 9,322	$ 9,031	$ 9,738	$ 9,577	$ 9,299	$ 9,139
	Number of retirees	0	4	8	9	4	2	5	32
2012	Average monthly benefit	$ 0	$ 2,353	$ 4,561	$ 4,621	$ 0	$ 5,020	$ 0	$ 3,822
	Average final average salary	$ 0	$ 7,797	$ 10,179	$ 9,241	$ 0	$ 10,040	$ 0	$ 9,050
	Number of retirees	0	5	4	4	0	1	0	14
2013	Average monthly benefit	$ 0	$ 2,777	$ 4,234	$ 4,625	$ 5,444	$ 5,452	$ 5,293	$ 4,832
	Average final average salary	$ 0	$ 8,246	$ 8,696	$ 9,251	$ 10,888	$ 10,904	$ 10,585	$ 9,848
	Number of retirees	0	1	6	4	5	4	2	22
2014	Average monthly benefit	$ 0	$ 2,310	$ 4,571	$ 5,151	$ 5,117	$ 4,869	$ 5,293	$ 4,313
	Average final average salary	$ 0	$ 8,259	$ 9,143	$ 10,303	$ 10,233	$ 9,738	$ 10,585	$ 9,435
	Number of retirees	0	4	6	3	3	1	1	18
Ten Years Ended June 30, 2014									
	Average monthly benefit	$ 465	$ 2,155	$ 4,271	$ 4,514	$ 4,891	$ 4,656	$ 4,753	$ 4,015
	Average final average salary	$ 5,788	$ 7,698	$ 8,782	$ 9,023	$ 9,794	$ 9,310	$ 9,505	$ 8,796
	Number of retirees	12	26	47	47	27	29	18	206

Note: COLA increases are excluded from the above for comparison purposes.

Retirees and Beneficiaries Tabulated by Fiscal Year of Retirement

As of June 30, 2014

MSEP

Fiscal Year of Retirement	Number	Total Annual Benefit	Average Monthly Benefit
1973	2	$ 13,089	$ 545
1974	3	23,127	642
1975	3	15,760	438
1976	12	82,589	574
1977	13	107,858	691
1978	22	134,055	508
1979	18	113,189	524
1980	23	217,557	788
1981	39	368,750	788
1982	66	586,853	741
1983	61	686,409	938
1984	90	876,441	812
1985	112	1,240,076	923
1986	152	1,386,025	760
1987	188	2,124,386	942
1988	242	3,168,677	1,091
1989	285	4,274,704	1,250
1990	281	4,020,089	1,192
1991	403	6,858,435	1,418
1992	435	6,897,130	1,321
1993	544	8,422,752	1,290
1994	534	8,603,934	1,343
1995	728	12,312,767	1,409
1996	753	13,161,810	1,457
1997	787	13,663,022	1,447
1998	947	16,647,924	1,465
1999	1,055	19,053,030	1,505
2000	1,148	20,458,540	1,485
2001	2,293	39,618,426	1,440
2002	1,639	24,888,627	1,265
2003	1,724	28,017,008	1,354
2004	2,313	36,531,439	1,316
2005	1,702	25,025,811	1,225
2006	1,870	26,546,391	1,183
2007	2,206	32,036,565	1,210
2008	2,201	31,166,458	1,180
2009	2,309	33,459,191	1,208
2010	2,415	34,110,636	1,177
2011	3,051	45,450,717	1,241
2012	2,861	39,565,038	1,152
2013	2,969	39,606,009	1,112
2014	2,950	39,274,819	1,109
	41,449	$620,816,113	$1,248

Retirees and Beneficiaries Tabulated by Fiscal Year of Retirement

As of June 30, 2014

Judicial Plan

Fiscal Year of Retirement	Number	Total Annual Benefit	Average Monthly Benefit
1976 & prior	1	$ 10,833	$ 903
1977	0	0	0
1978	1	15,544	1,295
1979	0	0	0
1980	1	21,196	1,766
1981	1	64,886	5,407
1982	0	0	0
1983	1	20,820	1,735
1984	1	22,128	1,844
1985	0	0	0
1986	2	85,691	3,570
1987	10	545,462	4,546
1988	5	306,340	5,106
1989	7	415,763	4,950
1990	5	260,745	4,346
1991	11	502,992	3,811
1992	7	345,669	4,115
1993	6	260,209	3,614
1994	6	296,503	4,118
1995	15	1,064,407	5,913
1996	10	546,267	4,552
1997	6	340,870	4,734
1998	22	1,396,020	5,288
1999	19	1,153,604	5,060
2000	19	1,253,955	5,500
2001	18	1,526,447	7,067
2002	15	1,062,334	5,902
2003	21	1,368,726	5,431
2004	18	1,118,269	5,177
2005	17	1,135,672	5,567
2006	17	728,099	3,569
2007	57	3,184,897	4,656
2008	30	1,636,636	4,546
2009	37	1,894,778	4,268
2010	16	889,858	4,635
2011	39	2,194,065	4,688
2012	21	961,176	3,814
2013	31	1,849,013	4,970
2014	24	1,278,076	4,438
	517	$29,757,950	$4,797

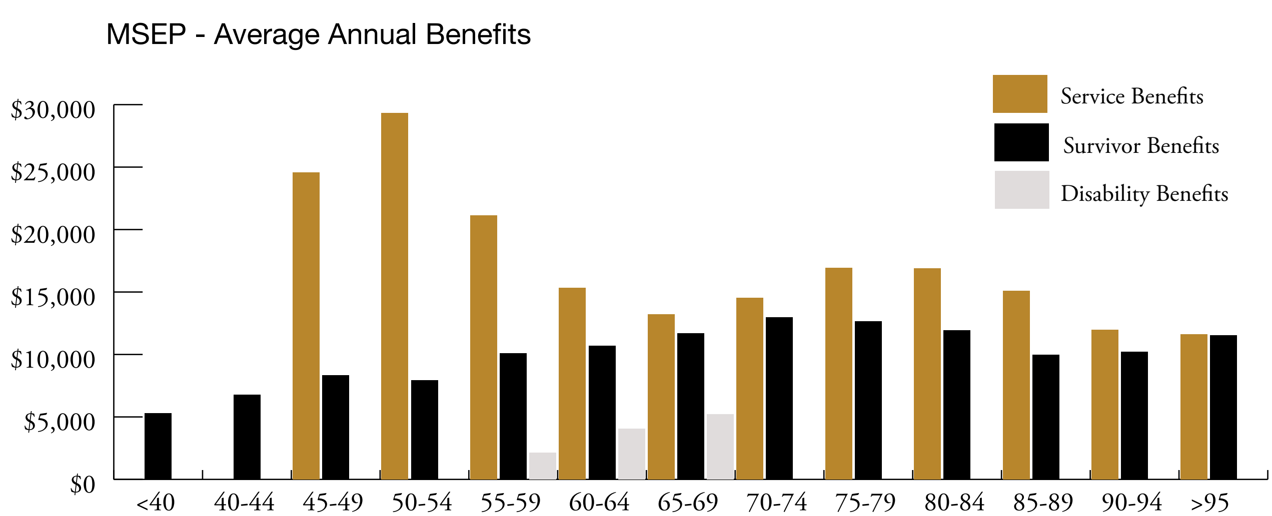
Total Benefits Payable June 30, 2014

Tabulated by Attained Ages of Benefit Recipients

MSEP

Attained Ages	Service Retirement No.	Service Retirement Annual Benefits	Disability Retirement No.	Disability Retirement Annual Benefits	Survivors and Beneficiaries No.	Survivors and Beneficiaries Annual Benefits	Totals No.	Totals Annual Benefits
Under 20					77	$ 262,666	77	$ 262,666
20-24					19	135,018	19	135,018
25-29					8	29,976	8	29,976
30-34					23	145,076	23	145,076
35-39					41	314,287	41	314,287
40-44					78	528,588	78	528,588
45-49	3	$ 73,716			121	1,009,719	124	1,083,435
50-54	494	14,483,410			187	1,483,425	681	15,966,835
55-59	3,532	74,709,608	1	$ 2,148	335	3,378,888	3,868	78,090,644
60-64	8,278	126,912,002	3	12,192	513	5,492,540	8,794	132,416,734
65-69	9,401	124,156,823	1	5,220	603	7,060,062	10,005	131,222,105
70-74	6,157	89,585,446			616	8,001,291	6,773	97,586,737
75-79	3,861	65,459,043			667	8,441,460	4,528	73,900,503
80-84	2,472	41,805,065			649	7,753,980	3,121	49,559,045
85-89	1,465	22,113,938			468	4,662,270	1,933	26,776,208
90-94	542	6,482,589			174	1,780,512	716	8,263,101
95	55	694,646			10	175,898	65	870,544
96	33	437,939			14	186,012	47	623,951
97	23	272,953			7	81,000	30	353,953
98	17	177,550			8	42,642	25	220,192
99	11	104,136			7	62,952	18	167,088
100	10	112,948			1	2,400	11	115,348
101	5	27,734			1	3,588	6	31,322
102	6	40,884					6	40,884
103	2	19,532					2	19,532
104	1	6,744					1	6,744
Totals	36,368	$567,676,706	5	$19,560	4,627	$51,034,250	41,000	$618,730,516

Average age at retirement: 60.2 years • Average age now: 69.5 years



Average benefit paid: $15,609 service benefits • $11,030 survivor benefits • $3,912 disability benefits

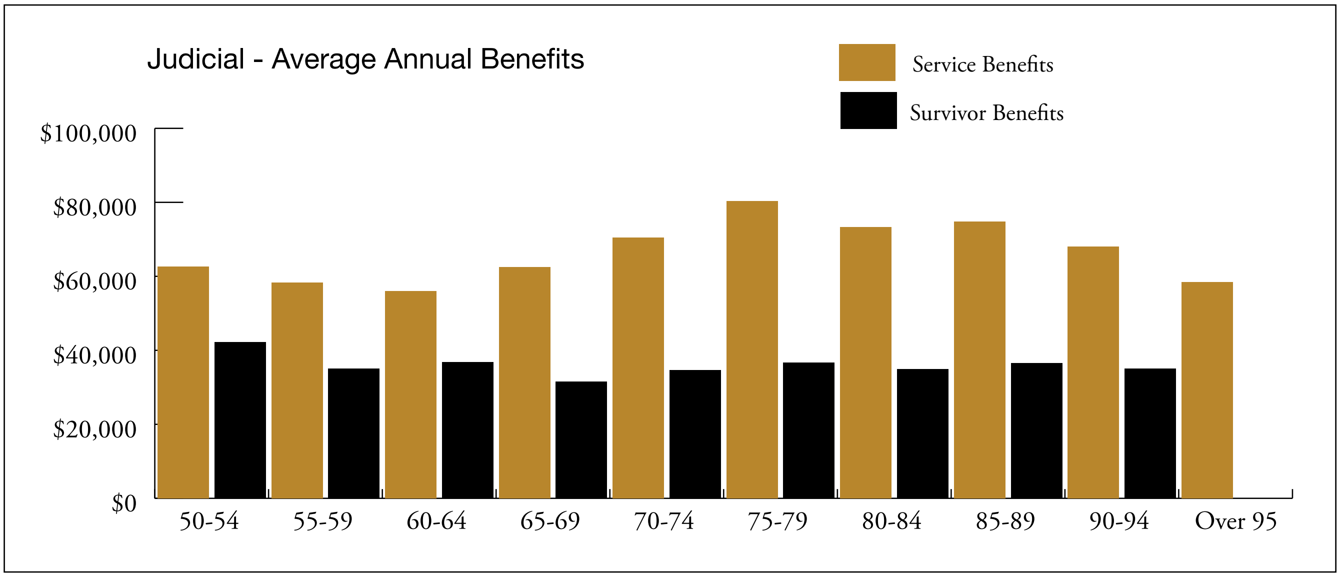
Total Benefits Payable June 30, 2014

Tabulated by Attained Ages of Benefit Recipients

Judicial Plan

	Service Retirement		Survivors and Beneficiaries		Totals	
Attained Ages	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
50-54	1	$ 62,652	2	$ 84,552	3	$ 147,204
55-59	10	582,913	3	105,389	13	688,302
60-64	71	3,974,182	8	294,755	79	4,268,937
65-69	87	5,441,362	19	599,287	106	6,040,649
70-74	87	6,126,106	13	451,115	100	6,577,221
75-79	46	3,693,947	14	513,444	60	4,207,391
80-84	37	2,714,553	38	1,328,334	75	4,042,887
85-89	20	1,494,945	28	1,025,413	48	2,520,358
90-94	11	748,908	14	490,611	25	1,239,519
95 and over	2	116,940	0	0	2	116,940
Totals	372	$24,956,508	139	$4,892,900	511	$29,849,408

Average age at retirement: 65.1 years • Average age now: 75.8 years



Average benefit paid: $67,087 service benefits • $35,201 survivor benefits

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