Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2015

Minnesota State Retirement System Pension Trust Funds of the State of Minnesota

reserving Defined Benefit Refirement Plans



Minnesota State Retirement System Your Foundation for Retirement

About the cover...

Preserving the things that are important to us.

It isn't easy work, but the important things never are.

Throughout this year's Comprehensive Annual Financial Report (CAFR) you'll find photos of monarch butterflies, Minnesota's official state butterfly, and one of the most recognizable species of wildlife in the United States.

Monarchs are in peril. Widespread use of pesticides is killing their habitat and food supply, milkweed. With the monarch butterfly eyed for possible endangered species protection in 2015, there is an ongoing nationwide effort to save the monarch.

Like the monarch, many feel that defined benefit retirement plans are in peril. And, like those working to save the monarch butterfly, MSRS works tirelessly to preserve our defined benefit retirement plans. With a goal of being 100% funded in the long term, MSRS continuously monitors factors that could adversely affect this status, including investment returns and changing member demographics. In response, MSRS may modify employer and employee contributions, benefit formulas for new hires, post-retirement benefit increases, vesting periods, or other plan provisions to ensure our plans are financially secure to pay promised future benefits. Decisions to make changes like these are often difficult, but sometimes even a small change can have an enormous impact on the sustainability of a pension plan.

Each section cover page in this report emphasizes the outcomes of both of these preservation efforts.

We dedicate this CAFR to the MSRS Board of Directors and our Executive Director, their advisors and staff. They formulate funding policy and legislative initiatives to preserve our defined benefit retirement plans, and meet with legislators and various stakeholder groups to garner support for enactment. We extend our utmost appreciation to you for work well done!

Minnesota State Retirement System

Pension Trust Funds of the State of Minnesota

David Bergstrom

Executive Director

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2015

Prepared by MSRS Finance and Executive Division Staff

Retirement Systems of Minnesota Building

60 Empire Drive, Suite 300 | St. Paul, Minnesota 55103-3000 1-800-657-5757 | 651-296-2761 | www.msrs.state.mn.us Email: info@msrs.us

Member of the Government Finance Officers Association of the United States and Canada

MSRS 2015 Comprehensive Annual Financial Report

Table of Contents

Introductory Section

Achievement Awards	8
Board Chairperson's Report	10
Letter of Transmittal	12
MSRS Board of Directors, Administrative Staff and Professional Consultants	22
Organization Chart	23
Summary of Plan Provisions	24

Financial Section

Independent Auditor's Report46Management's Discussion and Analysis50
Basic Financial Statements:
Statement of Fiduciary Net Position
Statement of Changes in Fiduciary Net Position
Notes to the Financial Statements
Required Supplementary Information:
Schedule of Changes in the Employers' Net Pension Liability and Related Ratios
(and Notes to Schedule)
Schedule of Employer Contributions (and Notes to Schedule)
Schedule of Investment Returns
Supplementary Schedules:
Schedule of Administrative Expenses
Summary Schedule of Commissions and Payments to Consultants
Schedule of Investment Expenses
GASB Statement No. 68 Supplemental Employer Schedules:
Schedule of Employer Allocations
Schedule of Pension Amounts by Employer

Investment Section

Investment Report.	118
Fair Value of Net Assets	120
Investment Returns by Sector.	121
Asset Allocation	122
Investment Results - Benefit Increases vs. Inflation (Last Five Years)	122
Investment Results by Investment Pool	123
List of Largest Assets Held at Fair Value	123
Investment Results by Defined Contribution Investment Options	124
Schedule of Investment Manager Fees, Commissions and Other Investment Expenses	125
Investment Summary at Fair Value	126

Actuarial Section

Funding Actuarial Valuation Results:
Actuary's Certification Letter
Summary of Actuarial Methods and Assumptions
Changes in Actuarial Assumptions
Other Assumptions
Actuarial Tables
Changes in Plan Provisions
Actuarial Accrued Liability (AAL)
Actual Contribution Rates as Compared to Actuarially Recommended Rates
Schedule of Changes in Unfunded Actuarial Accrued Liabilities (UAAL)
Schedule of Actuarial and Market Value Funding Progress
Schedule of Contributions from the Employer(s) and Other Contributing Entities
Schedule of Active Member Valuation Data
Schedule of Retirees and Beneficiaries
Solvency Test
Summary of Unfunded Actuarial Accrued Liabilities (UAAL)
GASB Statements No. 67 and No. 68 Actuarial Valuation Results:
Actuary's Certification Letter
Summary of GASB Statements No. 67 and No. 68 Actuarial Valuation Results
Summary of Deferred Outflows (Inflows) of Resources Arising from Current Reporting Period 170

Statistical Section

Introduction	178
Schedule of Changes in Fiduciary Net Position	178
Schedule of Revenues by Source	190
Schedule of Expenses by Type	192
Schedule of Benefits and Refunds by Type	194
Active Members Average Age Tables	198
Schedule of Retired Members by Type of Benefit	200
Schedule of New Retirees and Average Benefit Payments	203
Schedule of Principal Participating Employers	208
Schedule of Participating Employers	210

This page is intentionally left blank.

Introductory Section

MSRS 2015 Comprehensive Annual Financial Report



Achievement Awards

GFOA

The Government Finance Officers Association (GFOA) recognizes public retirement systems that meet its rigorous reporting standards with its annual Certificate of Achievement for Excellence in Financial Reporting. It is the highest form of recognition for accounting and financial reporting in the public pension sector. MSRS received this award for our 2014 Comprehensive Annual Financial Report.





PPCC

The Public Pension Coordinating Council (PPCC) recently recognized MSRS for meeting its professional standards for the administration of public retirement systems.

Board Chairperson's Report

Minnesota State Retirement System MNDCP Minnesota Deferred Compensation Plan HCSP Health Care Savings Plan

December 29, 2015

Dear Members, Benefit Recipients, and Employers:

The retirement plans administered by the Minnesota State Retirement System (MSRS) continue to be among the best funded and cost effective in the country. As of July 1, 2015, MSRS' largest retirement plan – the General Employees Retirement Plan (General Plan) – was 85.7 percent funded (based on the actuarial value of assets), which places it in the top quartile when compared to other U.S. public pension plans. This is an improvement of 2.7 percent from the General Plan's funding status of 83.0 percent (based on the actuarial value of assets) as of July 1, 2014, and is due largely to partial recognition of the 2013 and 2014 favorable investment returns. The MSRS Board of Directors is deeply committed to our fiduciary responsibility to ensure that our pension funds remain stable, sustainable and secure.

MSRS' fiduciary net position as of June 30, 2015, totaling \$20.5 billion, increased approximately 2.1 percent from the prior year. Total assets of \$22.0 billion grew 1.7 percent, largely due to increased contributions and a 4.4 percent annual return on investments. Total liabilities of \$1.5 billion declined 3.3 percent from June 30, 2014. Even with this positive news, the Board's job is never done. The Board monitors MSRS' financial position on an ongoing basis, and continues to take proactive measures to ensure that MSRS provides financially secure retirement plans to pay promised retirement benefits now and in the future.

The Board regularly reviews the actuarial assumptions used to determine MSRS' funding status and to ensure that MSRS' defined benefit retirement plans are adequately funded. This review helps shape our funding policy. To implement funding policy, the Board successfully recommended legislation this past year that lowered the assumed annual rate of return from 8.5 percent to 8 percent. The lower rate was based on recommendations made by the State Board of Investment and MSRS' consulting actuary. This change, by itself, increases pension liabilities for MSRS' defined benefit retirement plans.

During the past year, the Board also reviewed the results of a recent experience study for the General Plan. An experience study is a multi-year review of the actual experience of a retirement plan which often leads to a revision of actuarial assumptions. Consistent with a recent report that Minnesota residents have the second longest life expectancy (second only to Hawaii), the experience study by our consulting actuary revealed a dramatic increase in the life expectancy of MSRS' members and retirees. In just fifteen years, the expected life expectancy for a 65 year old male has increased by two years, while a 65 year old female is now expected to live 2 years, 4 months longer. While the increased life expectancy is good news for our members, it does add to the cost of the retirement plans. The longer life expectancy will drop the General Plan's funded ratio (determined on an actuarial value of assets basis) from 85.7 percent to 81.0 percent and increase required contributions by 2.4 percent.

In keeping with its cognizance of and commitment to our fiduciary responsibility, the Board will be recommending introduction of legislation for the 2016 Session aimed at increasing funding requirements to offset increasing pension liabilities and costs. Proposed legislative initiatives for the General Plan include: setting future post-retirement benefit increases at a fixed rate of 1.75 percent; removing current funding triggers in existing legislation; and increasing employee and employer contribution rates 0.5 percent and 1.5 percent, respectively, effective July 1, 2017. This plan's employer contribution rate of 5.5 percent is about half of the median employer contribution rates. These changes are necessary to continue the Board's goal of being proactive so that our pensions are financially sustainable and secure for all current and future pension recipients.

The Board is committed to being a leader in public pension plan policy. Since the Great Recession of 2009, the General Employees Retirement Plan's funded ratio, based on the market value of assets, has improved significantly from 65 percent to 88.8 percent. We strive to fulfill our fiduciary duty to provide a secure retirement plan for you, and we truly appreciate your continued support.

Sincerely,

Mary Bennes

Mary Benner, Chair Board of Directors

Letter of Transmittal



December 29, 2015

Board of Directors Minnesota State Retirement System 60 Empire Drive, Suite 300 St. Paul, MN 55103-3000

Dear Directors:

We are pleased to present this Comprehensive Annual Financial Report (CAFR) for the Minnesota State Retirement System (MSRS) for the fiscal year ended June 30, 2015, our 86th year of operation. The theme of this year's report is *Preserving Defined Benefit Retirement Plans*. The information contained in this report demonstrates how dedicated you are to fulfilling your fiduciary role to provide financially secure retirement plans for our membership. During the past year, you've given considerable attention to creating funding policy and advancing legislative initiatives for this purpose. These good governance practices merit considerable recognition. They are absolutely essential to realizing your vision of having MSRS' unfunded liabilities resolved in a prudent manner without burdening future generations.

Report Contents and Structure

This CAFR is designed to meet the reporting requirements of *Minnesota Statutes* 356.20. The preparation of this report, including the financial statements contained within, is the result of a collaborative effort of the MSRS Executive Director and MSRS' Finance Division staff under the direction of its Chief Financial Officer. Ultimate responsibility for the integrity of the data presented within this report and the fair presentation of the financial statements, in all material respects, lies with MSRS management. The MSRS Board of Directors provides an oversight role, and is assisted in this responsibility by its newly established four-person Audit Committee. The Audit Committee has the responsibility to oversee the adequacy and effectiveness of MSRS' system of internal controls, including controls over financial reporting. MSRS management is responsible for establishing and maintaining a system of internal controls over financial reporting. The objective of this internal control framework is to provide reasonable – not absolute – assurance that assets are safeguarded against loss or unauthorized disposition, financial records and reports are reliable, and MSRS has complied with all finance-related legal provisions. The concept of reasonable assurance recognizes the relationship between the cost of an internal control and the benefit likely to be derived, based on management's judgment. Management asserts, to the best of its knowledge and belief, that the internal controls over financial reporting are operating effectively as of June 30, 2015, to meet the purpose for which they were intended.

Inherent limitations exist in the effectiveness of any internal control system, including the possibility of human error, faulty decision-making, fraud, or management's overriding the system. Accordingly, even a well conceived and operating internal control system may not prevent or detect misstatements in the preparation of financial statements. Also, any projection of the evaluation of the effectiveness of internal controls to a future period is subject to risk that controls may become inadequate due to changing business conditions, or that the degree of MSRS compliance with established policies and procedures has deteriorated.

State law permits the Office of the Legislative Auditor (OLA), a professional, nonpartisan office in the legislative branch of Minnesota state government, to audit the financial statements and related note disclosures contained in this report. The OLA completed this audit in accordance with auditing standards generally accepted in the United States, and the standards applicable to financial audits contained in *Government Auditing Standards*. The OLA also reviewed the adequacy of our internal controls over financial reporting and compliance with certain legal provisions. The Legislative Auditor's opinion letter, the *Independent Auditor's Report*, is presented in the *Financial Section* of this CAFR. The auditors reported no material weaknesses in our internal controls.

The Financial Section of this report also contains Management's Discussion and Analysis. This narrative, found on pages 50-59, presents financial highlights and an overview of MSRS' financial statements for fiscal year 2015, along with an analysis of MSRS' defined benefit and defined contribution retirement funds. This letter of transmittal complements Management's Discussion and Analysis and should be read in conjunction with it.

MSRS' financial activities are also reflected in the pension trust fund financial statements included in the *Fiduciary Funds* section of the State of Minnesota's *Comprehensive Annual Financial Report*. This report is available online at http://www.mn.gov/mmb/accounting/reports.

About MSRS Funds

MSRS administers five defined benefit and four defined contribution funds, which are identified below. The fiduciary net position (total assets minus total liabilities to vendors, bondholders, and other parties) of these funds that is reserved for payments of pension benefits totaled almost \$20.5 billion as of June 30, 2015.

Defined Benefit Funds

- State Employees Retirement Fund, which includes General Plan employees and three special groups: Minnesota Department of Transportation pilots, deputy state fire marshals, and Military Affairs personnel;
- State Patrol Retirement Fund;
- Correctional Employees Retirement Fund;
- Judges Retirement Fund; and
- Legislators Retirement Fund, which includes members of the Legislators and Elective State Officers Retirement Plans.

Defined Contribution Funds

- Minnesota Deferred Compensation Fund (MNDCP);
- Unclassified Employees Retirement Fund;
- Health Care Savings Fund; and
- Supplemental Retirement Fund for Hennepin County.

For the defined benefit funds, MSRS serves approximately 54,700 active employees from over 20 employer and component units, 41,000 benefit recipients, and 25,700 members who are no longer contributing, but are eligible for either future monthly benefits or a lump-sum distribution. The fiduciary net position for these funds is nearly \$13.39 billion as of June 30, 2015.

Alternatively for the defined contribution funds, member participation and financial position as of June 30, 2015, varied significantly among these funds. MSRS serves approximately 82,600 participants in the MNDCP with a fiduciary net position totaling \$5.85 billion. Nearly 99,900 members participate in the Health Care Savings Fund with a fiduciary net position of nearly \$766 million. Over 3,200 members participate in the Unclassified Employees Retirement Fund with a fiduciary net position of about \$315 million. About 1,500 members participate in the Supplemental Retirement Fund for Hennepin County with a fiduciary net position of approximately \$149 million.

Major Initiatives

Fiscal year 2015 accomplishments included completion of many multi-year initiatives that contributed significantly to making MSRS a more efficient and financially secure retirement system. The year also marked the beginning of other important projects, aimed at moving MSRS even closer to achieving its business process improvement goals. These major initiatives are highlighted in the bullets on the next few pages.

• Aurora Migration Project was completed.

By June 30, 2015, MSRS staff, with assistance of Computer Sciences Corporation (CSC), completed the multi-year, multi-phase, \$18.4 million Aurora Migration Project on time and \$54.9 thousand under budget. Aurora is the name of MSRS' custom-built, business-critical participant account system. Although Aurora Migration Project outcomes are too numerous

Letter of Transmittal

to mention each specifically, the most significant deliverables deserve particular mention. These included: conversion of over 200 mainframe-based COBOL batch applications to JAVA, a more current and flexible technology platform; modernized applications and streamlined critical business processes, which increased overall productivity; improved member statement generation and printing processes; enhancements to members' online account layout and security; and stronger internal controls for system access and processes related to contributions, address changes, benefit payments, and deaths.

- A Request for Proposals (RFP) was developed for a long-term hosting solution for Aurora. In June 2015, staff completed an RFP seeking a qualified and experienced Infrastructure-as-a-Service (IaaS) provider. Staff selected IBM as the vendor and a multi-year contract was executed on November 30, 2015. IBM will assist in the successful migration of Aurora from its current hosting provider, MN.IT Services, to a new hosting environment. IBM will also provide ongoing off-site application and database hosting, as well as requested managed services, such as application monitoring. In this new hosting environment, Aurora will maintain all existing functionality. MSRS expects to gain service improvements in availability (e.g., application uptime for staff and members), additional security controls, considerable data processing-related cost savings and transparency, and enhanced technical knowledge to help MSRS' information technology professionals become more self-sufficient in troubleshooting issues.
- A new contract for recordkeeping and custodial services was executed and the transition process occurred. In February 2015, MSRS executed a new contract with Great-West Life & Annuity Insurance Company for Empower Retirement, the retirement services arm of the company, to provide recordkeeping and custodial services. Effective July 1, 2015, Empower succeeded Voya Financial® as the

recordkeeper for MSRS' four defined contribution retirement funds. MSRS selected Empower Retirement as a result of a thorough vendor selection process. Empower Retirement is the second largest retirement services provider in the United States, with nearly 7 million defined contribution participants and more than \$400 billion in plan assets. After many months of preparations and a two-week transition period, the transfer of each plan's records and account assets was completed on July 10, 2015.

• An Internal Audit Function and Audit Committee were established.

In September 2014, MSRS hired its first internal auditor to establish an internal audit function. This is an essential business activity that provides independent and objective assurance and consulting services. Such services are designed to add value and improve operations within MSRS. These services assist MSRS management in achieving agency goals and objectives by bringing a systematic, disciplined approach to evaluating and improving the effectiveness of risk manage ment, internal control, and various governance processes. To enhance the internal auditor's independence and the function's effectiveness, the Board established a four-person Audit Committee at its March 19, 2015, meeting. The Audit Committee supports the full board in fulfilling its fiduciary oversight responsibilities in several areas including financial reporting, risk management, and compliance with legal and regulatory requirements. It helps ensure MSRS management properly develops and adheres to a reliable system of internal controls, that procedures are in place to objectively assess management's practices, and that independent auditors (internal and external), through their own reviews, objectively assess MSRS' financial reporting practices. As its first course of business, the Audit Committee and MSRS internal auditor developed a charter that formally defines their purpose, authority, and responsibilities. The full board approved this charter at its November 19, 2015, meeting.

• MSRS successfully implemented GASB Statement No. 67 and collaborated with certain governmental employers to ensure a successful GASB Statement No. 68 implementation.

In June 2012, the Governmental Accounting and Standards Board (GASB) issued two new standards for pension accounting and financial reporting: GASB Statement No. 67, Financial Reporting for Pension Plans an Amendment of GASB Statement No. 25, and GASB Statement No. 68, Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27. MSRS implemented the first of the new standards, GASB Statement No. 67, with publication of its 2014 Comprehensive Annual Financial Report (CAFR) and CAFR Addendum, on December 30, 2014, and April 17, 2015, respectively. Both documents are available online at www.msrs.state.mn.us/financial-information. The 2014 CAFR included enhanced note disclosures and new required supplementary information. The 2014 CAFR Addendum contained supplemental schedules, an unqualified audit opinion on this data, and a clean Independent Auditor's Report on Internal Control over Financial Reporting and Compliance. This information was useful to MSRS' governmental employers contributing to its defined benefit retirement funds, including the state of Minnesota, in their implementation of GASB Statement No. 68 for fiscal year 2015. Throughout fiscal year 2015, MSRS' Finance Division professionals partnered with the governmental employers to transition to the new GASB Statement No. 68 pension requirements. MSRS held meetings, sent newsletters, and provided technical training and implementation aids to them. These activities enhanced the governmental employers' readiness to report their respective share of MSRS' net pension liability, pension income or expenses, and required disclosures in their 2015 financial statements and related notes.

 MSRS contracted with a new medical advisor and new disability processes were implemented. In October 2014, MSRS contracted with Managed Medical Review Organization, Inc. (MMRO) for disability claims management and medical review services. This triggered MSRS' implementation of new disability processes. By utilizing MMRO's services, MSRS improved its efficiency and effectiveness for processing pension disability claims.

- A new content managed website was deployed. In December 2014, MSRS rolled out a new content managed website. The new website features improved navigation and more timely information for members and other viewers.
- A comprehensive retirement packet became available for member use.

In April 2015, MSRS staff completed development of *Your Guide to Retirement*, a comprehensive packet for use by members contemplating retirement. It contains a checklist of important steps to take beginning 12 months before retirement, a list of important documents one will need when applying for retirement benefits, forms to complete, contact information of other retirement plan administrators, and information regarding receipt of benefits, income tax reporting, annual post-retirement increases, and re-employment after one's retirement date. This document is available online at www.msrs.state.mn.us/pension-plans-forms-docs.

• Essential Information Technology (IT) improvements were completed.

During fiscal year 2015, MSRS upgraded its phone system to replace outdated hardware and to enhance functionality. Staff also implemented a helpdesk ticketing system and a centralized log system to capture and monitor network activity.

- Other notable MSRS accomplishments during fiscal year 2015 include:
 - Delivery of enhanced new employee orientation materials that provided information about the agency's business continuity plans, Code of Conduct behavior expectations, and IT security policies and procedures.

Letter of Transmittal

- Completion of an employee engagement survey that measured employee satisfaction, management and leadership effectiveness, and work environment for purposes of identifying strengths and opportunities for staff growth and training.
- Conversion of 33 percent of essential retirement contribution records maintained on microfiche into electronic images for future importation into MSRS' document management system.
- Successful failover testing of MSRS' computer network for business continuity purposes.
- Restructuring the entire business continuity plan and completing documentation for the first of four phases toward eventual business resumption, which focuses on declaration of an incident and initial preparations toward recovery of priority services.
- Acquisition of additional office space on the third floor of the Retirement Services Building, which increased our building ownership ratio from 26.8 percent to 27.5 percent, effective July 1, 2015.

• Two key legislative changes impacted funding levels for MSRS' defined benefit retirement plans.

- With the enactment of the 2015 Omnibus Retirement Bill, the state's investment return assumption was lowered from 8.5 percent to 8.0 percent, effective July 1, 2015. Salary increase and payroll growth assumptions were also reduced. Since historically low interest rates have driven projected investment returns lower, the Board believed it was prudent to propose these changes for MSRS. Lowering the investment return assumption increases the total pension liability and reduces the funded ratio for each of MSRS' defined benefit retirement plans.
- Legislation was also enacted for a self-correcting adjustment to annual post-retirement benefit increases effective July 1, 2015, for all of MSRS' defined benefit retirement plans. Under the new law, the rate of the annual post-retirement benefit increase will automatically adjust to the changing

funding levels of a plan. For illustration purposes, assume that the State Employees Retirement Fund (the Fund) achieves a 90 percent funded ratio (determined on a market value of assets basis) for two consecutive years. When this happens, the current post-retirement benefit adjustment will increase from the current 2 percent rate to 2.5 percent rate. Under the previous law, if the financial markets slumped, and funding status declined, the Fund would continue to pay a 2.5 percent annual increase on retirement benefits. The new law requires the post-retirement benefit increase to drop to 2 percent if the funding level falls below 85 percent for two consecutive years or 80 percent for one year. The MSRS board also proposed this change, believing this mechanism will help stabilize funding levels for MSRS' largest defined benefit retirement funds through market swings and will prevent current employees and employers from carrying the entire financial burden of a plan's unfunded liability.

Fiscal year 2016 goals focus in four primary areas: technology, regulatory compliance, participant services, and staff development. In the technology area, MSRS plans to strengthen IT leadership, with the hiring of a Chief Information Officer. MSRS also targets completion of the Aurora hosting project, MSRS' comprehensive security management plan, the microfiche conversion project, and enhancements to Aurora and Account Online during the 2016 fiscal year. Future plans also include the implementation of a new financial accounting and reporting system, Microsoft Dynamics GP, to replace MSRS' existing general ledger. Continued efforts will be placed on enhancing the security of MSRS' systems and data with multifactor authentication and greater encryption.

By the end of January 2016, MSRS will file determination letter requests with the Internal Revenue Service (IRS) for its four largest defined benefit retirement plans and the Unclassified Employees Retirement Plan. These filings are necessary to obtain assurance that MSRS' retirement plans remain qualified and eligible for tax benefits.

Several improvements in participant services are planned for fiscal year 2016. MSRS intends to improve generation of members' annual retirement benefit statements and to eliminate the backlog of members' requests for retirement estimates. MSRS also aims to expand on web-based retirement tools for its pension plans. MSRS management will continue ongoing discussions with the State Board of Investment regarding investment options for defined contribution plan participants.

During fiscal year 2016, MSRS will continue to learn the new recordkeeping platform for MSRS' defined contribution funds. MSRS plans to build on StrengthsFinder training for its leadership team. Succession planning endeavors will continue in hopes of naming our successors prior to our retirements in fiscal year 2017. Beginning in January 2016, the MSRS board will define the process and set the timeline for hiring a new executive director. The chief financial officer position posting is currently open and is expected to be advance filled in spring 2016.

Financial Information

Accounting System and Reports

MSRS prepares its financial statements in accordance with generally accepted accounting principles promulgated by GASB. Transactions are reported on the accrual basis of accounting. Contributions from employers and members are recognized as revenue when earned. Expenses are recorded when corresponding liabilities are incurred, regardless of when payment is made. Most financial transactions are processed through the Statewide Integrated Financial Tools (SWIFT) system under the oversight of the department of Minnesota Management and Budget.

Financial Summary

The schedule below is a comparative summary of total additions and total deductions that determine the change in fiduciary net position for MSRS' defined benefit and defined contribution funds for the fiscal years ended June 30, 2015 and 2014. Total additions represent employee and employer contributions and net investment income. Total deductions include annuity payments, refunds, health care reimbursements, ongoing deferred compensation and other defined contribution plan withdrawals, and administrative expenses. With a 4.4 percent investment return for fiscal year 2015, MSRS realized an increase of over \$416 million in the fiduciary net position for all MSRS pension trust funds for fiscal year 2015. This amount includes an increase of over \$163 million for MSRS' defined benefit funds and an increase of more than \$253 million for its defined contribution funds.

SUMMARY STATEMENT OF CHANGES IN FIDUCIARY NET POSITION ALL MSRS PENSION TRUST FUNDS

For the Fiscal Years Ended June 30, 2015 and 2014 (Dollars in thousands)

	Defined B	enefit Funds	Defined Cont	ribution Funds
Source	FY 2015	FY 2014	FY 2015	FY 2014
Total Additions	\$993,844	\$2,466,864	\$679,021	\$1,243,917
Total Deductions	830,797	780,737	425,744	362,535
Net Increase (Decrease)				
in Net Position	\$163,047	\$1,686,127	\$253,277	\$881,382
Fiduciary Net Position -				
beginning of year	\$13,226,814	\$11,540,687	\$6,826,623	\$5,945,241
Fiduciary Net Position -				
end of year	\$13,389,861	\$13,226,814	\$7,079,900	\$6,826,623

Letter of Transmittal

Actuarial Valuations

MSRS contracted with Gabriel Roeder Smith & Company (GRS) of Minneapolis, Minnesota to perform two annual actuarial valuations for each MSRS defined benefit fund and to provide other actuarial consulting and advisory services during fiscal year 2015.

The first set of actuarial valuations is to determine actuarial valuation information necessary to prepare financial reports in compliance with GASB Statements No. 67 and Statement No. 68, including the computation of the net pension liability, pension income or expense, enhanced note disclosures, and expanded *Required Supplementary Information* (RSI). More detail regarding these financial reporting actuarial valuations may be found in the *Notes to the Financial Statements* in the *Financial Section* of this CAFR.

The second set of actuarial valuations are the traditional funding valuations. These valuations report funding progress, the required contribution rate, contribution sufficiency or deficiency levels, and other actuarial information necessary for monitoring each defined benefit retirement plan's funding status.

Retirement Plan Actuarial Position and Funding Status

The traditional funding actuarial valuations for each defined benefit fund measure current costs and contribution requirements to determine how much employers and members should contribute to maintain appropriate funding levels to pay future benefits. These traditional funding actuarial valuations also measure assets and actuarial accrued liabilities to determine the funding status for each defined benefit plan that MSRS administers. Improvement in the funding status leads to a larger ratio of assets to actuarial accrued liabilities, and a greater level of investment income potential. A high funded ratio gives members assurance that their pensions are financially secure, and that existing assets and projected investment earnings on those assets are sufficient to cover the liabilities for present and future annuities, survivor and disability benefits, refunds, and administrative expenses.

The schedule below highlights the actuarial value of assets, actuarial accrued liability, funded ratio and contribution deficiency (expressed as a percent of payroll except for Legislators Retirement Fund, which is expressed in dollars because it is a closed plan) for each defined benefit fund as of the latest actuarial valuation date, July 1, 2015.

For the State Employees Retirement Fund and the State Patrol Retirement Fund, the contribution deficiencies, determined on an actuarial value of assets basis as of the July 1, 2015, valuation date, decreased in comparison to the contribution deficiencies one year earlier due, in large part, to the recognition of deferred asset gains from previous years. For the remaining funds, the recognition of these gains was not sufficient to offset the increases in actuarial accrued liability resulting from changing actuarial assumptions. For all funds, these contribution deficiencies remain sizeable. The MSRS Board of Directors

HIGHLIGHTS OF THE 2015 ACTUARIAL VALUATIONS

(Dol	lars	in	thousands)	
1	DOL	iars	111	unousanus	

Actuarial Value of Assets	Actuarial Accrued Liability	Funded Ratio	Contribution Deficiency
\$11,223,285	\$13,092,702	85.72%	1.44%
639,863	833,033	76.81	7.98
878,624	1,239,258	70.90	5.46
168,235	315,633	53.30	11.89
3,430	230,219	1.49	\$21,908
	of Assets \$11,223,285 639,863 878,624 168,235	of Assets Liability \$11,223,285 \$13,092,702 639,863 833,033 878,624 1,239,258 168,235 315,633	of AssetsLiabilityRatio\$11,223,285\$13,092,70285.72%639,863833,03376.81878,6241,239,25870.90168,235315,63353.30

* Unlike the other defined benefit retirement funds, the Legislators Retirement Fund is financed on a pay-as-you-go basis.

continues to monitor funding status and contribution deficiency rates and will take appropriate action, as necessary, to ensure the financial security of the retirement funds. At the November 19, 2015, meeting, the board proposed legislative initiatives for the General Plan (the largest retirement plan in the State Employees Retirement Fund) including: setting future post-retirement benefit increases at a fixed rate of 1.75 percent; removing current funding triggers in existing legislation; and increasing employee and employer contribution rates 0.5 percent and 1.5 percent, respectively, effective July 1, 2017.

For the State Patrol Retirement Fund, the current contribution deficiency reflects state contributions of \$1 million made annually on October 1 beginning in 2013 and continuing until both the Public Employees Retirement Association Police and Fire Fund and the MSRS State Patrol Retirement Fund reach a 90 percent funded ratio determined on a market value of assets basis. For the State Patrol Fund, the contribution deficiency includes additional member and employer contribution rates totaling 2.5 percent (1.0 percent and 1.5 percent, respectively) that are scheduled to take effect July 1, 2016.

For the Judges Retirement Fund, the two-tier benefit program that took effect July 1, 2013, is expected to ultimately reduce the cost of the plan. Similarly, for the Correctional Employees Retirement Fund, plan changes affecting members first hired after June 30, 2010 (e.g., 10-year phased vesting requirements and a lower benefit formula) are expected to ultimately reduce the cost of the plan, but have not yet impacted the actuarial valuation results.

The Minnesota Legislature, along with the MSRS Board of Directors, reviews annual valuation reports of the actuarial funding status of the retirement systems. The Legislature has the authority to modify contribution rates to ensure that the retirement systems are adequately funded over the long term. Historically, legislators have increased contribution rates only if a long-term trend of weak investment returns and declining funding levels necessitate higher contribution rates.

Current law for the General State Employees, Correctional Employees, and State Patrol Retirement Funds allows the MSRS Board of Directors to change employee and employer contribution rates to eliminate contribution deficiencies over time, unless the Legislative Commission on Pensions and Retirement denies or modifies any rate changes. Specifically, for the General State Employees Retirement Fund, which experienced two consecutive actuarial valuations with contribution deficiencies between 2 and 4 percent of covered payroll, the MSRS Board approved increases in both the employee and employer contribution rates. The contribution rate increased to 5.5 percent for both the employee and employer effective the first full pay period in July 2014. Similarly, for the Correctional Employees Retirement Fund, which experienced two consecutive actuarial valuations with contribution deficiencies greater than four percent of covered payroll, the MSRS Board approved increases to employee and employer contribution rates that also took effect the first full pay period in July 2014. The employee contribution rate increased from 8.60 percent to 9.10 percent and the employer contribution rate increased from 12.10 percent to 12.85 percent. Lastly, for the State Patrol Retirement Fund, which experienced two consecutive actuarial valuations with contribution deficiencies greater than four percent of covered payroll, employer and employee contribution rate increases also took effect the first full pay period in July 2014. The employee contribution rate increased from 12.4 percent to 13.4 percent and the employer contribution rate increased from 18.6 percent to 20.1 percent.

The assumptions and actuarial methods used in the traditional funding valuations are in accordance with Minnesota Statutes, Section 356.215. The actuarial method used to determine the actuarial accrued liabilities and required contribution was the individual entry age normal cost method. For fiscal year 2015, economic assumptions were all reduced from those used in the July 1, 2014, valuations. Specifically, the discount rate or investment return assumption was reduced from 8.0 percent through June, 2017 and 8.5 percent thereafter, to 8.0 percent for all years. The payroll growth, salary increase, and inflation assumptions were all reduced by 0.25 percent. For all plans except the Judges Retirement Plan, which has a fixed rate, the increasing actuarial accrued liabilities led to a change in the assumption for post-retirement benefit increases, delaying the years of increase. All other actuarial methods and assumptions remained the same as those used in the July 1, 2014, actuarial valuations. The actuarial methods, assumptions, and funding status of MSRS' defined benefit retirement plans are detailed in the Actuarial Section of this report.

Letter of Transmittal

Investment Results

In accordance with the Minnesota Constitution, the State Board of Investment (SBI) invests the assets of MSRS' funds. The Board includes Governor Mark Dayton, Attorney General Lori Swanson, Secretary of State Steve Simon, and State Auditor Rebecca Otto. For all investments under the SBI's management, the Board, the 17-member Investment Advisory Council (IAC) to the board (which includes the MSRS executive director), and the SBI staff are governed by the prudent person rule, and fiduciary standards detailed in *Minnesota Statutes*, Chapters 11A and 356A. The Board, in consultation with the IAC and the SBI staff, establishes asset allocation and other investment policies and guidelines, and conducts detailed investment analyses of the funds under its control.

MSRS does not own specific securities, but instead owns shares in various pools invested by the SBI. During fiscal year 2015, the domestic stock pool reported a 7.7 percent return (net of fees), greater than the Russell 3000 Index by 0.4 percentage points. The bond pool posted a 2.1 percent return (net of fees) for fiscal year 2015, 0.2 percentage points higher than the Barclays Capital Aggregate Bond Index. The International Stock Pool reported a 3.8 percent loss (net of fees) for the 2015 fiscal year, still performing better than the Morgan Stanley Capital International All Country World Index excluding the United States (which represents the developed and emerging international markets outside the U.S.) for the fiscal year by 1.5 percentage points. Within this investment environment, the Combined Funds, which represent all defined benefit pension assets under the SBI's control, reported a 4.4 percent return (net of fees) for the 2015 fiscal year. Annualized over the latest ten-year period, the Combined Funds generated a 7.8 percent return (net of fees), outperforming a composite market index (weighted in manner that reflects the long-term asset allocation of the Combined Funds over the latest ten-year period as indicated in the following table) by 0.3 percentage points.

Investment Type	Market Indicator	Long-Term Policy Target
Domestic Equity	Russell 3000 Index	45.0%
International Equity	Morgan Stanley Capital International World	
	All County World Index Ex-U.S.	15.0
Alternative Assets	Alternative investments are measured against	
	themselves using actual portfolio returns	20.0
Bonds	Barclays Capital Aggregate Bond Index	18.0
Unallocated Cash	3-Month Treasury Bills	2.0
		100.0%

COMBINED FUNDS ASSET MIX AND MARKET INDICES

Please refer to the *Investment Section* for additional details on the investment results of MSRS' largest defined benefit retirement funds for fiscal year 2015.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Minnesota State Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2014. This was the sixth consecutive year that MSRS has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate. We are also very pleased to report that MSRS received the Public Pension Coordinating Council's (PPCC) Public Pension Standards 2015 Award, in recognition of meeting professional standards for plan administration as set forth in the Public Pension Standards. These standards were developed by a coalition of three associations that represent public pension funds who cover the vast majority of public employees in the U.S. They are intended to reflect minimum expectations for public retirement systems management and administration, and serve as a benchmark by which all defined benefit public plans should be measured. The PPCC has offered this award program to public retirement systems for the past twelve years. MSRS is proud to be a recipient of this award.

Membership Report

This report provides complete and reliable information on which management decisions may be based and through which compliance with statutory requirements may be assessed. It is reproduced, in its entirety, on MSRS' website at http://www.msrs.state.mn.us/financial-information. A summary of the CAFR will be published in the next issue of the *Messenger*, MSRS' newsletter.

Acknowledgements

With our retirements on the horizon, we would like to take this very special opportunity to express our utmost gratitude to the MSRS Board of Directors, and all of the outstanding MSRS staff, advisors and business associates. Each has given so much of their time and talent to preserving our defined benefit retirement plans and members' financial security, and to make what is best in MSRS even better.

Looking back nearly nine years, you wouldn't recognize MSRS as it exists today. One of the first business decisions we made jointly was to place a white board in MSRS' small conference room and the rest was history.

Respectfully submitted,

Bergham

David Bergstrom Executive Director

We've come so far to get to where we need to be, and celebrated many successes! How fortunate we are to have had the pleasure to work with so many outstanding, hard-working, tremendously dedicated and exceptional individuals to provide service to the MSRS Board and its membership! We are extraordinarily grateful to have had this opportunity.

On a personal note, as MSRS' Chief Financial Officer, I wish to express my deepest appreciation to a very special ensemble who have partnered with me to produce this CAFR year after year: Finance Project Manager Cheryl Jahnke, Finance Manager Joan Weber, and former MSRS Communications Officer Deb Otto (presently employed with Public Employees Retirement Association of Minnesota). Rarely in one's career is one blessed to experience true teamwork! We instantly bonded as friends and became a highly effective, productive, and cohesive team. We shared a common goal to produce an award-winning CAFR; it was always our favorite project that we enjoyed immensely, even during CAFR-crunch efforts to meet critical deadlines. This year, I also wish to extend my utmost appreciation to Jason White, a newcomer to the CAFR team, for his assistance analyzing financial activities of our defined contribution funds and especially for his superior editorial skills in review of draft versions of the 2015 CAFR.

I join the entire CAFR team in expressing immense gratitude to Maureen McIlhargey, an outside consultant, for her extraordinary desktop publishing skills and expertise in producing this CAFR, and for her remarkable creative genius as demonstrated in the layout and design of the CAFR cover and section pages.

I will fondly treasure memories of our working together. I will always value the CAFR and all of the incredible effort put into it. I will look forward to reading future editions throughout my retirement. I'm confident that MSRS will continue to excel in its efforts to preserve our pension plans and stay true to its mission.

Juditi M. Hunt

Judith M. Hunt, CPA (inactive), CIA Chief Financial Officer

MSRS Board of Directors, Administrative Staff and Professional Consultants

As of June 30, 2015

Board of Directors

All board member positions are four-year terms, unless specified otherwise.

Mary Benner, Chair

Appointed by Governor Term expires: January 7, 2019

Gabe Cornish

State Patrol Representative Appointed by Board to complete an elected member's term Term expires: May 7, 2018

Joseph Strunk

Correctional Plan Representative Appointed by Board to complete an elected member's term Term expires: May 2, 2016

Chester Jorgenson

Elected by General and Unclassified Plans Membership Term expires: May 7, 2018

Tommy Bellfield

Appointed Representative for employees of Metropolitan Council's Transit Division Term expires: at the discretion of the Executive Board for the Amalgamated Transit Union, Local 1005

Key Administrative Staff

Executive Director: David Bergstrom

Chief Financial Officer: Judith M. Hunt

Assistant Executive Director -Retirement Services: Erin M. Leonard

Myron Frans, Commissioner

Minnesota Management and Budget Appointed by Governor Term expires: January 7, 2019

Tom Ruter

General and Unclassified Plans Representative Appointed by Board to complete an elected member's term Term expires: May 2, 2016

Dave Senf

Elected by General Plan Membership Term expires: May 7, 2018

Sally (R.W.) Olsen

Appointed by Governor Term expires: January 2, 2017

Wes Skoglund

Elected Retiree Representative Term expires: May 2, 2016

Michael Schweyen

Elected by General and Unclassified Plans Membership Term expires: May 2, 2016

The Board Vice Chair position was vacated in May 2015. Sally (R.W.) Olsen was elected on July 16, 2015.

Professional Consultants

Actuary: Gabriel Roeder Smith & Company

Legal Counsel:

Assistant Attorney General Rory Foley Assistant Attorney General Kevin Finnerty

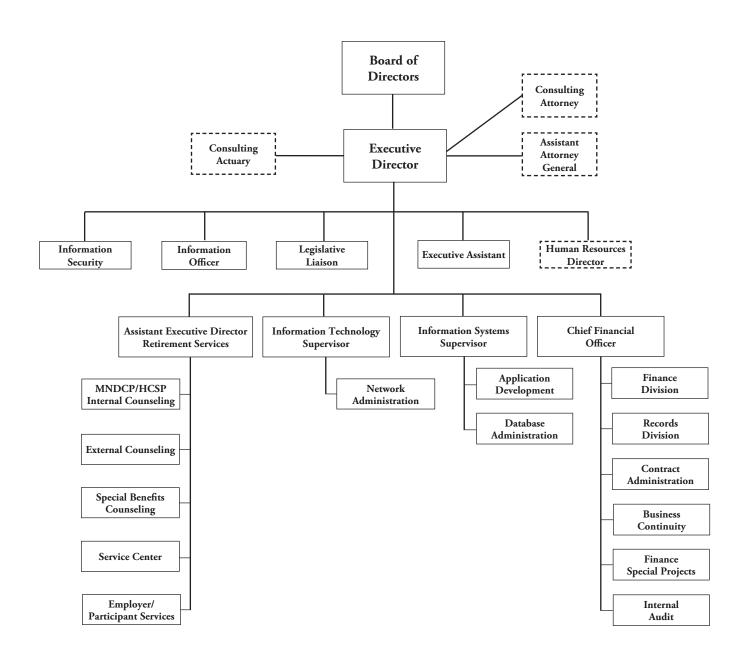
Medical Advisor:

MMRO - Managed Medical Review Organization

NOTE: MSRS invests its funds in various investment pools administered by the Minnesota State Board of Investment (SBI). The SBI retains various investment advisors whose fees are paid by the pool participants, including MSRS. A schedule of these advisors and MSRS' share of their fees is included on page 125 of the *Investment Section* of this CAFR.

Organization Chart

As of June 30, 2015



Mission Statement

To administer financially secure retirement plans, a tax-free health care savings plan, and a low-cost deferred compensation plan; ensure timely benefit payments; be proactive in public pension policies; and provide exemplary customer service, through a one-stop shopping source.

The following is a summary of the major plan provisions for MSRS' defined benefit retirement plans. Within the General Employees Retirement Plan are three special groups: Military Affairs, Transportation Pilots, and Fire Marshals Retirement Plans. These special groups have the same plan provisions as the General Employees Retirement Plan, except as noted below.

Plan descriptions are not all inclusive. Descriptions provide general information only.

GENERAL EMPLOYEES	MILITARY AFFAIRS, TRANSPORTATION PILOTS, AND FIRE MARSHALS	STATE PATROL
STATUTORY OR LEGAL REFERE	NCES:	
Minn. Stat. §352.01 - 352.76	Minn. Stat. §352.85 - 352.87	Minn. Stat. §352B
COVERAGE:		
 Most state employees, University of Minnesota non-instructional employees, and selected metropolitan agency employees 	 Military Affairs: Minnesota Department of Military Affairs personnel on active duty Transportation Pilots: pilots and chief pilots employed by the Minnesota Department of Transportation Fire Marshals: employees of the Department of Public Safety, State Fire Marshal Division, who are employed as deputy state fire marshal, fire or arson investigator 	• State troopers, conservation officers, and certain crime bureau and gambling enforcement agents

Effective July 1, 2013, the Elective State Officers Retirement Plan is a special group within the Legislators Retirement Fund. This special group has the same plan provisions as the Legislators Retirement Plan, except as noted below.

Plan provisions specific to MSRS' defined contribution plans follow this section.

CORRECTIONAL EMPLOYEES	JUDGES	LEGISLATORS	ELECTIVE STATE OFFICERS
STATUTORY OR LEGAL RE	FERENCES:		
Minn. Stat. §352.90 - 352.955	Minn. Stat. §490	Minn. Stat. §3A	Minn. Stat. §3A.17
COVERAGE:			
 Certain state employees who spend at least 75 percent working time in direct contact with inmates or patients at Minnesota Correctional Facilities, the state-operated forensic services program, or the Minnesota Sex Offender Program 	 District, appellate and supreme court judges Retirees include former municipal and county court judges Members belong to either the Tier 1 or Tier 2 benefit program Tier 1 includes judges first appointed or elected before July 1, 2013 Tier 2 includes judges first appointed or elected after June 30, 2013 A judge with less than five years of allowable service as of December 30, 2013, may make a one-time irrevocable election into the Tier 2 benefit program. 	 Legislators first elected before July 1, 1997 Effective July 1, 1997, newly-elected legislators are covered by the Unclassified Employees Retirement Plan. 	 Constitutional Officers first elected prior to July 1, 1997, and who chose to retain coverage under this plan Effective July 1, 1997, newly-elected constitutional officers are covered by the Unclassified Employees Retirement Plan. All current constitutional officers were elected after July 1, 1997; therefore, this plan is closed.

GENERAL EMPLOYEES	MILITARY AFFAIRS, TRANSPORTATION PILOTS, AND FIRE MARSHALS	STATE PATROL
CONTRIBUTION RATES:		
 Employee: 5.5 percent of salary Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h) 	 Military Affairs: Employee: 7.1 percent of salary Employer: 7.1 percent of salary Transportation Pilots: Employee: 7.1 percent of salary Employer: 7.1 percent of salary Deputy Fire Marshals: Employee: 8.28 percent of salary Employer: 9.70 percent of salary 	 Employee: 13.4 percent of salary Increases to 14.4 percent July 1, 2016 Employer: 20.1 percent of salary Increases to 21.6 percent July 1, 2016 A supplemental state aid of \$1 million is paid annually to the fund until both the Public Employees Retirement Association (PERA) Police and Fire Retirement Fund and the MSRS State Patrol Retirement Fund become 90 percent funded on a market value of assets basis. Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h)
VESTING:		
 Members hired before July 1, 2010: Three years of allowable service Members hired after June 30, 2010: Five years of allowable service 	• Same as General Employees	 Members hired before July 1, 2013: Three years of allowable service Members hired after June 30, 2013: Ten years of allowable service

CORRECTIONAL EMPLOYEES	JUDGES	LEGISLATORS	ELECTIVE STATE OFFICERS
CONTRIBUTION RATES:			
 Employee: 9.1 percent of salary Employer: 12.85 percent of salary Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h) 	 Tier 1: Employee: 9.0 percent of salary Employer: 22.5 percent of salary Tier 1 employee contributions are redirected to the Unclassified Employees Retirement Plan after the member reaches the maximum retirement benefit limit. Tier 2: Employee: 7.0 percent of salary Employer: 22.5 percent of salary Tier 1 and Tier 2: Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h) 	 Employee: 9.0 percent of salary Employer: funded by annual appropriation, as needed, from the State's General Fund Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h) 	• Plan is funded by annual appropriation from the State's General Fund
VESTING:			
 Members hired before July 1, 2010: 100 percent vested after three years of allowable service Members hired after June 30, 2010: Graded vesting applies, ranging from 50 percent vested after five years of allowable service to 100 percent vested after ten years of allowable service 	• Five years of allowable service	• Six years of allowable service	• Same as Legislators

GENERAL EMPLOYEES	MILITARY AFFAIRS, TRANSPORTATION PILOTS, AND FIRE MARSHALS	STATE PATROL
RETIREMENT ELIGIBILITY:		
 Vested employees hired before July 1, 1989: Full retirement benefits at age 65 Full retirement benefits if age plus years of service total 90 or more (Rule of 90) Reduced benefits at age 55 Reduced benefits at any age with 30 years of service Vested employees hired after June 30, 1989: Full retirement benefits at the age eligible for full Social Security retirement benefits (but not later than age 66) Reduced benefits at age 55 	 For vested Military Affairs members: Full retirement benefits at age 60 For vested Transportation Pilots: Full retirement benefits at age 62 For vested Fire Marshals: Full retirement benefits at age 60 	 For vested employees: Full retirement benefits at age 55 Reduced retirement benefits at age 50
ANNUITY OPTIONS:		
 Single-Life annuity: Benefit for the life of the member only 50, 75, or 100 percent Joint-and- Survivor with a bounce-back feature: Monthly benefits for the life of the member, then benefits at the chosen percentage for the life of the survivor after the member death Monthly benefits increase (bounce back) to the higher, single-life amount if the survivor dies before the member 15-Year Certain and Life Thereafter: Lifetime benefit for the member for a minimum of 15 years If the member dies before he or she has received a benefit for 15 years, the named survivor receives a benefit for the balance of the 15 years. 	• Same as General Employees	• Same as General Employees

CORRECTIONAL EMPLOYEES	JUDGES	LEGISLATORS	ELECTIVE STATE OFFICERS
RETIREMENT ELIGIBILIT For vested employees: • Full retirement benefits at age 55	 FY: For vested employees: Tier 1: Normal retirement age is 65; mandatory retirement is at 	For vested employees: • Full retirement benefits at age 62	For vested employees: • Full retirement benefits at age 62
• Reduced retirement benefits at age 50	 Tier 2: Normal retirement age is 66; mandatory retirement is at age 70. Tier 1 and Tier 2: Reduced retirement benefits at age 60. 	• Reduced retirement benefits at age 55	• Reduced retirement benefits at age 60
ANNUITY OPTIONS:			

Same as General Employees	 Single-Life annuity 	 Single-Life annuity with
		automatic 50 percent
	• 50, 75, or 100 percent	survivor coverage
	Joint-and-Survivor with the	_
	bounce-back feature	• 100 percent Joint-
		and-Survivor with the
	• 50, 75, or 100 percent	bounce-back feature
	Joint-and-Survivor without	
	the bounce-back feature	
	- monthly benefits will	
	remain the same if the	
	survivor dies before the	
	member (without the	
	bounce-back feature)	
	~~~~~~	
	• 15-year Certain and Life	
	Thereafter	

• Single-Life annuity with automatic 50 percent survivor coverage

GENERAL EMPLOYEES	MILITARY AFFAIRS, TRANSPORTATION PILOTS, AND FIRE MARSHALS	STATE PATROL
BENEFIT FORMULA:		
<ul> <li>Employees hired before July 1, 1989:</li> <li>The benefit formula is the greater of:</li> <li>(a) 1.2 percent of a high-five average salary for the first 10 years of allowable service, plus 1.7 percent of high-five average salary for each subsequent year. Benefit is reduced for each month the member is under age 65 at the time of retirement, or reduced for each month the member is under age 62 with 30 years of allowable service.</li> <li>OR</li> <li>(b) 1.7 percent of high-five average salary for each year of allowable service. Benefit is reduced for each month the member is under age 65.</li> <li>There is no reduction if the member's age plus years of allowable service total 90 or more (Rule of 90).</li> <li>Employees hired after June 30, 1989:</li> <li>1.7 percent of high-five average salary for each year of allowable service. Benefit is reduced for each month the member is under the normal retirement age.</li> <li>For all benefit calculations:</li> <li>Salary includes wages or other periodic compensation, but excludes lump sum payments at separation, employer contributions to deferred compensation and tax sheltered annuity plans, and benevolent vacation and sick leave donation programs.</li> <li>The high-five average salary is the average salary from the sixty successive month period with the highest gross salary.</li> </ul>	• Same as General Employees	<ul> <li>3.0 percent of high-five average salary for each year of allowable service up to 33 years. Contributions above the service cap are refunded at retirement.</li> <li>Members with at least 28 years of service as of July 1, 2013, are not subject to the allowable service limit.</li> </ul>

#### CORRECTIONAL EMPLOYEES

#### JUDGES

#### LEGISLATORS

#### ELECTIVE STATE OFFICERS

#### **BENEFIT FORMULA:**

## Employees hired before July 1, 2010:

• 2.4 percent of high-five average salary for each year of allowable service

## Employees hired after June 30, 2010:

• 2.2 percent of high-five average salary for each year of allowable service

#### For all benefit calculations:

• Members have the option of choosing an accelerated annuity to age 62 or 65, with an actuarially-adjusted benefit thereafter. This will provide a higher benefit until the chosen age, then a lower, permanent amount to cover the remaining retirement years.

### Tier 1 Benefit Program:

- 2.7 percent of high-five average salary for each year of allowable service prior to July 1, 1980, plus 3.2 percent of high-five average salary for each year of allowable service after June 30, 1980
- The maximum benefit is capped at 76.8 percent of the high-five average salary.

#### Tier 2 Benefit Program: Judges elected before July 1, 2013:

3.2 percent of high-five average salary for each year of allowable service prior to January 1, 2014, plus
2.5 percent of high-five average salary for each year of allowable service after December 31, 2013

#### Judges elected after June 30, 2013:

- 2.5 percent of high-five average salary for each year of allowable service
- No maximum benefit limit applies to Tier 2 members.

# Tier 1 and Tier 2 Benefit Programs:

• The high-five average salary is determined using only the final ten years of employment.

## Legislators elected prior to January 1, 1979:

 5.0 percent of high-five average salary for the first eight years of allowable service prior to January 1, 1979, plus 2.5 percent for subsequent years

# Legislators elected after December 31, 1978:

• 2.5 percent of high-five average salary

• 2.5 percent of high-five average salary

### GENERAL EMPLOYEES

MILITARY AFFAIRS, TRANSPORTATION PILOTS, AND FIRE MARSHALS

#### STATE PATROL

#### **POST-RETIREMENT BENEFIT INCREASES:**

- Benefit recipients receive annual 2.0 percent benefit increases on January 1.
- Annual benefit increases will revert to 2.5 percent when the Plan's funded ratio reaches 90 percent or higher determined on a market value of assets (instead of an actuarial value of assets) basis for two consecutive years.
- After receiving a 2.5 percent postretirement benefit increase, annual post-retirement benefit increases will be reduced to 2.0 percent if the Plan's funded ratio falls to 85 percent or less determined on a market value of assets basis for two consecutive years, or to 80 percent or less for the most recent actuarial valuation.
- Retirees who have been receiving a benefit for at least 12 full months as of June 30 of the calendar year immediately before the post-retirement benefit increase adjustment will receive the full increase. Members receiving benefits for at least one month, but less than 12 full months, will receive a pro rata increase.

Same as General Employees

- Benefit recipients receive annual 1.0 percent benefit increases on January 1.
- Annual benefit increases will revert to 1.5 percent when the Plan's funded ratio reaches 85 percent or higher determined on a market value of assets basis for two consecutive years.
- After receiving a 1.5 percent postretirement benefit increase, annual post-retirement benefit increases will be reduced to 1.0 percent if the Plan's funded ratio falls to 80 percent or less determined on a market value of assets basis for two consecutive years, or to 75 percent or less for the most recent actuarial valuation.
- Annual benefit increases will revert to 2.5 percent when the Plan's funded ratio reaches 90 percent or higher determined on a market value of assets basis for two consecutive years.

CORRECTIONAL EMPLOYEES	JUDGES	LEGISLATORS	ELECTIVE STATE OFFICERS
POST-RETIREMENT BENE	EFIT INCREASES:		
• Same as General Employees	<ul> <li>Benefit recipients receive annual 1.75 percent benefit increases on January 1.</li> <li>Annual benefit increases will revert to 2.0 percent when the Plan's funded ratio reaches 70 percent determined on a market value of assets basis for two consecutive years.</li> <li>Annual benefit increases will revert to 2.5 percent when the Plan's funded ratio reaches 90 percent determined on a market value of assets basis for two consecutive years.</li> </ul>	<ul> <li>Benefit recipients receive annual 2.0 percent benefit increases on January 1.</li> <li>Annual benefit increases will revert to 2.5 percent when the funded ratio of the State Employee Retirement Fund reaches 90 percent determined on a market value of assets basis for two consecutive years.</li> <li>After receiving a 2.5 percent post-retirement benefit increase, annual post-retire- ment benefit increases will be reduced to 2.0 percent if the funded ratio of the State Employee Retirement Fund falls to 85 percent or less determined on a market value of assets basis for two consecutive years, or to 80 percent or less for the most recent actuarial valuation.</li> </ul>	• Same as Legislators

GENERAL EMPLOYEES	MILITARY AFFAIRS, TRANSPORTATION PILOTS, AND FIRE MARSHALS	STATE PATROL
SURVIVOR BENEFITS:		
<ul> <li>If a member dies while still an active employee, the spouse is eligible for a 100 percent survivor annuity or a refund if:</li> <li>(a) The member was hired prior to July 1, 2010, and had at least three years of service at death,</li> <li>OR</li> <li>(b) The member was hired after June 30, 2010, and had at least five years of service at death.</li> <li>Dependent children are eligible for the monthly benefit until age 20 if there is no surviving spouse.</li> </ul>	• Same as General Employees	<ul> <li>If a member dies while still an active employee, the spouse is eligible for 50 percent of the final average salary if:</li> <li>(a) The member was hired before July 1, 2013, had three or more years of allowable service, and died before attaining age 55,</li> <li><u>OR</u></li> <li>(b) The member was hired after June 30, 2013, and had at least five years of allowable service.</li> <li>The spouse's benefit changes to a 100 percent Joint-and-Survivor annuity when the employee would have reached age 55.</li> <li>A dependent child's benefit is 10 percent of the member's final average salary plus \$20 per month prorated among all dependent children.</li> </ul>
REFUNDS:		
• When a member ends employment with the state, member contributions can be refunded. Refund will include 6.0 percent interest compounded daily until June 30, 2011, and 4.0 percent thereafter.	• Same as General Employees	• Same as General Employees

CORRECTIONAL EMPLOYEES	JUDGES	LEGISLATORS	ELECTIVE STATE OFFICERS
SURVIVOR BENEFITS:			
• Generally, the spouse of a vested employee is eligible for a 100 percent survivor annuity.	<ul> <li>If a member dies while still an active employee, the spouse is eligible for the larger of:</li> <li>(a) 25 percent of average salary <u>OR</u></li> <li>(b) 60 percent of the normal retirement benefit, had the member retired at the date of death.</li> <li>If a vested judge is 60 or over, the surviving spouse may elect to receive a 100 percent Joint-and-Survivor benefit.</li> </ul>	<ul> <li>The spouse is eligible for 50 percent of the benefit if, upon death, the legislator was serving as a member, or was a former member with six years of service. The survivor benefit is computed as though the member were age 62 on date of death and is based on the member's allowable service or eight years, whichever is greater.</li> <li>First child's benefit is 25 percent of the retirement benefit (computed as for surviving spouse) with 12.5 percent of the retirement benefit for each additional child.</li> <li>The maximum benefit payable to children and the spouse is 100 percent of the retirement benefit benefit.</li> </ul>	• Same as Legislators
<b>REFUNDS</b> :			
• Same as General Employees	• Same as General Employees	• Same as General Employees	• Same as General Employees
			Continued on next page

MSRS 2015 Comprehensive Annual Financial Report - Introductory Section

### GENERAL EMPLOYEES

#### MILITARY AFFAIRS, TRANSPORTATION PILOTS, AND FIRE MARSHALS

#### DISABILITY ELIGIBILITY AND BENEFIT CALCULATION

#### **Disability Eligibility:**

• (a) At least three years of allowable service and meeting the definition of disability

#### <u>OR</u>

(b) At least five years of service if hired on or after June 30, 2010, and meeting the definition of disability.

• Totally and permanently disabled is defined as the inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that has existed or is expected to continue for a period of at least one year.

#### Calculation:

• Disability benefits are calculated following the same formula as a regular retirement benefit.

#### **Disability Eligibility:**

• At least three years of service and unable to perform duties

#### Calculation:

- Military Affairs: Benefit calculation follows the General Plan formula with no reduction
- **Pilots:** 75 percent of salary for a maximum of five years
- **Deputy Fire Marshals:** Minimum benefit is calculated as though the member had 20 years of service for a job-related disability, 15 years of service for a non job-related disability

### Disability Eligibility:

• Job-related: Unable to perform job duties as a direct result of a disability relating to an act of duty. There is no service time requirement.

STATE PATROL

- **Regular (non job-related):** At least one year of service and unable to perform duties
- Both Regular and Job Related: Member is reclassified from disabled to retired at age 55 (age 65 if disabled prior to July 1, 2015)

#### Calculation:

- Job Related: 60 percent of high-five average salary, plus 3 percent for each year beyond 20 years of allowable service
- **Regular:** Normal State Patrol benefit based on salary and years of service. If disability occurs before 15 years of service, the benefit is calculated with a service credit of 15 years.

### **CORRECTIONAL ELECTIVE STATE** JUDGES **LEGISLATORS EMPLOYEES OFFICERS** DISABILITY ELIGIBILITY AND BENEFIT CALCULATION **Disability Eligibility: Disability Eligibility:** • None • None • Job-related: The disability • Member is permanently must result from an incident unable to perform duties of while performing duties a judge. of the job which present inherent dangers to the Calculation: · Prior to commencement of employee. There is no service time requirement disability benefits, the member will receive a continuation of • Regular (non job-related): full salary for one year, but • For employees hired before not beyond age 70. July 1, 2009: one year of • If disability continues after covered correctional service one year, disability benefits · For employees hired after are equal to the normal June 30, 2009: employee retirement benefit or 25 must be vested percent of high-five average salary, whichever is larger. · Both Regular and Job There is no early-retirement Related: Member is reduction applied. reclassified from disabled to retired at age 55 (age 65 if disabled prior to July 1, 2009) Calculation: • Job Related: 50 percent of the average of the high-five average salary plus 2.4 percent (2.2 percent if hired after June 30, 2010) for each year beyond 20 years and ten months of allowable service • Regular: Normal Correctional benefit based on salary and years of service. If hired before July 1, 2009, the benefit is calculated with a minimum of 15 years service. If hired after June 30, 2009, there is

no minimum benefit.

# Summary of Plan Provisions Defined Contribution Retirement Funds

The following is a summary of the major plan provisions for MSRS' defined contribution retirement plans.

Plan provisions specific to MSRS' defined benefit plans begin on page 24 of this section. Plan descriptions are not all inclusive. Descriptions provide general information only.

UNCLASSIFIED EMPLOYEES	HEALTH CARE SAVINGS
STATUTORY OR LEGAL REFERENCES:	
Minn. Stat. §352D • Internal Revenue Code (IRC) Section 401(a) Plan • Internally administered by MSRS prior to July 1, 2009	<ul> <li>Minn. Stat. §352.98</li> <li>Plan document is available online at www.msrs.state.mn.us/about-hcsp</li> <li>Created in 2001 through state legislation</li> <li>The trust is exempt from federal income tax through</li> </ul>
	<ul><li>The trust is exempt from rederal income tax through Private Letter Ruling.</li><li>Internally administered by MSRS prior to July 1, 2009</li></ul>
COVERAGE:	
Specified employees in unclassified positions	<ul><li>Available to all public employees in the state of Minnesota</li><li>Negotiated by bargaining unit or personnel department</li></ul>
CONTRIBUTION RATES:	
Employee: 5.5 percent of salary Employer: 6.0 percent of salary	<ul> <li>Employee or negotiated employer funding criteria is bargained per labor contract</li> <li>May include severance pay</li> </ul>
BENEFITS:	
• Account balance (contributions and investment gains or losses) or annuity benefit withdrawal based on age and 6.0 percent interest assumption	<ul> <li>Account balance which must be used for qualifying health-related expenses</li> <li>Effective January 1, 2013, the annual maximum Health Care Savings Plan reimbursement limit increased from \$25,000 to \$27,000 for non-insurance premium, qualified health care expenses.</li> </ul>
REFUNDS:	
• Account value	<ul> <li>None</li> <li>After participant's death, legal dependents, or if none exist, beneficiaries, may use the remaining account balance for eligible healthcare reimbursements, as designated in the Internal Revenue Code.</li> <li>Non-dependent beneficiary reimbursements are taxable.</li> </ul>

### MN DEFERRED COMPENSATION

### HENNEPIN COUNTY SUPPLEMENTAL

### STATUTORY OR LEGAL REFERENCES:

Minn. Stat. §352.965 - 352.97

- IRC Section 457(b) Plan
- Plan document is available online at www.msrs.state.mn.us/about-mndcp

Minn. Stat. §383B.46 - 383B.52

• Non-qualified Plan

• Internally administered by MSRS from December 1, 2005 through July 1, 2009

### **COVERAGE:**

• Optional for all state employees and political subdivision employees

### · Optional for employees of Hennepin County, Minnesota, who began employment prior to April 14, 1982

### **CONTRIBUTION RATES:**

- Member selected tax-deferred amount, with a \$10 per pay period minimum
- After-tax Roth contribution option is available for eligible employees.
- Subject to annual calendar year 2015 IRS contribution limit of \$18,000 for members under 50 years old, \$24,000 for members over 50

### **BENEFITS:**

Account balance

• Employee: 1.0 percent of salary • Employer: 1.0 percent of salary

**REFUNDS:** 

• None

Account balance

• None

# Summary of Plan Provisions Defined Contribution Retirement Funds

UNCLASSIFIED EMPLOYEES	HEALTH CARE SAVINGS
INVESTMENT OPTIONS:	
<ul> <li>Supplemental Investment Fund (SIF) Investment Options:</li> <li>Money Market Account</li> <li>Fixed Interest Account</li> <li>Bond Market Account</li> <li>Income Share Account</li> <li>Common Stock Index Account</li> <li>Growth Share Account</li> <li>International Account</li> <li>Effective July 1, 2015, the SBI renamed investment options to more descriptive titles.</li> </ul>	<ul> <li>Supplemental Investment Fund (SIF) Investment Options:</li> <li>Money Market Account</li> <li>Fixed Interest Account</li> <li>Bond Market Account</li> <li>Income Share Account</li> <li>Common Stock Index Account</li> <li>Growth Share Account</li> <li>International Account</li> <li>Effective July 1, 2015, the SBI renamed investment options to more descriptive titles.</li> </ul>
ADMINISTRATIVE FEES:	
<ul> <li>\$2 per month for an account balance \$10,000 or less</li> <li>\$4 per month for an account balance that is \$10,000.01 to \$30,000</li> <li>\$6 per month for an account balance that is \$30,000.01 to \$90,000</li> <li>\$8 per month for an account balance exceeding \$90,000</li> <li>Plan fees only apply to contributions made after July 1, 1992. Prior to July 1, 1992, participants were charged a front-end fee.</li> </ul>	<ul> <li>0.65 percent of each participant's account balance, prorated and deducted from participant accounts on a monthly basis</li> <li>Maximum annual fee: \$140</li> </ul>
WHEN USED / WITHDRAWAL EVENTS:	
<ul> <li>Termination of employment (lump-sum distribution)</li> <li>Age 55 retirement with any length of service (monthly benefits)</li> </ul>	<ul> <li>Termination of employment</li> <li>After retirement</li> <li>Upon receiving a disability retirement</li> <li>Employees rehired in a position with their previous public employer and who are not eligible for employer-sponsored medical insurance can request reimbursements with funds credited to their HCSP account prior to January 1, 2014.</li> </ul>
WITHDRAWAL OPTIONS:	
<ul> <li>Single-Life Annuity</li> <li>50, 75, or 100 percent Joint-and-Survivor with a bounce-back feature</li> <li>15-Year Certain and Life Thereafter</li> </ul>	• Reimbursements for qualified health care expenses

### MN DEFERRED COMPENSATION

### HENNEPIN COUNTY SUPPLEMENTAL

### **INVESTMENT OPTIONS:**

- Various retail mutual funds contracted by the Minnesota State Board of Investment (SBI)
- Self-directed brokerage account through TD Ameritrade
- The SBI Supplemental Investment Fund Fixed Interest Account and Money Market Account
- Target Date Retirement Funds managed by State Street Global Advisors
- Effective July 1, 2015, the SBI renamed investment options to more descriptive titles.

### **ADMINISTRATIVE FEES:**

- 0.05 percent of participant's account balance, prorated and deducted from participant accounts on a monthly basis
- Maximum annual fee: \$50 on the first \$100,000 in the participant's account
- \$30 annual fee for members opting to use the Self-directed brokerage account option through TD Ameritrade
- Program fee charged on the managed account balance for participants who opt to use a professional account manager through the record keeper

### Supplemental Investment Fund (SIF) Investment Options:

- Money Market Account
- Bond Market Account
- Income Share Account
- Common Stock Index Account
- Growth Share Account
- International Account
- Effective July 1, 2015, the SBI renamed investment options to more descriptive titles.
- 0.05 percent of each participant's account balance, prorated and deducted from participant accounts on a monthly basis
- Effective July 1, 2015, administrative fees increase to 0.06 percent of each participant's account balance, prorated and deducted from the participant accounts on a monthly basis.

### WHEN USED / WITHDRAWAL EVENTS:

- Termination of service or death
- Unforeseeable emergency

- · Termination of service or death
- Retirement
- Unforeseeable emergency

### WITHDRAWAL OPTIONS:

- · Lump-sum or rollover to qualified financial institution
- · Ongoing withdrawals
- Various annuities, including a fixed annuity provided through an insurance company
- · Combinations of the above options
- Required minimum distributions begin in the year participant reaches age 70¹/₂.

- Lump-sum
- · Monthly withdrawals for five years
- Annual withdrawals for five years

# Summary of Plan Provisions Defined Contribution Retirement Funds

### UNCLASSIFIED EMPLOYEES

### HEALTH CARE SAVINGS

# ANNUITY AND DISABILITY OPTIONS FOR EMPLOYEES ELECTING COVERAGE IN GENERAL EMPLOYEES RETIREMENT PLAN:

• Not applicable

- Employees appointed prior to July 1, 2010, may elect to transfer their Unclassified Plan service to the General Plan if they have ten or more years of service, or employees may select General Plan coverage in the first year of employment in the Unclassified Plan.
- Employees appointed after June 30, 2010, may elect to be covered by the General Plan within seven years of their appointment.

### GENERAL INFORMATION FOR ALL DEFINED CONTRIBUTION PLANS:

- Effective July 1, 2009, ING provides recordkeeping services, and MSRS counsels plan participants and processes all distributions and other requests.
- Effective May 2013, ING U.S. was renamed Voya Financial[™] after an initial public offering (listed in the New York Stock Exchange under the symbol VOYA) to become an independent, stand-alone U.S.-based company. In 2014 the company started an operational rebranding effort.
- MSRS representatives are also representatives of Voya Retirement Advisors, LLC (member SIPC). The Minnesota State Retirement System and the Minnesota Deferred Compensation Plan are not members of the Voya[™] family of companies.
- Effective July 1, 2015 Empower Retirement[™] began providing recordkeeping services, and MSRS counsels plan participants and processes all distributions and other requests.

Empower Retirement™ refers to services offered in the retirement markets by Great-West Life & Annuity Insurance Company.

### MN DEFERRED COMPENSATION

### HENNEPIN COUNTY SUPPLEMENTAL

# ANNUITY AND DISABILITY OPTIONS FOR EMPLOYEES ELECTING COVERAGE IN GENERAL EMPLOYEES RETIREMENT PLAN:

Not applicable

• Not applicable

MSRS 2015 Comprehensive Annual Financial Report - Introductory Section

This page is intentionally left blank.

# **Financial Section**

# MSRS 2015 Comprehensive Annual Financial Report

Safeguarding Your Financial Future

ecurit

# **Independent Auditor's Report**



### **Independent Auditor's Report**

Members of the Board of Directors Minnesota State Retirement System

Mr. Dave Bergstrom, Executive Director Minnesota State Retirement System

### **Report on the Financial Statements**

We have audited the accompanying basic financial statements of the Minnesota State Retirement System (MSRS), which comprise of the statement of fiduciary net position as of June 30, 2015, and the related statement of changes in fiduciary net position, and notes to the financial statements, as listed in the Financial Section of 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 accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to MSRS'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. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant

Room 140 Centennial Building, 658 Cedar Street, St. Paul, Minnesota 55155-1603 • Phone: 651-296-4708 • Fax: 651-296-4712 E-mail: legislative.auditor@state.mn.us • Website: www.auditor.leg.state.mn.us • Minnesota Relay: 1-800-627-3529 or 7-1-1 Members of the Board of Directors Mr. Dave Bergstrom, Executive Director Page 2

accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Minnesota State Retirement System as of June 30, 2015, and the changes in financial position for the period then ended in conformity with accounting principles generally accepted in the United States of America.

### **Emphasis of Matter – Assumptions Used**

In its fiscal year 2015 financial report, MSRS determined its pension liability using assumptions that conform to actuarial standards of practice issued by the Actuarial Standards Board, as required by the Governmental Accounting Standards Board (GASB). See Note 4.F. in the Notes to the Financial Statements for further information about MSRS's net pension liability.

In 2015, MSRS's actuary reported the results of its most recent experience study and recommended changes to certain actuarial assumptions for the State Employees Retirement Fund. The experience study compared the actual experience of plan participants to assumptions used to estimate the cost of future benefit payments. The experience study examined actual experience for the six-year period ending June 30, 2014. The changes to actuarial assumptions recommended by the actuary as a result of this experience study would result in a larger pension liability.

For its estimate of the pension liability at June 30, 2015, MSRS did not revise the actuarial assumptions to implement its actuary's recommended changes based on the experience study. Instead, MSRS continued to use the actuarial assumptions based on an experience study of the four-year period ending June 30, 2008. MSRS plans to implement the recommended changes to the assumptions for its fiscal year 2016 estimate of pension liability. We estimate that if MSRS had implemented the recommended changes to the actuarial assumptions, the State Employees Retirement Fund's pension liability could be about \$400 million higher than reported. However, it is important to recognize that the actuarial valuation process, while very sophisticated in its calculation methodology, is still an estimate based on assumptions about events, which occur many years into the future. Other assumption sets may also be reasonable. The pension liability based on those assumptions would be different. No one set of assumptions is uniquely correct.

Because the actuarial assumptions used to determine its 2015 pension liability were reasonable and compliant with Actuarial Standards of Practice and GASB standards, MSRS's

# **Independent Auditor's Report**

Members of the Board of Directors Mr. Dave Bergstrom, Executive Director Page 3

decision to delay the implementation of recommended changes to its actuarial assumptions study had no effect on our audit opinion.

*Minnesota Statutes* 2015, 356.20, require MSRS to include in its financial report information using funding-focused statutory assumptions and methodologies. For its fiscal year 2015 financial report, the funding-focused information differs from the GASB-based information primarily for the following reasons:

- (1) The discount rate required by statute for funding purposes was higher than the discount rate used for financial reporting purposes. The discount rate is the rate used to bring the projected benefit payments to the present value of those benefits (the pension liability). A higher discount rate results in a smaller pension liability.
- (2) For funding purposes, statutes require investment gains and losses be recognized over a five-year period to "smooth" the volatility that can occur from year to year. For GASB financial reporting purposes, assets are valued at market value as of the end of the fiscal year.

Including funding-focused information was necessary for MSRS to comply with state law and had no effect on our audit opinion.

### **Required Supplementary Information**

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis and the other required supplementary information, as listed in the Financial Section of the Table of Contents, 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 Management's Discussion and Analysis and the other required supplementary information in accordance with auditing standards generally accepted in the United States of America, 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.

Members of the Board of Directors Mr. Dave Bergstrom, Executive Director Page 4

### Other Information Included with the Financial Statements

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise MSRS's basic financial statements. The supporting schedules in the Financial Section and the Introductory, Investment, Actuarial, and Statistical Sections, as listed in the Table of Contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supporting schedules, as listed in the Financial Section of the Table of Content, are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. The supporting schedules have 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 auditing standards generally accepted in the United States of America. In our opinion, the supporting schedules are 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.

### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we will issue our report on our consideration of the Minnesota State Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

Jamer K. Aduly

James R. Nobles Legislative Auditor

December 21, 2015 Saint Paul, Minnesota

Cicili M. Lunkul

Cecile M. Ferkul, CPA, CISA Deputy Legislative Auditor

# Management's Discussion and Analysis

We, the management of the Minnesota State Retirement System (MSRS), present this discussion and analysis of MSRS' financial activities for the fiscal year ended June 30, 2015. We encourage you to read the information contained in this narrative in conjunction with the Letter of Transmittal that begins on page 12, the financial statements with explanatory notes, and required supplementary information contained in this section of the Comprehensive Annual Financial Report (CAFR).

### **Financial Highlights**

• Overall, MSRS' financial condition improved during fiscal year 2015. MSRS' fiduciary net position for all pension trust funds increased \$416 million (2.08 percent) from \$20.05 billion as of June 30, 2014, to almost \$20.47 billion as of June 30, 2015.

• Total additions to all MSRS pension trust funds decreased \$2.04 billion (54.92 percent) during fiscal year 2015, from \$3.71 billion for fiscal year 2014 to \$1.67 billion for fiscal year 2015. This decrease is primarily the result of a slump in financial market performance and weak international equity returns for fiscal year 2015.

• For MSRS' defined benefit retirement funds, the investment rate of return (net of fees) for the state of Minnesota's Combined Funds, the investment pool of which MSRS owns a share, decreased substantially, from 18.6 percent for fiscal year 2014 to 4.4 percent for fiscal year 2015. This 2015 investment performance was the lowest since fiscal year 2012, when the Combined Funds earned 2.4 percent. Additional information about all MSRS retirement fund investment activities can be found in the *Investment Section* of this report.

• For MSRS' defined contribution retirement funds, participants' fiscal year 2015 investment performance varied depending upon the types of assets held in their securities portfolio. The average fiscal year 2015 rates of return ranged from a low of a negative 4.5 percent for the Vanguard Total International Stock Index Fund to a high of 8.7 percent for the Vanguard Mid-Cap Index Fund.

• Total deductions from all MSRS pension trust funds increased \$113.3 million (9.91 percent) from \$1.14 billion for fiscal year 2014 to \$1.26 billion for fiscal year 2015. Much of this change was due to defined benefit annuity payments which increased \$48.84 million (6.44 percent) due to annual post-retirement benefit increases of up to 2 percent and the growth in the number of retirees. Plan member refunds also increased \$45.40 million (18.80 percent).

• Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 actuarial valuation results indicated that on June 30, 2015, MSRS' governmental employers participating in MSRS' largest cost-sharing defined benefit retirement plans that compose the State Employees Retirement Fund, incurred a Net Pension Liability of \$1.54 billion. As of this measurement date, Fiduciary Net Position for this fund as a percentage of the Total Pension Liability was 88.32 percent, representing an increase of 0.68 percent from a ratio of 87.64 percent as of the June 30, 2014, measurement date.

· "Funding" actuarial valuation results revealed the funding progress for MSRS' four largest defined benefit retirement funds improved during fiscal year 2015, primarily due to recognition of deferred asset gains from previous years. On an actuarial value of assets basis, MSRS' largest defined benefit retirement fund, the State Employees Retirement Fund, was 85.72 percent funded as of the July 1, 2015, actuarial valuation in comparison to 82.97 percent funded as of the July 1, 2014, actuarial valuation. On a market value of assets basis, this fund was 88.89 percent funded based on the 2015 actuarial valuation results; funding status declined in comparison to the 92.39 percent funded ratio reported as of the July 1, 2014, actuarial valuation. This decline was due primarily to lower investment gains for the 2015 fiscal year and an increase in pension liabilities resulting from retiree growth and changes in economic actuarial assumptions.

### **Overview of the Financial Statements**

MSRS administers five defined benefit retirement funds and four defined contribution funds. The defined benefit funds include the State Employees, State Patrol, Correctional Employees, Judges, and Legislators Retirement Funds. The defined contribution funds include the Unclassified Employees Retirement Fund, the Health Care Savings Fund, the Minnesota Deferred Compensation Fund, and the Hennepin County Supplemental Retirement Fund. All of these pension trust funds are fiduciary funds for governmental accounting and financial reporting purposes.

This CAFR includes two basic financial statements for MSRS' pension trust funds:

- The Statement of Fiduciary Net Position, found on pages 60-61, and
- The Statement of Changes in Fiduciary Net Position, found on pages 62-63.

Consistent with *Minnesota Statutes*, Chapter 356.20, the purpose of these financial statements, along with the accompanying *Notes to the Financial Statements* (found on pages 64-94) and *Required Supplementary Information* (found on pages 95-105), is to present the financial position and results of operations of MSRS' retirement funds to our membership, participating employers, and other financial statements users. This CAFR also provides readers with financial information in a format that is reasonably comparable to that of other public employee pension trust funds. These financial statements and explanatory notes are prepared in conformance with generally accepted governmental accounting principles. As indicated in Note 1.A. in the *Notes to the Financial Statements*, MSRS' financial statements are reported using the accrual basis of accounting.

The *Statement of Fiduciary Net Position* provides a snapshot of the financial resources and obligations for all of MSRS' pension trust funds on June 30, the last day of each fiscal year. The assets available and the liabilities owed are reported at fair value as of that date. The difference between the sum of total assets and deferred outflows of resources and the sum of total liabilities and deferred inflows of resources is net position restricted for pensions; this amount is available for payment of future pension benefits or other obligations. Comparisons of total assets and deferred outflows, total liabilities and deferred inflows, and net position restricted for pensions as of June 30, 2015 and 2014 are depicted in the table below.

### SUMMARY STATEMENT OF FIDUCIARY NET POSITION – ALL MSRS PENSION TRUST FUNDS

As of June 30, 2015 and 2014

	FY 2015	FY 2014	Change	% Change
Total Assets and				
Deferred Outflows	\$21,956,922	\$21,590,766*	\$366,156	1.70%
Total Liabilities and				
Deferred Inflows	1,487,161	1,537,329	(50,168)	(3.26)
Net Position Restricted				
for Pensions	\$20,469,761	\$20,053,437*	\$416,324	2.08%

* Amounts reported reflect a change in accounting principle that took effect July 1, 2013.

Total assets as of June 30, 2015, equal to \$21.96 billion, increased \$366 million (1.70 percent) from the prior year. This growth was primarily the result of a moderate investment return of 4.40 percent for fiscal year 2015, as well as increased member and employer contributions to many of the plans effective July 1, 2014. The capital asset amounts reported for computer software increased primarily due to capitalization of new computer software developed internally for the MSRS participant account system.

Total liabilities of \$1.49 billion as of June 30, 2015, decreased \$50 million (3.26 percent) from the prior year. This is due to decreases in accounts payable, bonds payable, and smaller amounts of security lending collateral.

This fiscal year, the increase in the net position restricted for pensions was \$416 million (2.08 percent). This increase was due to investment income resulting from the 4.4 percent investment return for the fiscal year and increased member and employer contributions due to a change in plan provisions for the largest defined benefit plans effective July 1, 2014. The investment return declined significantly in comparison to the fiscal year 2014 return of 18.6 percent, and was far less than the expected rate of return of 8.0 percent. Overall, the net investment gains and increased contributions for the defined benefit retirement funds were sufficient to offset the increased annuity benefits paid to retirees, their survivors, and disabled members during the fiscal year.

MSRS had no deferred outflows or inflows of resources as of June 30, 2015.

The Statement of Changes in Fiduciary Net Position summarizes the financial transactions that occurred during the fiscal year. Additions include contributions, net investment income, and other revenue sources. Deductions include annuity benefit payments from our defined benefit retirement funds, ongoing withdrawals from our defined contribution retirement funds, refunds, and other administrative expenses.

Total additions by major source and total deductions by type for the fiscal years ended June 30, 2015 and 2014 are depicted on the following page.

# Management's Discussion and Analysis

SUMMARY STATEMENT OF CHANGES IN FIDUCIARY NET POSITION – ALL MSRS PENSION TRUST FUNDS For the fiscal years ended June 30, 2015 and 2014 (Dollars in thousands)

	FY 2015	FY 2014	Change	% Change
ADDITIONS (BY MAJOR SOURCE)				
Plan Member Contributions	\$566,625	\$518,973	\$47,652	9.18%
Employer Contributions	205,839	182,194	23,645	12.98
Investment Income (Net)	856,069	2,975,030	(2,118,961)	(71.22)
Other (includes transfers from other plans)	44,332	34,584	9,748	28.19
Total Additions	\$1,672,865	\$3,710,781	\$2,037,916	(54.92)%
DEDUCTIONS (BY TYPE)				
Benefits, Withdrawals and Reimbursements	\$913,552	\$857,388	\$56,164	6.55%
Refunds	286,858	241,458	45,400	18.80
Recordkeeper and Custodian Expenses	2,956	2,885	71	2.46
Administrative Expenses	15,367	14,400	967	6.72
Other (includes transfers to other plans)	37,808	27,141	10,667	39.30
Total Deductions	\$1,256,541	\$1,143,272	\$113,269	9.91%
Change in Accounting Principle	\$0	\$(61)	\$61	100.00%
Net Increase (Decrease) in Net				
Position Restricted for Pensions	\$416,324	\$2,567,448	\$(2,151,124)	(83.78)%

Total additions decreased over \$2 billion (54.92 percent) to \$1.67 billion, primarily due to the noteworthy decrease in net investment income during fiscal year 2015. The fiscal year 2015 rate of return on investments was 4.4 percent, a significant decline in comparison to the fiscal year 2014 return of 18.6 percent, and far less than the expected rate of return of 8.0 percent.

For MSRS' defined benefit retirement funds, the state of Minnesota's Combined Funds, the investment pool of which MSRS owns a share, reported a 4.4 percent investment rate of return (net of fees) for fiscal year 2015. Domestic stocks and international equities experienced mixed investment growth of 7.7 percent and a negative 3.8 percent, respectively, during fiscal year 2015. Alternative investments (e.g., real estate investments, private equity investments, resource investments and yield-oriented investments) produced a 7.6 percent rate of return, and the bond pool earned 2.1 percent for the same period.

For MSRS' defined contribution retirement funds, the average fiscal year 2015 rates of return for investment options ranged from a low of a negative 4.5 percent for the Vanguard Total International Stock Index Fund to a high of 8.7 percent for the Vanguard Mid-Cap Index Fund.

Total plan member and employer contributions increased by over \$71 million (10.17 percent) for fiscal year 2015. This increase is mostly due to increased member and employer contributions in the three largest defined benefit retirement funds effective July 1, 2014.

Total deductions increased \$113 million (9.91 percent) from \$1.14 billion for fiscal year 2014 to \$1.26 billion for fiscal year 2015. This change was largely due to an increase in annuity benefits, health care reimbursements, and refunds to members. Annual post-retirement benefit increase adjustments of 2.0 percent became effective January 1, 2015, for all defined benefit retirement funds except the State Patrol Retirement Fund, which provided a 1.0 percent annual post-retirement benefit adjustment to eligible members, and the Judges Retirement Plan, which provided a 1.75 percent annual post-retirement benefit adjustment. Annuity benefits also increased due to growth in the number of benefit recipients, from about 39,000 as of June 30, 2014, to nearly 41,000 as of June 30, 2015. Health Care Savings Plan reimbursements rose primarily due to the increase in the number

of member retirements and service terminations. Refunds increased due to employee turnover and members rolling funds over to other qualified retirement plans.

Total assets as of July 1, 2013, the beginning date of fiscal year 2014, were restated by \$61 thousand due to a change in accounting principle resulting from the implementation of Governmental Accounting Standards (GASB) Statement No. 65, *Items Previously Reported as Liabilities.* 

The Notes to the Financial Statements are an integral part of the financial statements. They provide additional information relevant to obtain a full understanding of the financial statements. The notes are divided into six sections. Each section is described below.

1. Summary of Significant Accounting Policies – This section provides a summary of significant accounting policies, including the basis of financial statement presentation and accounting method applied in recording financial transactions, investment policies, and policies MSRS abides by in the valuation of assets, liabilities, revenue and expenses reported on the financial statements, where generally accepted accounting principles permit more than one approach.

2. Accounting Changes – This section identifies and describes the new governmental accounting and financial reporting principles, promulgated by GASB, that MSRS implemented during fiscal year 2015.

3. *Description of System and Plans* – This section describes MSRS as an organization, and key membership, contribution, and benefit or distribution provisions for each of its retirement funds.

4. *Detailed Notes on All Activities and Funds* – This section elaborates on various investment-related risks, and provides computations for certain asset, liability, and transfer amounts reported on the financial statements.

5. *Significant Effects of Subsequent Events* – This section identifies and explains any significant event or transactions that occurred subsequent to fiscal year end, but prior to the issuance of this comprehensive annual financial report that merit disclosure because they are essential to a user's understanding of the financial statements.

6. *Required Supplementary Information (RSI)* –This section of the notes identifies required supplementary information that follows the basic financial statements and the notes to the financial statements.

*Required Supplementary Information* consists of three schedules, listed below, and related notes:

- Schedule of Changes in the Employers' Net Pension Liability and Related Ratios
- Schedule of Employers' Contributions
- Schedule of Investment Returns

These schedules are intended to show information for the most recent 10 years. However, for all but the *Schedule of Employers' Contributions*, only the information for the past two years is presented. Additional yearly data will be displayed as it becomes available. The presentation of multi-year data is designed to provide some economic context regarding amounts reported in the financial statements, and to provide historical context for each pension plan's fiduciary net position related to the total pension liability. Significant assumptions used in the calculation of actuarially determined contributions and factors significantly affecting trends in the amounts reported are disclosed in the notes presented with each RSI schedule.

Supplementary schedules include the Schedule of Administrative Expenses, the Summary Schedule of Commissions and Payments to Consultants, and the Schedule of Investment Expenses. These schedules summarize the operating expenses MSRS incurred during fiscal year 2015 to administer its defined benefit and defined contribution retirement funds.

With the GASB Statements No. 67 and No. 68 implementation in fiscal year 2014, we added two new supplemental employer schedules to the *Financial Section* of this report: a *Schedule of Employer Allocations* for our cost-sharing pension plans (the State Employees and Correctional Employees Retirement Funds), and the *Schedule of Pension Amounts by Employer* for each defined benefit retirement fund. These schedules contain essential financial data, including net pension liability, deferred outflows and deferred inflows of resources, and pension income or pension expense for governmental employers participating in our defined benefit retirement plans to report in their own financial statements.

# Management's Discussion and Analysis

### Financial Analysis of MSRS' Individual Funds

Each of MSRS' defined benefit and defined contribution retirement funds has some characteristics that are different from the others, such as membership served. The MSRS retirement funds also have some characteristics in common, such as the shared investment pools. The following paragraphs highlight events or conditions that had a significant effect on each fund's financial position or results of operations during fiscal year 2015.

### Analysis of the Defined Benefit Funds

The following two tables compare various performance measures to the previous fiscal year for each of the following defined benefit funds: the State Employees Retirement Fund (SERF), the State Patrol Retirement Fund (SPRF), the Correctional Employees Retirement Fund (CORR) and the Judges Retirement Fund (JRF). The Legislators Retirement Fund is excluded from this analysis because the two plans that compose it, the Legislators and the Elective State Officers Retirement Plans, have been closed to new membership since July 1, 1997, and they are funded primarily by annual state of Minnesota General Fund appropriations.

### SUMMARY STATEMENT OF FIDUCIARY NET POSITION - MSRS PENSION TRUST FUNDS

**DEFINED BENEFIT PLANS** 

For the Fiscal Years Ended June 30, 2015 and 2014 (Dollars in thousands)

	SERF	SPRF	CORR	JRF
Total Assets, as of 06/30/2015	\$12,835,604	\$732,651	\$1,002,818	\$192,455
Total Assets, as of 06/30/2014	12,756,375*	739,975	973,375	194,636
Change in Total Assets	\$79,229	\$(7,324)	\$29,443	\$(2,181)
Percentage Change	0.62%	(0.99)%	3.02%	(1.12)%
Total Liabilities, as of 06/30/2015	\$1,197,285	\$68,121	\$93,816	\$17,875
Total Liabilities, as of 06/30/2014	1,257,771	72,635	96,319	19,080
Change in Total Liabilities	\$(60,486)	\$(4,514)	\$(2,503)	\$(1,205)
Percentage Change	(4.81)%	(6.21)%	(2.60)%	(6.32)%
Total Net Position Restricted for				
Pensions, as of 06/30/2015	\$11,638,319	<b>\$664,53</b> 0	\$909,002	\$174,580
Total Net Position Restricted for				
Pensions, as of 06/30/2014	11,498,604*	667,340	877,056	175,556
Change in Net Position Restricted				
for Pensions	\$139,715*	\$(2,810)	\$31,946	\$(976)
Percentage Change	1.22%	(0.42)%	3.64%	(0.56)%

* Amount includes a change in account principle of \$(61).

### Summary Statement of Changes in Fiduciary Net Position – MSRS Pension Trust Funds Defined Benefit Plans

For the Fiscal Years Ended June 30, 2015 and 2014 (Dollars in thousands)

	SERF	SPRF	CORR	JRF
Total Additions, year ended 06/30/2015	\$827,212	<b>\$52,84</b> 0	\$89,165	\$20,977
Total Additions, year ended 06/30/2014	2,109,705	128,011	182,846	41,015
Change in Total Additions	\$(1,282,493)	\$(75,171)	\$(93,681)	\$(20,038)
Percentage Change	(60.79)%	(58.72)%	(51.23)%	(48.86)%
Total Deductions, year ended 06/30/2015	\$687,497	\$55,650	\$57,219	\$21,953
Total Deductions, year ended 06/30/2014	644,539	53,872	52,947	20,857
Change in Total Deductions	\$42,958	\$1,778	\$4,272	\$1,096
Percentage Change	6.66%	3.30%	8.07%	5.25%
Change in Accounting Principle, 06/30/15	\$0	\$0	\$0	\$0
Change in Accounting Principle, 06/30/14	(61)	0	0	0
Change	\$61	\$0	\$0	\$0
Percentage Change	100.00%	N/A	N/A	N/A
Net Increase (Decrease) for the				
Fiscal year ended 06/30/2015	\$139,715	\$(2,810)	\$31,946	\$(976)
Net Increase (Decrease) for the				
Fiscal year ended 06/30/2014	1,465,105	74,139	129,899	20,158
Change in Net Increase (Decrease) of				
Net Position Restricted for Pensions	\$(1,325,390)	\$(76,949)	\$(97,953)	\$(21,134)
Percentage Change	(90.46)%	(103.79)%	(75.41)%	(104.84)%

### • State Employees Retirement Fund

Fiduciary net position for the State Employees Retirement Fund, MSRS' largest defined benefit retirement fund, totaling \$11.64 billion, increased \$139.7 million (1.22 percent), despite disappointing investment performance during fiscal year 2015 in comparison to the previous two fiscal years. Member and employer contributions, together with the moderate investment income, were adequate to offset the benefits paid to retirees, their survivors and disabled members.

Total additions decreased \$1.3 billion (60.79 percent) to \$827 million. The decrease from the previous year correlates to the substantial decline in investment income, from a return in fiscal year 2014 of 18.6 percent to a return in fiscal year 2015 of 4.4 percent. Net investment income of \$501.2 million accounted for a large portion of total additions. Total plan member and employer contributions increased \$36.6 million (14.11 percent) to \$295.6 million due to payroll growth and to an increase in member and employer contribution rates, effective July 1, 2014.

Total deductions increased nearly \$43 million (6.66 percent) to \$687.5 million, largely due to annuity benefit distributions. Annuity benefits increased \$41.88 million (6.71 percent) to \$665.8 million due to growth in the number of retirees, survivors and disabled members (these counts increased 5.03 percent to 36,476 members) and payment of a 2.0 percent post-retirement benefit increase to retirees and other benefit recipients in January 2015. Refunds increased \$40 thousand (0.33 percent) to \$12.03 million during this fiscal year.

# Management's Discussion and Analysis

Unique to this fund's financial statements is the restatement of total assets in fiscal year 2014 due to a change in accounting principle. The implementation of GASB Statement No. 65, *Items Previously Reported as Liabilities*, required the write-off in fiscal year 2014 of a previously deferred bond issuance charge of \$66 thousand, net of \$5 thousand in accumulated bond amortization. There was no change in accounting principle in fiscal year 2015.

### • State Patrol Retirement Fund

Fiduciary net position for the State Patrol Retirement Fund decreased \$2.8 million (0.42 percent) to \$664.53 million due to the lower than anticipated investment performance during fiscal year 2015.

Total additions decreased \$75.17 million (58.72 percent) to \$52.84 million. The decrease from the previous year reflects the substantial decline in investment income, from a return in fiscal year 2014 of 18.6 percent to a return in fiscal year 2015 of 4.4 percent. Net investment income of \$28.9 million accounted for over half of total additions. Total plan member and employer contributions increased \$3.12 million (15.70 percent) to \$22.94 million, due to payroll and active member growth, and to an increase in member and employer contribution supplemental state aid that will continue to be paid annually until the fund and the Public Employees Retirement Association's Police and Fire Fund both reach a 90 percent funded ratio, determined on a market value of assets basis.

Total deductions increased \$1.78 million (3.30 percent) to \$55.65 million, due to annuity benefit distributions. Annuity benefits increased \$1.77 million (3.29 percent) to \$55.47 million due to growth in the number of retirees, survivors and disabled members (4.3 percent increase to 1,027 benefit recipients as of June 30, 2015) and payment of a 1.0 percent post-retirement benefit increase to retirees and other benefit recipients in January 2015. Refunds decreased \$10 thousand (40.00 percent) to \$15 thousand during the 2015 fiscal year.

### Correctional Employees Retirement Fund

Fiduciary net position for the Correctional Employees Retirement Fund increased \$31.9 million (3.64 percent) to \$909 million. Like the State Employees Retirement Fund, member and employer contributions, together with the moderate investment income, were adequate to offset the benefits paid to retirees, their beneficiaries and disabled members. Total additions decreased \$93.68 million (51.23 percent) to \$89.17 million. The decrease from the previous year reflects the substantial decline in investment income, from a return in fiscal year 2014 of 18.6 percent to a return in fiscal year 2015 of 4.4 percent. Net investment income of \$38.6 million accounted for approximately 43.32 percent of total additions. Total plan member and employer contributions increased \$5.22 million (11.51 percent) to \$50.54 million, due to payroll growth and to an increase in member and employer contribution rates, effective July 1, 2014.

Total deductions increased \$4.27 million (8.07 percent) to \$57.22 million, largely due to annuity benefit distributions and refunds. Annuity benefits increased \$4.07 million (8.00 percent) to \$54.91 million due to growth in the number of benefit recipients (retiree, survivor and disabled member counts in fiscal year 2015 increased 10.01 percent to 2,769) and payment of a 2.0 percent post-retirement benefit increase to retirees and other benefit recipients in January 2015. Refunds increased \$143 thousand (9.88 percent) to \$1.59 million during the 2015 fiscal year.

### • Judges Retirement Fund

Fiduciary net position for the Judges Retirement Fund decreased \$976 thousand (0.56 percent) to \$174.58 million due to the lower than anticipated investment performance during fiscal year 2015.

Total additions decreased \$20.04 million (48.86 percent) to \$20.98 million. Net investment income of \$7.57 million was a fraction of the investment income reported in fiscal year 2014, decreasing \$20.4 million (72.97 percent) in fiscal year 2015. Contributions increased slightly by \$401 thousand (3.08 percent) to \$13.41 million for fiscal year 2015 due to payroll growth. Unlike other plans, no new contribution rate increase took place in fiscal year 2015 for this fund.

Total deductions increased \$1.10 million to \$21.95 million during fiscal year 2015 due to an increase annuity benefits paid. Annuity benefits increased \$1.09 million (5.24 percent) to \$21.89 million for fiscal year 2015. The change results from growth in the number of retired judges, their survivors and disabled individuals (benefit recipient counts increased 3.28 percent for fiscal year 2015 to 346) and payment of a 1.75 percent post-retirement benefit increase to retirees and other benefit recipients in January 2015.

### • Legislators Retirement Fund

Fiduciary net position for the Legislators Retirement Fund decreased \$4.83 million (58.46 percent) to \$3.43 million as of June 30, 2015. Total assets decreased \$5.09 million (52.68 percent) to \$4.57 million. Since the Legislator's Fund consists of two retirement plans closed to new membership, the substantial asset reduction was expected and necessary to finance the annuity benefits of Legislators Retirement Plan members who retired prior to July 1, 2003. When assets are fully depleted, expected in fiscal year 2016, these benefits will be financed entirely with State General Fund appropriations.

Total additions of \$3.65 million for fiscal year 2015 are down \$1.64 million (30.96 percent) from fiscal year 2014. Total additions consisted 88.11 percent of state General Fund appropriations to finance annuity benefits, 7.70 percent of net investment income, and 4.19 percent of contributions from active members of the Legislators Retirement Plan.

Total deductions decreased \$44 thousand (0.52 percent) to \$8.48 million during fiscal year 2015. This is primarily because there were no refunds in fiscal year 2015, while \$79 thousand in refunds were reported in fiscal year 2014. Annuity benefits increased \$34 thousand (0.40 percent) due to payment of a 2.0 percent post-retirement benefit increase in January 2015.

### Analysis of the Defined Contribution Funds

MSRS administers four defined contribution retirement funds: the Unclassified Employees Retirement Fund, the Health Care Savings Fund, the Minnesota Deferred Compensation Fund, and the Supplemental Retirement Fund for Hennepin County. Each of these funds was affected by the same investment market conditions that impacted the MSRS defined benefit retirement funds. However, because individual members select their own investment options, comparisons of net participants' investment income between fiscal years 2015 and 2014 for each defined contribution fund are not meaningful.

For each of MSRS' defined contribution funds except the Supplemental Retirement Fund for Hennepin County, the amount of securities lending collateral recognized as an asset and a liability on the *Statement of Fiduciary Net Position* as of June 30, 2015, increased significantly in comparison to the amounts reported on June 30, 2014. These increases are attributable to the growth in lendable assets during the fiscal year. Beginning in fiscal year 2015, the SBI switched from an internally managed bond pool to an externally managed bond pool, producing more assets available for security lending purposes. Changes in asset managers are not considered a change in the state's investment policy. Assets in the bond pool were loaned out at a higher percent than assets in the cash or equity pools. Consequently, the increase in assets loaned for these funds generated increases in the net income from security lending activities during fiscal year 2015 in comparison to the previous fiscal year.

Certain non-investment related financial activities of MSRS' defined contribution funds merit mention.

### • Unclassified Employees Retirement Fund

Fiduciary net position for the Unclassified Employees Retirement Fund decreased \$10.67 million (3.27 percent) to \$315.07 million as of June 30, 2015. The decrease was due to transfers out of the plan to the State Employees Retirement Fund, which outpaced the moderate investment growth.

Total additions decreased \$32.76 million (53.59 percent) as a result of the lower investment returns, from \$61.13 million in additions for fiscal year 2014 to \$28.37 million for fiscal year 2015. Contributions increased (7.8 percent) due to payroll growth during the fiscal year. The number of active participants increased by 67 (4.63 percent) to 1,514. Employee contribution rates also increased from 5.0 percent to 5.5 percent effective July 1, 2014. Some members chose to transfer into the Unclassified Employees Retirement Fund from the State Employees Retirement Fund, which is reflected in the \$908 thousand in Transfers from Other Plans.

Total deductions increased \$10.40 million (36.32 percent) from \$28.64 million for fiscal year 2014 to nearly \$39.04 million for fiscal year 2015. This is due partly to an increase in refunds, triggered by an increase in the number of terminated participants taking lump-sum withdrawals or rolling over their full account balance to other qualified financial institutions. The majority of the increase in deductions, however, is due to transfers to other plans, which totaled \$30.23 million for fiscal year 2015, increasing significantly over \$20.83 million in fiscal year 2014. This increase is due to more Unclassified Employees Retirement Fund participants electing defined benefit retirement coverage under the State Employees Retirement Fund (General Plan) during periods of unfavorable market performance.

# Management's Discussion and Analysis

### • Health Care Savings Fund

For MSRS' fastest-growing plan, the Health Care Savings Fund, membership grew significantly during fiscal year 2015. Total participant counts increased 8,965 (9.87 percent) to over 99,800 participants as of June 30, 2015.

Fiduciary net position for the fund increased \$78.26 million (11.38 percent) during fiscal year 2015 to \$765.67 million.

Membership and payroll growth during the fiscal year caused a \$13.92 million (11.90 percent) increase in plan member contributions. Investment earnings were down in fiscal year 2015, decreasing by \$31.66 million (62.89 percent) to \$18.68 million. Together, increased contributions and decreased investment earnings led to a \$17.67 million (10.34 percent) decrease in total additions for the fiscal year.

Total deductions of \$74.99 million reflected an increase of \$3.79 million (5.32 percent). Health care reimbursements increased \$2.93 million (4.52 percent) in fiscal year 2015 in comparison to fiscal year 2014, due primarily to growth in the number of retirees who became eligible for such distributions upon termination of state employment. Recordkeeping and custodial expenses increased \$286 thousand (24.34 percent), also due to membership and asset growth during fiscal year 2015. Other expenses increased \$364 thousand (10.63 percent) to \$3.79 million, which includes \$3.59 million for participant-paid administrative fees and nearly \$202 thousand for a federal tax assessed annually through 2019 to finance operations of the Patient-Centered Outcomes Research Institute.

### • Minnesota Deferred Compensation Fund

Fiduciary net position for the Minnesota Deferred Compensation Fund increased almost \$186 million (3.28 percent) from over \$5.66 billion on June 30, 2014, to \$5.85 billion as of June 30, 2015. This correlates to growth in participants' investment portfolios, which grew by \$187 million (3.32 percent).

Total additions decreased substantially to \$489.4 million, a decrease of \$499.39 million (50.50 percent), primarily due to unimpressive fiscal year 2015 investment performance compared to substantial returns in fiscal year 2014. Employee contributions increased \$11.20 million (4.77 percent) during fiscal year 2015. This increase correlates to a slight active membership increase of almost 300 members during the fiscal year, but also to increased member-elected contribution amounts. Total deductions increased \$48.05 million (18.81 percent), mostly due to the increase in refunds during the fiscal year. Refunds increased \$44.36 million (20.30 percent) to \$262.86 million due, in part, to terminated participants rolling over their full account balance to other qualified financial institutions, and to active participants purchasing prior service credit in other Minnesota public employee defined benefit retirement plans.

• *Hennepin County Supplemental Retirement Fund* Fiduciary net position for the Hennepin County Supplemental Retirement Fund decreased \$201 thousand (0.13 percent) from \$149.27 million to \$149.07 million due to investment returns insufficient to cover refunds and benefit payments to retired members.

Total additions decreased \$15.07 million (65.33 percent) to \$8.0 million due to the substantial decrease in investment income during the 2015 fiscal year.

The number of actively contributing members declined by 52 participants (14.77 percent) during the fiscal year, which is reflected in total member and employer contributions decreasing \$74 thousand (13.70 percent) to \$466 thousand.

Total deductions increased \$971 thousand (13.43 percent) to \$8.20 million as a result of increasing withdrawals. Ongoing withdrawals increased \$948 thousand (18.29 percent) to \$6.13 million due to withdrawal options selected by participants.

### **Actuarial Valuation Results**

Beginning in fiscal year 2014, MSRS' consulting actuaries conducted two actuarial valuations for each MSRS defined benefit retirement fund: one for traditional "funding" purposes, and the other for GASB-compliant "financial reporting" purposes. Each valuation type is performed using a different set of actuarial methods and assumptions. Results of each are highlighted in the following paragraphs.

# • GASB Statements No. 67 and No. 68 Actuarial Valuations

This is the second year since MSRS implemented new pension accounting and financial reporting standards authorized by the Governmental Accounting Standards Board (GASB). To comply with GASB Statement No. 67, *Financial Reporting for Pensions, an amendment of GASB Statement No.* 25, MSRS relied upon its consulting actuary to compute the total pension liability, net pension liability, pension income or expenses, and deferred outflows and deferred inflows of resources for each of its defined benefit retirement plans as of June 30, 2015. MSRS' participating governmental employers are required to report their respective shares of these amounts in their financial statements for fiscal years beginning after June 15, 2014, in compliance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions, an amendment of GASB Statement No. 27.* 

For MSRS' largest cost sharing, multiple-employer defined benefit fund, the State Employees Retirement Fund, the June 30, 2015, GASB-compliant actuarial valuation report revealed a net pension liability of \$1.54 billion. Due to the partial recognition of deferred investment returns from fiscal year 2014, the actuarial valuation results reported pension income totaling \$370.17 million, instead of pension expense. The State of Minnesota, MSRS' principal participating employer, and its component units will recognize over 99 percent of the net pension liability and pension income in their financial statements for fiscal year 2016. As a result of this June 30, 2015, actuarial valuation, plan fiduciary net position as a percentage of the total pension liability was 88.32 percent, increasing 0.68 percent from the ratio of 87.64 percent reported as of June 30, 2014.

Additional information on the GASB-compliant actuarial valuation results for MSRS' other defined benefit retirement funds, can be found in the *Actuarial Section* of this report, beginning on page 164.

### • Funding Actuarial Valuations

From a funding perspective as of July 1, 2015, the most recent actuarial valuation date, the contribution deficiencies for MSRS' largest pension trust fund, the State Employees Retirement Fund, as well as the State Patrol Retirement Fund, decreased in comparison to the contribution deficiencies one year earlier due to the recognition of deferred gains from prior years. For the Correctional Employees, Judges, and Legislators Retirement Funds, the deferred gains were not sufficient to offset increased liabilities due to actuarial assumption changes, and the contribution deficiencies for those funds increased and remain sizeable.

The July 1, 2015, actuarial valuation results indicate the State Employees Retirement Fund was 85.72 percent funded, the State Patrol Retirement Fund was 76.81 percent funded, the Correctional Employees Retirement Fund was 70.90 percent funded, and the Judges Retirement Fund was 53.30 percent funded. These funded ratios are calculated using the actuarial value of assets. Except for the Legislators Retirement Fund, all of the funded ratios for the retirement funds improved in comparison to the July 1, 2014, funded ratios due to recognition of deferred gains on assets from prior years. Helping to improve the funded ratio, increased employer and employee contribution rates took effect in the beginning of fiscal year 2015 for the three largest funds (State Employees, State Patrol, and Correctional Employees Retirement Funds), with additional increases due to take effect on July 1, 2016, for the State Patrol Retirement Fund.

The actuarial valuations also reflect a number of changes in actuarial assumptions across all plans, the most significant being a reduction in the discount rate, or investment return assumption. The rate, which had previously been 8.0 percent through June, 2017 and 8.5 percent thereafter, was reduced to 8.0 percent for all years. The assumptions for payroll growth, salary increases, and inflation assumptions were also all reduced by 0.25 percent. These reductions led to an increase in the actuarial accrued liability for all funds except Legislators. An additional assumption change, which delays the scheduled post-employment benefit increases, leads to a decrease in the actuarial accrued liability in the State Patrol Fund. The impact of these actuarial assumption changes is an overall decrease in the actuarial accrued liability for the State Patrol Fund. In addition, a recent six-year experience study for the State Employees Retirement Fund, completed as of June 30, 2015, has shown that members are living longer. Experience studies for the all of the other plans except the Legislators Retirement Fund, due to be completed in fiscal year 2016, will likely yield the same result, which may lead to additional assumption changes in fiscal year 2016 that will further increase the actuarial accrued liability for these funds.

An economic downturn and lower investment returns could result in the deterioration of the funding status of the retirement funds, increasing contribution deficiencies and depleting assets. The MSRS Board of Directors continues to monitor funding status, contribution deficiency rates, economic conditions, and actuarial experience, and will take appropriate action, as necessary, to ensure the financial security of the retirement funds.

Additional information about the July 1, 2015, actuarial valuation results for each defined benefit fund can be found in the *Actuarial Section* of this report, beginning on page 127.

### **Request for Information**

This financial report is intended to provide a general overview of MSRS' financial position as of June 30, 2015, and the results of financial activities for fiscal year 2015. If you have any questions or comments concerning the contents of this report, please contact Minnesota State Retirement System by mail at 60 Empire Drive, Suite 300, Saint Paul, MN 55103-3000, by telephone toll-free at 1-800-657-5757, or via e-mail at info@msrs.us.

# **Statement of Fiduciary Net Position**

As of June 30, 2015

(Dollars in thousands)	Defined Benefit Funds					
	State Employees	State Patrol	Correctional Employees	Judges		
Assets						
Cash	\$9,220	\$864	\$2,076	\$548		
Short-term investments	205,232	11,828	16,724	3,363		
Total Cash & Short-term Investments	\$214,452	\$12,692	\$18,800	\$3,911		
Receivables						
Accounts Receivable	\$12,415	\$834	\$1,936	\$119		
Accrued Interest	0	0	0	0		
Due from Other Plans	4,803	1	6	2		
Due from the State's General Fund Other Receivables	0 762	0 41	0 31	0 13		
Total Receivables	\$17,980	\$876	\$1,973	\$134		
Investment Pools (at fair value)	¥±1,500		Ψ±,>> i >	¥101		
Fixed Income Pool	\$2,736,251	\$156,362	\$213,537	\$40,967		
Growth Share Pool	\$2,730,251 3,688,408	\$150,302 210,773	287,844	\$40,907 55,222		
Common Stock Index Pool	1,807,316	103,278	141,043	27,059		
Alternative Investment Pool	1,434,881	81,996	111,978	21,483		
International Equity Pool	1,731,549	98,949	135,130	25,924		
Supplemental Investment Fund	0	0	0	0		
Mutual Funds	0	0	0	0		
Total Investments	\$11,398,405	\$651,358	\$889,532	\$170,655		
Securities Lending Collateral	\$1,185,073	\$67,725	\$92,513	\$17,755		
Capital Assets						
Land	\$88	<b>\$</b> 0	\$0	<b>\$</b> 0		
Building, Improvements, Equip. (Net of Depr.)	5,347	0	0	0		
Office Equipment and Fixtures (Net of Depr.)	43	0	0	0		
Computer and VoIP System (Net of Amort.)	61	0	0	0		
Computer Software (Net of Amortization)	14,155	0	0	0		
Total Capital Assets	\$19,694	\$0	\$0	\$0		
Total Assets	\$12,835,604	\$732,651	\$1,002,818	\$192,455		
Deferred Outflows of Resources						
Total Deferred Outflows of Resources	\$0	\$0	\$0	\$0		
Liabilities						
Accounts Payable	\$5,206	\$233	\$325	\$63		
Compensated Absences	\$5,200 918	¢233 0	\$325 0	\$05 0		
Securities Lending Collateral	1,185,073	67,725	92,513	17,755		
Due To Other Plans	12	163	711	57		
Due to the State's General Fund	0	0	0	0		
Accrued OPEB Liability	93	0	0	0		
Bonds Payable	4,884	0	0	0		
Other Payables	1,099	0	267	0		
Total Liabilities	\$1,197,285	\$68,121	\$93,816	\$17,875		
Deferred Inflows of Resources						
Total Deferred Inflows of Resources	\$0	\$0	\$0	\$0		
Net Position Restricted for Pensions	\$11,638,319	\$664,530	\$909,002	\$174,580		

The accompanying notes are an integral part of the financial statements.

	-				
			ribution Funds		
Legislators	Unclassified Employees	Health Care Savings Plan	MN Deferred Compensation	Hennepin County Supplemental	Totals
\$741	\$O	\$O	<b>\$</b> 0	\$0	\$13,449
57	66	1,707	10,431	57	249,465
\$798	\$66	\$1,707	\$10,431	\$57	\$262,914
<b>\$</b> 0	<b>*</b> 255		<b>*7</b> 0 <b>0</b> 0	<b>#4 -</b>	<b>*2</b> 0 444
\$0 0	\$357 0	\$5,516 0	\$7,920 0	\$17 0	\$29,114 0
3	0	73	127	0	5,015
0	0	0	0	0	0
14	0	0	428	0	1,289
\$17	\$357	\$5,589	\$8,475	\$17	\$35,418
фо <b>1</b> Т	¢0	¢0	<b>ش</b>	<b>*</b> 0	¢2 1 47 02 4
\$817 1,101	\$0 0	\$0 0	\$0 0	\$0 0	\$3,147,934 4,243,348
540	0	0	0	0	2,079,236
428	0	0	0	0	1,650,766
517	0	0	0	0	1,992,069
0	315,112	761,007	1,360,732	149,076	2,585,927
0	0	0	4,473,281	0	4,473,281
\$3,403	\$315,112	\$761,007	\$5,834,013	\$149,076	\$20,172,561
\$354	\$4,587	\$11,100	\$85,058	\$2,170	\$1,466,335
\$0	\$0	\$0	\$0	\$0	\$88
φ0 0	φ0 0	\$0 0	\$0 0	<b>ФО</b> О	5,347
Ő	ů 0	Ő	Ő	Ő	43
0	0	0	0	0	61
0	0	0	0	0	14,155
\$0	\$0	\$0	\$0	\$0	\$19,694
\$4,572	\$320,122	\$779,403	\$5,937,977	\$151,320	\$21,956,922
\$0	\$0	\$0	\$0	\$0	\$0
dh m	ф <b>г г</b>	\$440	¢1.055	¢ог	ф <u>т</u> 407
\$5 0	\$55 0	\$449 0	\$1,055 0	\$35 0	\$7,426 918
354	4,587	11,100	85,058	2,170	1,466,335
35	410	2,112	1,472	43	5,015
748	0	0	0	0	748
0	0	0	0	0	93
0	0	0	0	0	4,884
0	0	68	308	0	1,742
\$1,142	\$5,052	\$13,729	\$87,893	\$2,248	\$1,487,161
	**	**	**	<u> </u>	
\$0	\$0	\$0	\$0	\$0	\$0
\$3,430	\$315,070	\$765,674	\$5,850,084	\$149,072	\$20,469,761

MSRS 2015 Comprehensive Annual Financial Report - Financial Section

# Statement of Changes in Fiduciary Net Position

For the Fiscal Year Ended June 30, 2015 (Dollars in thousands)

	Defined Benefit Funds				
	State Employees	State Patrol	Correctional Employees	Judges	
Additions					
Contributions					
Plan Member Contributions	\$149,293	\$9,174	\$21,061	\$3,629	
Employer Contributions	146,333	13,763	29,480	9,776	
General Fund Contributions	0	0	0	0	
Total Contributions	\$295,626	\$22,937	\$50,541	\$13,405	
Investment Income					
Investment Income	\$511,271	\$29,485	\$39,401	\$7,724	
Less Investment Expenses	16,183	930	1,253	244	
Net Investment Income	\$495,088	\$28,555	\$38,148	\$7,480	
Income from Securities Lending Activities					
Securities Lending Income	\$8,878	\$507	\$693	\$133	
Securities Lending Expenses					
Borrower Rebates	\$348	\$20	\$27	\$5	
Management Fees	2,433	139	190	36	
Total Securities Lending Expenses	\$2,781	\$159	\$217	\$41	
Net Income From Securities Lending Activities	\$6,097	\$348	\$476	\$92	
Total Net Investment Income	\$501,185	\$28,903	\$38,624	\$7,572	
Other Additions					
Transfers From Other Plans	\$30,226	\$0	<b>\$</b> 0	<b>\$</b> 0	
Other Income	175	1,000	0	0	
Total Other Additions	\$30,401	\$1,000	\$0	<b>\$</b> 0	
Total Additions	\$827,212	\$52,840	\$89,165	\$20,977	
Deductions					
Annuity Benefits	\$665,821	\$55,465	\$54,909	\$21,893	
Ongoing Withdrawals	0	0	0	0	
Health Care Reimbursements	0	0	0	0	
Refunds	12,026	15	1,590	0	
Transfers to Other Plans	908	0	0	0	
Recordkeeper and Custodian Expenses	0	0	0	0	
Administrative Expenses	8,719	170	720	60	
Other Expenses	23	0	0	0	
Total Deductions	\$687,497	\$55,650	\$57,219	\$21,953	
Net Increase (Decrease) in Net Position	\$139,715	\$(2,810)	\$31,946	\$(976)	
Net Position Restricted for Pensions					
Beginning of Year	\$11,498,604	\$667,340	\$877,056	\$175,556	
End of Year	\$11,638,319	\$664,530	\$909,002	\$174,580	
	\$11,036,317	φ00 <del>4</del> ,550	\$909,002	\$17 <b>4,</b> 500	

The accompanying notes are an integral part of the financial statements.

		on Funds	Defined Contributi	1	
Totals	Hennepin County Supplemental	MN Deferred Compensation	Health Care Savings Plan	Unclassified Employees	Legislators
\$566,625	\$235	\$246,013	\$130,894	\$6,173	\$153
205,839	231	[#] 0	π - c ο , σ - · · · · 0	6,256	# e 0
3,216	0	0	0	0	3,216
\$775 <b>,</b> 680	\$466	\$246,013	\$130,894	\$12,429	\$3,369
\$871,754	\$7,536	\$241,911	\$19,118	\$15,022	\$286
23,206	97	3,792	495	205	7
\$848,548	\$7,439	\$238,119	\$18,623	\$14,817	\$279
\$10,943	\$16	\$602	\$79	\$32	\$3
\$429	\$1	\$24	\$3	\$1	\$0
پې <u>ب</u> 29 2,993	φ1 4	\$24 160	\$3 21	φ1 9	\$0 1
\$3,422	\$5	\$184	\$24	\$10	\$1
\$7,521	\$11	\$418	\$55	\$22	\$2
\$856,069	\$7,450	\$238,537	\$18,678	\$14,839	\$281
\$31,134	\$0	<b>\$</b> 0	\$0	\$908	\$0
9,982	83	4,857	3,673	194	0
\$41,116	\$83	\$4,857	\$3,673	\$1,102	\$0
\$1,672,865	\$7,999	\$489,407	\$153,245	\$28,370	\$3,650
\$806,529	\$0	<b>\$</b> 0	\$0	\$0	\$8,441
39,335	6,130	33,205	0	0	0
67,688	0	0	67,688	0	0
286,858	1,911	262,855	0	8,461	0
31,134	0	0	0	30,226	0
2,956	36	1,402	1,461	57	0
15,367	25	3,463	2,048	125	37
6,674	98	2,596	3,789	168	0
\$1,256,541	\$8,200	\$303,521	\$74,986	\$39,037	\$8,478
\$416,324	\$(201)	\$185,886	\$78,259	\$(10,667)	\$(4,828)
\$20,053,437	\$149,273	\$5,664,198	\$687,415	\$325,737	\$8,258
\$20,469,761	\$149,072	\$5,850,084	\$765,674	\$315,070	\$3,430

MSRS 2015 Comprehensive Annual Financial Report - Financial Section

# Notes to the Financial Statements

These notes provide disclosures relevant to the basic financial statements on the preceding pages.

## 1. Summary of Significant Accounting Policies

### A. Basis of Presentation and Basis of Accounting

### **Basis of Presentation**

The accompanying financial statements were prepared in accordance with generally accepted accounting principles (GAAP). In doing so, the Minnesota State Retirement System (MSRS) adheres to accounting and financial reporting standards established by the Governmental Accounting Standards Board (GASB). GASB is the independent, not-for-profit, standards-setting organization and the official source of GAAP for state and local governmental entities in the United States of America.

MSRS did not implement any new GASB governmental accounting standards during the fiscal year ended June 30, 2015.

MSRS' accounts are organized and presented on the basis of funds. All of the funds presented in the financial statements are fiduciary funds. These funds are classified as pension trust funds, and are maintained for the exclusive benefit of the members or their beneficiaries.

### **Basis of Accounting**

The basis of accounting indicates the timing of transactions or events for recognition in the financial statements. MSRS' financial statements are reported using the accrual basis of accounting. Plan member contributions, employer contributions, and related receivables are recognized as revenues when due, pursuant to formal commitments and statutory requirements. Annuity benefits and refunds are recognized when due and payable in accordance with the terms of each plan. Administrative and other expenses, and the associated liabilities, are recognized when the liability is incurred.

### B. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position Restricted for Pensions

### **Cash and Cash Equivalents**

For MSRS' defined benefit retirement funds, cash and cash equivalents include cash on deposit in the state's treasury, commingled with other state funds, and short-term investments. Cash on deposit consists of year-end receipts not yet processed as of the investment cutoff on June 30. Short-term investments, which the Minnesota State Board of Investment (SBI) staff manage, include U.S. Treasury issues, repurchase agreements, bankers' acceptances, commercial paper, and certificates of deposit. For each MSRS defined contribution fund, cash equivalents represent the money market funds associated with a Plan Sponsor Account, or plan expense account. This is the account the recordkeeper uses to deposit monthly participant administrative fees and to pay authorized, allowable plan operating expenses.

### **Accounts Receivable**

Accounts receivable represents plan member and employer contributions, calculated as a percentage of each employee's salary as specified in *Minnesota Statutes*, which is received after fiscal year-end for services rendered during the fiscal year. The statutory employee and employer contribution rates in effect for fiscal year 2015 for MSRS' retirement funds are shown in **EXHIBIT 1** on the following page.

Retirement Fund	Employee Contribution Rate	Employer Contribution Rate
State Employees (General Plan)	5.50%	5.50%
State Patrol *	13.40	20.10
Correctional Employees	9.10	12.85
Judges - Tier 1 Benefit Program	9.00	22.50
Judges - Tier 2 Benefit Program	7.00	22.50
Legislators	9.00	Funded by appropriation from the State's General Fund
Unclassified Employees	5.50	6.00
Hennepin County Supplemental	1.00	1.00

# EXHIBIT 1: FISCAL YEAR 2015 EMPLOYEE AND EMPLOYER STATUTORY CONTRIBUTION RATES FOR MSRS RETIREMENT FUNDS, WHERE APPLICABLE

* Excludes \$1 million supplemental state contribution, which will be received on an annual basis until the State Patrol Retirement Fund and the Public Employees Retirement Association Police and Fire Retirement Fund both reach a 90 percent funded level on a market value of assets basis.

For the defined contribution funds, accounts receivable also includes any plan administrative fees, determined as a percentage of each participant's account balance, that were earned during the fiscal year, but received after fiscal yearend. These fees are collected on the first business day of every month based on each participant's account balance at the end of the preceding month. They are used to pay for recordkeeping and custodial services, and to reimburse MSRS for expenses incurred to administer the plan. The fiscal year 2015 plan administrative fee rate structure for each defined contribution fund is shown in **EXHIBIT 2**.

Exhibit 2: Fiscal Year 2015 Plan Administrative Fee Schedule For MSRS Defined Contribution Retirement Funds				
Defined Contribution Retirement Fund	Administrative Fee Rate Schedule			
Unclassified Employees	<ul> <li>\$2 per month for an account balance up to \$10,000</li> <li>\$4 per month for an account balance that is between \$10,000.01 and \$30,000</li> <li>\$6 per month for an account balance that is between \$30,000.01 and \$90,000</li> <li>\$8 per month for an account balance over \$90,000</li> </ul>			
Health Care Savings	0.65% or 65 basis points of a participant's account balance (\$140 annual maximum fee)			
Minnesota Deferred Compensation	0.05% or 5 basis points of the first \$100,000 of a participant's account balance (\$50 annual maximum fee)			
Hennepin County Supplemental	0.05% or 5 basis points of a participant's account balance			

# Notes to the Financial Statements

### Interfund Receivables, Payables, and Transfers

The purpose of interfund receivables and payables is to accrue interfund obligations that are outstanding as of the fiscal year-end date, June 30. Most of these balances are the result of our reallocation of administrative expenses, which is done annually. The only balance that may not be completely liquidated during the ensuing fiscal year is the interfund payable from the Unclassified Employees Retirement Fund to the State Employees Retirement Fund.

Interfund transfers are primarily the result of elective membership eligibility changes that have occurred during the fiscal year.

### Due From/To The State's General Fund

The Legislators Retirement Fund is primarily funded on a pay-as-you-go basis with annual appropriations from the State's General Fund. These appropriations, reported as General Fund Contributions on the *Statement of Changes in Fiduciary Net Position*, are used to finance annuity benefits paid to retirees or their survivors, member refunds, and each retirement fund's share of MSRS' administrative expenses. The amount due from the State's General Fund as of fiscal year-end represents funds receivable to cover each fund's share of administrative expenses for the fiscal year. The amount due to the State's General Fund as of fiscal year-end represents the unused portion of the full appropriation that MSRS is obligated to return to the state.

### Investments

The Minnesota State Board of Investment (SBI) is established by Article XI of the Minnesota Constitution to invest all state funds. The membership is made up of Minnesota's Governor (who is designated as chair of the Board), State Auditor, Secretary of State, and Attorney General. The legislature has also established a 17-member Investment Advisory Council (IAC) to advise the SBI and its staff on investment related matters. MSRS' Executive Director is a permanent member of the IAC.

### **Investment Policy**

All investments undertaken by the SBI are governed by the prudent person rule and other standards codified in *Minnesota Statutes*, Chapter 11A and Chapter 356A.

Within the requirements defined by *Minnesota Statutes*, Section 11A.04, the SBI, with assistance of the SBI staff and the Investment Advisory Council, has the authority for establishing and amending investment policy decisions for all funds under its control. These investment policies are tailored to the particular needs of each fund and specify investment objectives, risk tolerance, asset allocation, investment management structure, and specific performance standards. Studies that the SBI staff perform guide the on-going management of the funds and are updated periodically.

### Description of Significant Investment Policy Changes During the Year

The SBI made no significant changes to their investment policies during fiscal year 2015.

### Participation in the State's Combined Investment Funds

The state's public retirement fund assets are commingled in various pooled investment accounts, commonly referred to as the Combined Funds. *Minnesota Statutes* Section 11A.14 establishes the Combined Funds, which the SBI administers. Each participating retirement fund owns an undivided participation in all of the assets of the Combined Funds' pooled investment accounts.

As of June 30, 2015, MSRS Funds' share of the Combined Funds, at fair value, was approximately 22 percent (\$13.1 billion for MSRS and \$60.1 billion total, exclusive of short-term investments). **EXHIBIT 3**  displays specific totals of MSRS' investment portfolio by category. *Minnesota Statutes*, Section 11A.24, broadly restricts retirement fund investments to obligations and stocks of United States and Canadian governments, their agencies and their registered corporations; short-term obligations of specified high quality; restricted participation as a limited partner in venture capital, real estate or resource equity investments; restricted participation in registered mutual funds; and some qualified foreign instruments. Various alternative investments, including international securities, are limited by statute to 35 percent of the fund pool.

(Dollars in thousands)	Amount	
MSRS Fund Pooled Accounts	As of June 30, 2015	
Fixed Income Pool	\$3,147,934	
Growth Share Pool	4,243,348	
Common Stock Index Pool	2,079,236	
Alternative Investment Pool	1,650,766	
International Equity Pool	1,992,069	
Subtotal – MSRS' share of the SBI's Combined Funds	\$13,113,353	
Supplemental Investment Fund	2,585,927	
Mutual Funds	4,473,281	
Total Investment Pools	\$20,172,561	
Short-term Investments	249,465	
Total MSRS Investment Portfolio	\$20,422,026	

# Notes to the Financial Statements

### Valuation of Investments

Investments in the pooled accounts, the Supplemental Investment Fund, and the Minnesota Deferred Compensation Plan (mutual funds) are reported at fair value. Fair value is the proportionate share of the combined market value of the investment portfolio of the SBI investment pool in which the funds participate. All securities within the pools are valued at fair value except for U.S. government short-term securities and commercial paper, which are valued at market less accrued interest. Accrued interest is recognized as short-term income. The SBI values long-term fixed income securities by using the Financial Times Interactive Data Services valuation system. This service provides prices for both actively traded and privately placed bonds. For equity securities, the SBI uses a valuation service provided by Reuters and market value is the last reported sales price for securities traded on national or international exchanges. If a security is not actively traded, then the fair value is based on the analysis of financial statements, analysis of future cash flows and independent appraisals.

Assumptions made in valuing securities are as follows:

- Values of actively traded securities determined by recognized exchanges are objectively negotiated purchase prices between willing buyers and sellers, and are not subject to either undue influence or market manipulation.
- Values of securities not actively traded are determined by objective appraisals by qualified professional analysts whose results would not vary materially from those of other similarly qualified professionals. The fair value of investments is based upon valuations provided by a recognized pricing service. Securities traded on a national or international exchange are valued using the last reported trade price. Shortterm investments are reported at cost, which approximates fair value. The fair value of real estate investments is based on independent yearly appraisals. Investments that do not have an established market are reported at estimated fair value.

### **Investment Income**

Investment income is recognized as it is earned. Accrued investment income of the pooled investment accounts is included in participation in the accounts. Gains and losses on sales or exchanges are recognized on the transaction date.

### **Investment Expenses**

For financial reporting purposes, the cost of security transactions is included in the transaction price. Investment expenses include administrative expenses of the SBI to manage the state's comprehensive investment portfolio and investment management fees paid to the external money managers and the state's master custodian for pension fund assets. These expenses are allocated proportionately to the funds participating in the pooled investment accounts. MSRS' share of these expenses in fiscal year 2015 totaled \$23,205,652: \$16,183,282 for the State Employees Retirement Fund, \$930,385 for the State Patrol Retirement Fund, \$1,252,410 for the Correctional Employees Retirement Fund, \$243,777 for the Judges Retirement Fund, \$7,402 for the Legislators Retirement Fund, \$204,449 for the Unclassified Employees Retirement Fund, \$494,898 for the Health Care Savings Plan, \$3,792,282 for the Minnesota Deferred Compensation Plan, and \$96,767 for the Supplemental Retirement Plan for Hennepin County. Details of these expenses are presented in the Schedule of Investment Manager Fees, Commissions and Other Investment Expenses found within the unaudited Investment Section of this comprehensive annual financial report. A more detailed schedule of fees and commissions the SBI paid to brokerage firms, along with the number of shares traded, total commissions, commissions per share for the pooled investment accounts, and other investment information may be obtained from the Minnesota State Board of Investment at the Retirement Systems of Minnesota Building, 60 Empire Drive, Suite 355, Saint Paul, Minnesota 55103.

Investment expenses exclude the plan administrative fees, self-directed brokerage account fees, investment advisory service fees, and any fund redemption fees deducted from participants' defined contribution retirement plan account balances. These investment-related fees are reported as Other Expenses in the *Statement of Changes in Fiduciary Net Position.* 

Information about the primary government's (State of Minnesota) investments, including credit risk classification, can be obtained from Minnesota Management and Budget, 400 Centennial Building, 658 Cedar Street, Saint Paul, Minnesota 55155.

Note 1: Summary of Significant Accounting Policies

### Asset Allocation

To match the long-term nature of the pension obligations, the SBI maintains a strategic asset allocation for the Combined Funds that includes allocations to domestic equity, international equity, bonds, alternative assets, and cash. The long-term asset allocation is shown in **EXHIBIT 4**.

If a 20 percent allocation to Alternative Investments cannot be achieved, the uncommitted allocation in Alternatives is invested in Bonds. When the actual asset allocation deviates beyond specified ranges, assets are redistributed to achieve the long-term allocation targets. The SBI's long-term expected rate of return was determined using a building-block method. Best estimates of expected future real rates of return (expected returns, net of inflation) were developed for each asset class using both long-term historical returns and long-term capital market expectations from a number of investment management and consulting organizations. The asset class estimates and target allocations were then combined to produce a geometric, long-term expected real rate of return for the portfolio. Inflation expectations were applied to derive the nominal rate of return for the portfolio.

### EXHIBIT 4: SBI TARGET ASSET ALLOCATIONS AND LONG TERM EXPECTED REAL RATE OF RETURN

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return (Geometric Mean)
Domestic Equity	45%	5.50%
International Equity	15	6.00
Bonds	18	1.45
Alternative Assets	20	6.40
Cash	2	0.50
Total	100%	
Portfolio Real Rate of Return		5.36%
SBI Assumed Inflation Rate		_3.00
SBI Nominal Rate of Return		8.36%

### Annual Money-Weighted Rate of Return

The annual money-weighted rate of return is a method of calculating period-by-period returns on pension fund investments that adjusts for the changing amounts actually invested. The money-weighted rate of return is calculated as the internal rate of return on pension fund investments, net of pension fund investment expenses. Inputs to the internal rate of return calculation are determined by actual date. Because the pension funds each have different cash flows throughout the year, they have different money-weighted rates of return. The money-weighted rate of return for each MSRS retirement fund is presented in **EXHIBIT 5**.

### **EXHIBIT 5: MONEY-WEIGHTED RATE OF RETURN** For the year ended June 30, 2015

Retirement Fund	Money-weighted rate of return
State Employees	4.451%
State Patrol	4.457
Correctional Employees	4.440
Judges	4.451
Legislators	5.002

# Notes to the Financial Statements

### **Capital Assets**

Capital assets consist of land, building, building improvements, office equipment and fixtures, computer and VoIP (voice over internet protocol) phone system, and internally developed or acquired software intended for MSRS use only. With the exception of internally developed or acquired computer software, capital assets are defined as assets with an initial, individual cost of more than \$5,000 and an estimated minimum useful life of two years. The capitalization threshold for internally developed or acquired software is \$30,000 per application. All assets were capitalized at historical cost at the date of acquisition, issuance, or completion. All assets, except land, are depreciated or amortized when placed into operation using the straight-line method over the estimated useful lives shown in **EXHIBIT 6**.

EXHIBIT 6: CAPITAL ASSETS ESTIMATED USEFUL LIVES	
Capital Asset Types	Useful Life (In Years)
Land	N/A
Building	30
Building Improvements and Building Equipment	10
Office Equipment and Fixtures	3-10
Computer and VoIP System	5
Computer Software (for MSRS use only)	4-10

### **Deferred Outflows/Inflows of Resources**

In addition to assets, the *Statement of Fiduciary Net Position* reports a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to future periods and so will not be recognized as an outflow of resources (expense) until then.

In addition to liabilities, the *Statement of Fiduciary Net Position* also reports a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to future periods and so will not be recognized as an inflow of resources (revenue) until that time.

### **Net Position Restricted for Pensions**

Net position represents the sum of total assets and total deferred outflows of resources less the sum of total liabilities and total deferred inflows of resources. For each defined benefit and defined contribution retirement fund, the amount reported as net position is restricted for the future payment of benefits and refunds to members or their surviving spouses or beneficiaries, and administrative expenses.

### **Accrued Compensated Absences**

In accordance with various collective bargaining unit agreements, MSRS employees earn vacation, sick, and compensatory leave benefits. Earned but unused benefits are eligible for payment upon separation from state government service. At fiscal year-end, MSRS recognizes an obligation for future payment to the extent that the right to receipt is vested or expected to become vested.

# Note 2: Accounting Change

### **Other Income**

Other income for MSRS' defined benefit retirement funds represents its proportionate ownership share (26.8 percent) of the Retirement Services Building office space lease income, room rental fees, and parking fee revenues. Other income for these funds also includes employer late fees submitted with payroll contributions and fees received for fulfilling data requests.

Other income for MSRS' defined contribution retirement funds represents participant plan administrative fee income earned during the fiscal year. For the Minnesota Deferred Compensation Fund, other income also includes administrative expense reimbursements from various mutual fund companies.

For all defined contribution funds, except the Supplemental Retirement Fund for Hennepin County, this revenue is primarily used to cover fees for recordkeeping and custodial services, and to reimburse MSRS for administrative costs incurred to counsel members, adjudicate health care reimbursement claims, and perform various business support services. For the Supplemental Retirement Fund for Hennepin County, the excess of participant plan administrative fee income over recordkeeping, custodial, and MSRS' administrative expenses is returned to the County.

### Refunds

For defined benefit plans, refunds represent distributions to members, separated from service, of their retirement deductions with interest compounded daily at six percent through June 30, 2011, and at four percent thereafter. It excludes employer contribution amounts. When a member takes a refund, the member forfeits the right to retirement, survivor, and disability benefits. Refunds also include rollovers to an individual retirement account or another qualified retirement plan.

For defined contribution funds, refunds represent distributions to plan participants equal to all or a portion of their account balances, which are composed of contributions plus any investment gains or losses. Refunds may be in the form of cash withdrawals or rollovers to other qualified plans.

### **Administrative Expenses**

MSRS administrative expenses are disbursed from the State Employees Retirement Fund. While no designated revenue source is statutorily dedicated to the payment of administrative expenses, as a policy, they are paid from investment earnings. At fiscal year-end, these expenses are allocated pursuant to an approved cost reallocation plan to the various funds administered. Each fund then reimburses the State Employees Retirement Fund for their allocated portion of administrative expenses.

### 2. Accounting Changes

### A. Changes in Accounting Principles

MSRS implemented no new GASB governmental accounting standards in fiscal year 2015. Standards that will be implemented in the coming year include Statement No. 72, *Fair Value Measurement and Application*, and Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments.* 

### **B.** Additional Financial Reporting Standards

Throughout this past fiscal year, governmental employers who provide pensions to their employees through MSRS have been implementing GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27.* Beginning in fiscal year 2014, the MSRS comprehensive annual financial report provided the employer schedules required for these implementations.

# Notes to the Financial Statements

# 3. Description of System and Plans

### A. Organization

The Minnesota State Retirement System (MSRS) is the administrator of a multiple-employer, cost-sharing public employee retirement system. It consists of five defined benefit funds and four defined contribution funds. The defined benefit funds are listed below with parenthetical disclosure of the Minnesota Statutes (MS) that set forth criteria for benefit computations, members' and participating employers' obligations to make contributions, and other plan provisions:

- State Employees Retirement Fund (MS Sections 352.01 - 352.87)
- State Patrol Retirement Fund (MS Chapter 352B)
- · Correctional Employees Retirement Fund (MS Sections 352.90 - 352.955)
- Judges Retirement Fund (MS Chapter 490)
- Legislators Retirement Fund (MS Chapter 3.A)

The defined contribution funds are listed below with parenthetical disclosure of the Minnesota Statutes pertinent to plan administration:

- Unclassified Employees Retirement Fund (MS Chapter 352D)
- Health Care Savings Fund (MS Chapter 352.98)
- Minnesota (MN) Deferred Compensation Fund (MS Sections 352.965 - 352.97)
- Hennepin County Supplemental Retirement Fund (MS Sections 383B.46 - 383B.52)

*Minnesota Statutes* Section 356.20 defines financial reporting requirements for all MSRS administered retirement funds.

Responsibility for the organization is vested in MSRS' Board of Directors, which consists of eleven members. Four members are elected by the membership at large of the State Employees Retirement Fund (e.g., General Employees Retirement Plan) and the Unclassified Employees Retirement Plans. Three members are appointed by the Governor, one of which must be a constitutional officer or an appointed state official, and two of whom must be public members knowledgeable in pension matters. The remaining four members represent the State Patrol Retirement Plan, the Correctional Employees Plan, the Transit Division of the Metropolitan Council, and the retired and disabled members of all plans that MSRS administers. MSRS employees are ineligible for membership on the board of directors.

### **B.** Participating Employers

MSRS members are employed by the State of Minnesota, the University of Minnesota (non-instructional), and approximately 72 counties, 275 cities and townships, 278 school districts and other educational entities, and 222 additional miscellaneous entities.

### C. Reporting Entity

MSRS functions as a separate statutory entity. The system maintains rights to sue or be sued in its own name and to hold property in its own name. For financial reporting purposes, MSRS funds are considered pension trust funds of the State of Minnesota and are included in the State's *Comprehensive Annual Financial Report* with its fiduciary funds. MSRS does not have any component units and this report includes financial information for MSRS only.

### D. Defined Benefit Retirement Funds – Membership Statistics, Contribution Information, and Plan Descriptions

Membership statistics as of June 30, 2015, for all MSRS defined benefit retirement funds are shown in **EXHIBIT** 7 on the following page. Specific descriptions of each of these funds, including employee and employer contribution rate information, are contained on the pages that follow.

	State	State	Correctional			
As of June 30, 2015	Employees	Patrol	Employees	Judges	Legislators	Totals
Members Receiving Benefits						
Retirees	30,871	816	2,292	240	305	34,524
Disabilitants	1,819	57	279	23	N/A	2,178
Beneficiaries	3,786	154	198	83	72	4,296
<b>Total Members Receiving</b>						
Benefits	36,476	1,027	2,769	346	377	40,998
Deferred Members						
Vested, Not Receiving	16,787	52	1,276	16	56	18,189
Nonvested	6,941	17	531	0	0	7,489
<b>Total Deferred Members</b>	23,728	69	1,807	16	56	25,678
Active Members						
Vested	34,418	735	3,022	276	23	38,472
Nonvested	14,619	108	1,427	36	0	16,190
<b>Total Active Members</b>	49,037	843	4,449	312	23	54,662
Grand Total Members	109,241	1,939	9,025	674	456	121,338
Participating Employers	15	1	2	1	1	

#### **State Employees Retirement Fund**

The State Employees Retirement Fund includes the General Employees Retirement Plan (General Plan), a multipleemployer, cost-sharing plan, and three single-employer plans: the Military Affairs Plan, the Transportation Pilots Plan, and the Fire Marshals Plan. Only certain employees of the Department of Military Affairs, Department of Transportation, and the State Fire Marshals Office are eligible to be members of those plans, but all state of Minnesota employees who are not members of another plan are covered by the General Plan. The Transportation Pilots Plan has been closed to new entrants since July 1, 2008. The General Plan provides retirement, disability, and death benefits to plan members and their beneficiaries.

**EXHIBIT 7: MEMBERSHIP STATISTICS – DEFINED BENEFIT FUNDS** 

*Minnesota Statutes*, Section 352.04 requires that eligible employees contribute 5.50 percent of their total compensation to the State Employees Retirement Fund. Participating employers also are required to contribute 5.50 percent to this fund.

All active and deferred members are fully vested to the extent of their contributions plus interest at a rate of six percent through June 30, 2011, and four percent thereafter. For monthly retirement benefits, members hired before July 1, 2010, are vested after three years of covered service; members hired after June 30, 2010, are vested after five years of covered service.

Retirement benefits can be computed using one of two methods: the Step formula and the Level formula. Members hired before July 1, 1989, may use the Step or Level formula, whichever is greater. Members hired on or after July 1, 1989, must use the Level formula. Each formula converts years and months of service to a certain percentage. Under the Step formula, members receive 1.2 percent of the high-five average salary for each of the first 10 years of covered service, plus 1.7 percent for each year thereafter. It also includes full benefits under the Rule of 90 (age plus years of allowable service equals 90). In contrast, the Level formula does not include the Rule of 90. Under the Level formula, members receive 1.7 percent of the high-five average salary for all years of covered service, and full benefits are available at normal retirement age.

Annuitants receive post-retirement increases of 2.0 percent each year. When the State Employees Retirement Fund reaches or exceeds a 90 percent funded ratio for two consecutive years (determined on a market value of assets basis), the post-retirement adjustment will increase to 2.5 percent each year. Beginning July 1, 2015, the postretirement benefit increase will automatically adjust to changing funding levels. If, after reverting to a 2.5 percent increase, the funded ratio (determined on a market value of assets basis) declines to less than 80 percent for the most recent actuarial valuation year, or 85 percent for two consecutive years, the post-retirement benefit increase will return to 2.0 percent. The funding status of the State Employees Retirement Fund is actuarially calculated on an annual basis.

Continued on next page

As of June 30, 2015, all MSRS employees are members of the General Plan. MSRS employee and employer contributions, as reported in **EXHIBIT 8**, were funded at 100 percent of the required contributions set by statute.

Total covered payroll for MSRS employees was approximately \$7.1 million for fiscal year 2015. This includes \$802,695 that was capitalized in the development of internal software for MSRS.

EXHIBIT 8: MSRS CONTRIBUTIONS TO THE STATE EMPLOYEES RETIREMENT FUND						
For Fiscal Year Ended	Employee	Employer				
June 30, 2012	\$272,077	\$272,077				
June 30, 2013	307,737	307,737				
June 30, 2014	340,776	340,776				
June 30, 2015	400,445	400,445				

#### **State Patrol Retirement Fund**

The State Patrol Retirement Fund includes only the State Patrol Retirement Plan, a single-employer plan. Membership is limited to State of Minnesota employees who are state troopers, conservation officers, and certain crime bureau and gambling enforcement agents. The State Patrol Retirement Plan provides retirement, disability, and death benefits to plan members and their beneficiaries.

*Minnesota Statutes*, Section 352B.02 requires that eligible employees contribute 13.40 percent of their total compensation, with the employer contributing 20.10 percent. Effective July 1, 2016, these rates will increase to 14.40 percent and 21.60 percent, respectively.

All active and deferred members are fully vested to the extent of their contributions plus interest at a rate of six percent through June 30, 2011, and four percent thereafter. For monthly retirement benefits, members hired before July 1, 2013, become vested after three years of allowable service; members hired after June 30, 2013, are vested after ten years of allowable service. Vesting for survivor purposes for members hired after June 30, 2013, is five years of allowable service.

Members become eligible for normal retirement benefits at age 55. The benefit formula is three percent of the high five-year average salary for each year of allowable service. Allowable service used to determine benefits is limited to 33 years, with a refund of employee contributions for excess years of service. Members with at least 28 years of service as of July 1, 2013, are not subject to this service limit.

Annuitants receive post-retirement benefit increases of 1.0 percent each year. When the State Patrol Retirement Fund reaches or exceeds an 85 percent funded ratio for two consecutive years (on a market value of assets basis), the post-retirement adjustment will increase to 1.5 percent each year. When the funded ratio (determined on a market value of assets basis) reaches or exceeds 90 percent for two consecutive years, the post-retirement adjustment will increase to 2.5 percent each year. Legislative changes enacted in July 2015 make future post-retirement increases more responsive to changing market conditions by allowing automatic adjustments to the annual benefit increases. If, after reverting to a 1.5 percent increase, the funded ratio of the State Patrol Retirement Fund (determined on a market value of assets basis) declines to 75 percent or less for one year, or 80 percent or less for two consecutive years, the benefit increase will return to 1.0 percent. The funding status of the State Patrol Retirement Fund, on a market value of assets basis, is actuarially calculated on an annual basis.

A state contribution of \$1 million will be made annually to the State Patrol Retirement Fund until the State Patrol Retirement Fund and the Public Employees Retirement Association Police and Fire Retirement Fund both reach a 90 percent funded ratio, determined on the market value of assets basis.

#### **Correctional Employees Retirement Fund**

The Correctional Employees Retirement Fund includes only the Correctional Plan, a multiple-employer, costsharing plan. Membership is limited to State of Minnesota employees with 75 percent working time spent in direct contact with inmates or patients in Minnesota correctional facilities, the state-operated forensic services program, or the Minnesota Sex Offenders Program. The Correctional Employees Retirement Plan provides retirement, disability, and death benefits to plan members and their beneficiaries.

*Minnesota Statutes*, Section 352.92 requires that eligible employees contribute 9.10 percent of their total compensation. The employer contributes 12.85 percent of salary. All active and deferred members are fully vested to the extent of their contributions plus interest at a rate six percent through June 30, 2011, and four percent thereafter. For monthly retirement benefits, members hired before July 1, 2010, become vested after three years of allowable service. New hires after June 30, 2010, must have a minimum of five years allowable service before a graded vesting schedule begins, which ranges from 50 percent vested after five years of allowable service to 100 percent vested after ten years of allowable service.

Vested members become eligible for normal retirement benefits at age 55. For employees hired before July 1, 2010, the benefit formula is 2.4 percent of the high-five average salary for each year of allowable service, pro-rated for completed months. For employees hired after June 30, 2010, the benefit formula is 2.2 percent of the high-five salary for each year of allowable service, prorated for completed months. The monthly benefit can be received either as level lifelong payments or accelerated payments until a reversion age of 62 or 65. Upon attaining the reversion age, the benefit is adjusted actuarially to a lower, permanent amount.

Annuitants receive post-retirement increases of 2.0 percent each year. When the Correctional Employees Retirement Fund reaches or exceeds a 90 percent funded ratio for two consecutive years (on a market value of assets basis), the post-retirement adjustment will increase to 2.5 percent each year. Beginning July 1, 2015, the post-retirement benefit increase will automatically adjust to changing funding levels. If, after reverting to a 2.5 percent increase, the funded ratio (determined on a market value of assets basis) declines to less than 80 percent for the most recent actuarial valuation year, or 85 percent for two consecutive years, the post-retirement benefit increase will return to 2.0 percent. The funding status of Correctional Employees Retirement Fund, on a market value of assets basis, is actuarially calculated on an annual basis.

#### Judges Retirement Fund

The Judges Retirement Fund includes only the Judges Retirement Plan, a single employer plan. Membership is limited to Minnesota district, appellate and Supreme Court judges. Retirees also include former municipal and county court judges. The Judges Retirement Plan provides retirement, disability, and death benefits to plan members and their beneficiaries.

The Judges Retirement Plan provides a Tier 1 and a Tier 2 benefit program depending upon a judge's appointment or election date. Tier 1 program judges are those first appointed or elected before July 1, 2013, and Tier 2 program judges are those first appointed or elected after June 30, 2013. Judges with less than five years of service as of December 31, 2013, may make a one-time irrevocable election into the Tier 2 benefit program. *Minnesota Statutes*, Section 490.123 requires that eligible judges in the Tier 1 program contribute 9.0 percent of their total compensation. A Tier 1 program judge's contributions are redirected to the Unclassified Employees Retirement Plan after the judge's maximum retirement benefit is reached. Tier 2 program judges are required to contribute 7.0 percent of their total compensation. The employer contributes 22.5 percent of salary for both tiers.

Tier 1 members become eligible for retirement benefits at age 65 with five years of allowable service. Tier 2 members become eligible for retirement benefits at age 66 with five years of allowable service. Reduced retirement benefits are available to all members at age 60 with five years of allowable service. Mandatory retirement age is age 70 for both tiers.

The retirement benefit for Tier 1 program judges is 2.7 percent of the high-five average salary for each year of allowable service prior to July 1, 1980, plus 3.2 percent for each year of allowable service after June 30, 1980. The retirement benefit for Tier 2 program judges is 2.5 percent of the highfive average salary for each year of allowable service. The maximum benefit a Tier 1 program member receives is 76.80 percent of high-five average salary. There is no maximum benefit for Tier 2 program members.

Annuitants receive post-retirement increases of 1.75 percent each year. When the Judges Retirement Fund reaches or exceeds a 70 percent funded ratio for two consecutive years (on a market value of assets basis), the post-retirement adjustment will increase to 2.0 percent each year. When the funding status reaches or exceeds 90 percent for two consecutive years, the post-retirement adjustment will increase to 2.5 percent each year. The funding status of the Judges Retirement Fund, on a market value of assets basis, is actuarially calculated on an annual basis.

#### **Legislators Fund**

The Legislators Fund includes two state of Minnesota General Fund plans: the Legislators Retirement Plan and the Elective State Officers Retirement Plan. Each is a single employer plan that is closed to new entrants. Effective July 1, 2013, these plans were merged for administrative cost savings purposes. The General Fund plans provide retirement and death benefits to plan members and their beneficiaries.

The Legislators Retirement Plan includes members of the Minnesota State Legislature-the House of Representatives and Senate-who were first elected to office before July 1, 1997, and who elected to retain coverage under this plan. Legislators elected after that date are participants in the Unclassified Employees Retirement Plan, a defined contribution plan. The Elective State Officers Retirement Plan includes constitutional officers (e.g., Governor, Lieutenant Governor, Secretary of State, Attorney General and State Auditor) who were first elected to office between July 1, 1967, and July 1, 1997, and chose to retain coverage under this plan.

Continued on next page

Although the Legislators Retirement Plan is closed, a small number of members actively contribute to the plan. *Minnesota Statutes*, Section 3A.03 requires that these active members contribute 9.0 percent of their salary to the state's General Fund. There are no active contributing participants in the Elective State Officers Retirement Plan.

Legislators are eligible for full retirement benefits at age 62 with six years of allowable service. Reduced retirement benefits are available at age 55 with the same service requirement. For members first elected prior to January 1, 1979, the retirement benefit is computed at 5.0 percent of high-five average salary for the first eight years of service prior to January 1, 1979, and 2.5 percent for subsequent years. For members elected after December 31, 1978, the retirement benefit is computed at 2.5 percent of the high-five average salary for each year of allowable service.

Elective State Officers are eligible for full retirement benefits at age 62 with six years of allowable service. Reduced retirement benefits are available at age 60 with the same service requirement. The retirement benefit is computed at 2.5 percent of high-five average salary.

Benefits for both plans are financed on a pay-as-you-go basis, funded primarily by annual appropriations from the state's General Fund. Annual retirement benefits for Legislators who retired prior to July 1, 2003, are financed by the remaining assets of the Legislators Retirement Fund, which are expected to be depleted in fiscal year 2016. Upon depletion of those assets, all benefits will be funded on a pay-as-you-go basis with annual appropriations from the state's General Fund.

Annuitants receive post-retirement increases of 2.0 percent each year. When the State Employees Retirement Fund reaches or exceeds a 90 percent funded ratio for two consecutive years (determined on a market value of assets basis), the post-retirement adjustment will increase to 2.5 percent each year. Beginning July 1, 2015, the post-

EXHIBIT 9: MEMBERSHIP STATISTICS – DEFINED CONTRIBUTION FUNDS

retirement benefit increase will automatically adjust to changing funding levels. If, after reverting to a 2.5 percent increase, the funded ratio of the State Employees Retirement Fund (determined on a market value of assets basis) declines to less than 80 percent for the most recent actuarial valuation year, or 85 percent for two consecutive years, the post-retirement benefit increase will return to 2.0 percent. The funding status of the State Employees Retirement Fund, on a market value of assets basis, is actuarially calculated on an annual basis.

#### **Optional Retirement Annuities**

In the defined benefit funds, three joint-and-survivor annuity options are available: a 50 percent survivor benefit; a 75 percent survivor benefit; and a 100 percent survivor benefit to the beneficiary. Each option includes the right of reversion to the single-life amount if the beneficiary dies before the member. A 15-year period certain and life thereafter annuity is also available. By statute, the Legislators Retirement Fund automatically provides a 50 percent benefit continuance to a surviving spouse. Also, legislators can choose 100 percent survivor coverage with an actuarially reduced benefit.

### E. Defined Contribution Retirement Funds – Membership Statistics, Contribution Information, and Plan Descriptions

During fiscal year 2015 MSRS contracted with a thirdparty administrator, Voya Institutional Plan Services, LLC (formerly known as ING Institutional Plan Services, LLC), to provide various recordkeeping services for administering its four defined contribution funds. Effective June 30, 2015, MSRS' contract with Voya expired. Under a new contractual arrangement, Empower RetirementTM (Great-West Life & Annuity Assurance Company) became the recordkeeper for MSRS' defined contribution retirement funds on July 1, 2015. Membership statistics are provided in **EXHIBIT 9**.

	<b>Defined Contribution Retirement Fund</b>					
As of June 30, 2015	Unclassified Employees	Health Care Savings	MN Deferred Compensation	Hennepin County Supplemental		
Active Members	1,514	56,195	49,425	300		
Inactive Members	1,747	32,945	28,721	1,011		
Withdrawing Members	0	10,699	4,495	180		
Total Members	3,261	99,839	82,641	1,491		
Annual Payroll	\$112,224	N/A	N/A	\$23,520		
Participating Employers	10	539	686	2		

#### **Unclassified Employees Retirement Fund**

The Unclassified Employees Retirement Fund is a taxdeferred, defined contribution fund entirely composed of a single, multiple-employer defined contribution plan, the Unclassified Employees Retirement Plan. Participation is limited to certain, specified employees of the State of Minnesota and various statutorily designated entities. *Minnesota Statutes*, Section 352D.01 authorized creation of this plan. No MSRS employees are active participants of the Unclassified Employees Retirement Plan.

It is considered a money purchase plan, with participants vesting only to the extent of the value of their accounts (employee contributions plus employer contributions plus/minus investment gains/losses, less administrative expenses), but functions as a hybrid of a defined contribution plan and a defined benefit plan.

*Minnesota Statutes*, Section 352D.04, subdivision 2, requires a contribution rate of 5.5 percent of salary from participating employees, which is equivalent to the employee contribution rate for members of the General Employees Retirement Plan (General Plan). The employer contribution rate for the Unclassified Employees Retirement Plan is 6.0 percent of salary. Employees covered by this plan also contribute to Social Security.

Unclassified Employees Retirement Plan participants are eligible to apply for the balance in their account after termination of public service. There is no minimum employment requirement to qualify for this lump-sum payment. Since contributions made to this plan are not taxed, participants pay taxes when funds are withdrawn and may be subject to a ten percent tax penalty if funds are withdrawn in a lump sum before the member reaches age 59 1/2. Monthly benefits are available to terminated participants at age 55 or later, regardless of the individual's length of service. Participants age 55 or older may also apply for a portion of their account balance as a lump-sum payment and the remainder in lifetime, monthly benefits.

Retirement and disability benefits are available to some participants through conversion, at the participant's option, to the General Plan provided the employee has at least 10 years of allowable service in the Unclassified and/or the General Plan if hired prior to July 1, 2010, or has no more than seven years of service if hired after June 30, 2010. This conversion option is not available to judges, legislators and elected state officers. It is a contingent liability of the State Employees Retirement Fund and actuarially valued as of June 30, 2015, in the amount of \$10,106,000.

#### Health Care Savings Fund

The Health Care Savings Fund is a defined contribution fund entirely composed of the Health Care Savings Plan. It is an employer-sponsored program authorized by Minnesota Statutes Section 352.98. The Health Care Savings Plan allows employees to save tax-free contributions in an investment account to be used to reimburse the plan participants for future medical expenses and medical insurance premiums after they terminate employment. As a result of various Internal Revenue Service (IRS) rulings and regulations, benefit payments are tax exempt. Program participation is mandated by either collective bargaining agreement or personnel policy. Contribution rates are determined by collective bargaining agreements or employer personnel policies. They are highly variable, ranging from a percentage of weekly earnings to terminal, lump sum benefits such as severance pay.

#### **Minnesota Deferred Compensation Fund**

The Minnesota Deferred Compensation Fund is a defined contribution fund entirely composed of the Minnesota Deferred Compensation Plan. Minnesota Statutes Section 352.965 establishes this plan. It is a voluntary plan offered to all state employees and political subdivisions located in Minnesota. Authorized under Section 457(b) of the Internal Revenue Code, contributions and investment earnings are tax sheltered until the time of withdrawal. Employee contributions may be as little as \$10 each paycheck. Some employer units or bargaining units may match a portion of an employee's contributions annually. All contributions are subject to annual maximum limits determined by the IRS. All assets and income are held in trust, custodial accounts, or annuity contracts for the sole benefit of plan participants and beneficiaries. Plan participants may only withdraw money from their account upon separation of service or retirement. Unlike many other supplemental retirement plans, Section 457(b) plan participants who take a distribution before reaching age 59-1/2 are not subject to the IRS ten percent early withdrawal penalty.

#### Hennepin County Supplemental Retirement Fund

MSRS is responsible for providing recordkeeping services for the Hennepin County Supplemental Retirement Fund, a defined contribution fund. Only employees of Hennepin County who began employment prior to April 14, 1982, are eligible to participate in this tax sheltered nonqualified plan. This plan was created in accordance with *Minnesota Statutes* Section 383B.46 and Section 6064(d)(2) and (3) of the *Technical and Miscellaneous Revenue Act of 1988*. Employee contributions of 1.0 percent of salary are matched by employer contributions of 1.0 percent of salary.

### 4. Detailed Notes on All Activities and Funds

#### A. Assets

#### **Cash Deposits with Financial Institutions**

#### **Custodial Credit Risk - Deposits**

In the case of deposits, there is risk that in the event of a bank failure, the organization's deposits may not be returned to it. *Minnesota Statutes*, Section 9.031, requires that deposits be secured by depository insurance or a combination of depository insurance and collateral securities held in the state's name by an agent of the state. Such insurance and collateral shall be in amounts sufficient to ensure that deposits do not exceed 90 percent of the sum of the insured amount and the market value of the collateral. Throughout fiscal year 2015, the combined depository insurance and collateral was sufficient to meet legal requirements and secure all MSRS deposits, eliminating exposure to custodial credit risk.

#### **Investment Risks**

The Minnesota State Board of Investment (SBI) is responsible for investing various MSRS funds under the authority of *Minnesota Statutes*, Section 11A.24. The following disclosures apply to those investments.

#### **Credit Risk**

Credit risk is the risk that an issuer or counterparty to an investment will be unable to fulfill its obligations. The SBI has policies designed to minimize credit risk. They may invest funds in governmental obligations provided the issue is backed by the full faith and credit of the issuer, or that the issue is rated among the top four quality rating categories by a nationally recognized rating agency. They may invest funds in corporate obligations provided the issue is rated among the top four quality categories by a nationally recognized rating agency. They may also invest in unrated corporate obligations or in corporate obligations that are not rated among the top four quality categories provided that:

- The aggregate value of these obligations may not exceed five percent of the fund for which the SBI is investing;
- Participation is limited to 50 percent of a single offering; and
- Participation is limited to 25 percent of an issuer's obligations.

The SBI may also invest in bankers' acceptances, deposit notes of U.S. banks, certificates of deposit, mortgage securities, and asset-backed securities rated in the top four quality categories by a nationally recognized rating agency. Commercial paper must be rated in the top two quality categories.

As of June 30, 2015, MSRS' proportionate share of the SBI's exposure to credit risk, based on the lower of Standard and Poor's or Moody's Quality Ratings for debt securities and short-term investments, is shown in **EXHIBIT 10.** 

Exhibit 10: Credit Risk Exposure				
(Dollars in thousands)				
	Fair Value			
Quality Rating*	As of June 30, 2015			
ААА	\$258,541			
АА	56,466			
А	260,861			
BBB	631,012			
BB	306,516			
В	57,652			
CCC	14,684			
CC	10,440			
С	695			
D	4,632			
Unrated	585,220			
Agencies**	1,002,130			
U.S. Government	793,807			
Total	\$3,982,656			

*The exposure to credit risk is based on the lower of Standard and Poor's or Moody's Quality Ratings. For clarity of reporting, Moody's ratings are displayed in this exhibit using the comparable Standard and Poor's rating.

**92 percent of the Agencies quality rating consists of implicitly guaranteed investments, including the Federal Home Loan Bank (FHL Banks), Federal National Mortgage Association (Fannie Mae), Federal Home Loan Mortgage Corporation (Freddie Mac), Financing Corporation (FICO), Federal Farm Credit Banks (FCBanks), and Federal Agricultural Mortgage Corporation (Farmer Mac). The balance of the Agencies quality rating consists of federally guaranteed investments.

#### **Concentration of Credit Risk**

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of a government's investment in a single issuer. The SBI determined the concentration of credit risk based on security identification number. MSRS' defined benefit retirement funds do not have exposure to a single issuer that equals or exceeds 5 percent of any MSRS retirement fund's fiduciary net position. Therefore, there is no concentration of credit risk.

#### Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt instruments could adversely affect the fair value of an investment. The SBI controls interest rate risk through guidelines established for each portfolio. MSRS' share of debt securities are held in external investment pools and as of June 30, 2015, had the weighted-average maturities shown in **EXHIBIT 11**. Explanations of various security types follow the exhibit on the next page.

#### EXHIBIT 11: INTEREST RATE RISK

As of June 30, 2015

(Dollars in thousands)

	Defined	l Benefit Funds	Defined Co	ontribution Funds
Security Type	Fair Value	Weighted Average Maturity in Years	Fair Value	Weighted Average Maturity in Years
U.S. Agencies	\$168,597	4.66	\$8,525	5.40
Asset-Backed Securities	183,220	2.84	10,356	2.84
Short-Term Investment Securities	393,062	0.24	12,806	0.24
Commercial Mortgage-Backed Securities	238	2.28	13	2.28
Collateralized Mortgage Obligations	321,689	4.33	18,189	4.33
Corporate Debt	849,247	9.27	47,249	9.39
Foreign Country Bonds	15,340	14.86	867	14.86
Yankee Bonds	242,833	7.93	13,462	8.02
Mortgage-Backed Securities (non-commercial	) 816,942	4.86	46,193	4.86
State and Local Government Bonds	36,124	15.59	1,933	16.34
Preferred Stock	1,858	0.00	105	0.00
U.S. Treasuries	751,616	9.10	42,192	9.15
Total Fair Value	\$3,780,766		\$201,890	
Portfolio Weighted Average Maturity		6.40		6.76

EXHIBIT 11 (CONTINUED) SECURITY TYPE EXPLANATIONS

**U.S. Agencies** are low-risk debt obligations that are issued by U.S. Government-sponsored entities (GSEs) and other federally related bodies. GSEs were created to reduce the costs associated with borrowing for certain areas of the economy, including homeowners, students and farmers.

Asset-Backed Securities are securities issued by a Special Purpose Entity, substantially all of the assets of which, by their terms, may convert into cash within a finite time period. Asset-backed securities include, but are not limited to, credit cards, student loans, and automobile loans. Asset-backed securities do not include government-issued or government-guaranteed securities.

**Short-Term Investment Securities** include investment securities that are short-term, have high credit quality, and are highly liquid. The securities have a low-risk, low-return profile and include U.S. Government Treasury bills, bank certificates of deposit, bankers' acceptances, corporate commercial paper, and other money market instruments.

**Commercial Mortgage-Backed Securities** include any security, debt instrument, or offering collateralized primarily by commercial mortgage-backed securities, regardless of issuer.

**Collateralized Mortgage Obligations** are a type of mortgage-backed security that creates separate pools of passthrough rates for different classes of bondholders with varying maturities. The repayments from the pool of passthrough securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Corporate Debt** includes, but is not limited to, commercial paper of U.S. and non-U.S. companies, floating rate notes, master notes, medium term notes, or other corporate debt obligations.

Foreign Country Bonds are bonds that are issued in a domestic market by a foreign entity, in the domestic market's currency.

Yankee Bonds Yankee Bonds are dollar-denominated bonds issued in the U.S. by a foreign entity.

**Mortgage-Backed Securities** (non-commercial) are securities backed by pools of U.S. or non-U.S. mortgage loans issued by governmental, government-related or private organizations, and securities issued by Special Purpose Entities sponsored or associated with governmental, government-related or private organizations.

**State and Local Government Bonds** are debt obligations of a state or local government entity. The funds may support general government needs or special projects.

**Preferred Stock** is a class of ownership in a corporation that has a higher claim on the assets and earnings than common stock. Preferred stock generally has a dividend that must be paid out before dividends to common stockholders are paid. The preferred shares usually do not have voting rights.

**U.S. Treasuries** are negotiable debt obligations of the U.S. government secured by its full faith and credit, and issued at various schedules and maturities.

#### Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates between the U.S. dollar and foreign currencies could adversely affect the fair value of an investment. Most foreign currency risk resides within the SBI's international equity investment holdings. To reduce foreign currency risk, the SBI implements several policies. Government obligations, including guaranteed or insured issues of the International Bank for Reconstruction and Development, the Inter-American Development Bank, the Asian Development Bank, and the African Development Bank, must pay interest and principal in U.S. dollars. The principal and interest of obligations of corporations, including those corporations incorporated or organized under the laws of the Dominion of Canada or any province thereof, must also be paid in U.S. dollars. Based on total investments, the SBI has less than a 15 percent exposure to currency risk. Various investments at June 30, 2015, were distributed among the following currencies shown in **EXHIBIT 12**.

<b>EXHIBIT 12: FOREIGN CUP</b> (Dollars in thousands)	RRENCY RISK			
(15 onaro in crocoundo)	Cash & Cash		Fixed	Investmen
Currency	Equivalents	Equities	Income	Totals
Australian Dollar	\$529	\$89,817	\$0	\$90,346
Brazilian Real	12	21,957	0	21,969
Canadian Dollar	722	123,703	123	124,548
Chilean Peso	6	2,122	0	2,128
Columbian Peso	6	1,863	0	1,869
Czech Koruna	0	2,099	0	2,099
Danish Krone	17	34,507	0	34,524
Egyptian Pound	18	1,082	0	1,100
Euro Currency	1,400	525,533	11,456	538,389
Hong Kong Dollar	837	155,422	0	156,259
Indian Rupee	13	42,302	0	42,315
Indonesian Rupiah	10	7,823	0	7,833
Japanese Yen	7,581	359,570	0	367,151
Malaysian Ringgit	8	7,522	0	7,530
Mexican Peso	1	10,303	0	10,304
New Israeli Sheqel	14	4,126	0	4,140
New Taiwan Dollar	64	36,156	0	36,220
New Zealand Dollar	130	2,057	0	2,187
Norwegian Krone	291	9,381	0	9,672
Philippine Peso	2	8,904	0	8,906
Polish Zloty	3	5,950	0	5,953
Pound Sterling	3,055	314,573	3,634	321,262
Qatari Rial	0	799	0	799
Singapore Dollar	437	18,665	0	19,102
South African Rand	53	24,405	0	24,458
South Korean Won	1	39,974	0	39,975
Swedish Krona	29	41,633	0	41,662
Swiss Franc	9	133,475	0	133,484
Thailand Baht	1	10,802	0	10,803
Turkish Lira	1	2,155	0	2,156
UAE Dirham	0	1,014	0	1,014
Other	10	166	0	176
Totals	\$15,260	\$2,039,860	\$15,213	\$2,070,333

Examples of other currency include Hungarian Forint, Moroccan Dirham, and Yuan Renminbi.

Continued on next page

MSRS 2015 Comprehensive Annual Financial Report - Financial Section

81

#### **Derivative Financial Instruments**

On behalf of MSRS, the SBI invests in various types of derivative financial instruments. Derivatives are defined as any financial arrangement between two parties that has value based on or derived from future price flutuations. The derivative financial instruments that the SBI enters into include futures, options, stock warrants and rights, currency forwards, and synthetic guaranteed investment contracts.

*Minnesota Statutes*, Section 11A.24, provides that any agreement for put (sell) and call (buy) options and futures contracts may only be entered into with a fully

offsetting amount of cash or securities. This applies to foreign currency forward contracts used to offset the currency risk of a security. All other derivatives are exchange-traded. The purpose of the SBI's derivative activity is to equitize cash in the portfolio, to adjust the duration of the portfolio, or to offset current futures positions.

The fair value balances and notional (face value) amounts at June 30, 2015, classified by derivative instrument type, and the changes in fair value for fiscal year 2015 are shown in **EXHIBIT 13**. Explanations of each derivative instrument type are included in the exhibit.

#### EXHIBIT 13: DERIVATIVE FINANCIAL INSTRUMENTS

As of June 30, 2015

Derivative Investment Type	Changes in Fair Value During FY 2015	Fair Value at June 30, 2015	Notional Amount
Futures	8		
Equity Futures – Long	\$5,447	\$0	\$415
Equity Futures – Short	(210)	0	(11)
Fixed Income Futures – Long	3,251	0	82,818
Fixed Income Futures - Short	(5,749)	0	(281,883)
Options			
Futures Options Bought (Puts)	\$(470)	\$14	\$1,255
Futures Options Written (Calls)	858	(133)	(1,519)
Currency Forwards			
Foreign Exchange (FX) Forwards	\$1,937	\$1,231	\$88,336
Stock Warrants and Rights			
Stock Rights	\$(74)	\$78	\$127
Stock Warrants	(1)	274	97

#### Futures

Futures are contract commitments to purchase (asset) or sell (liability) at a future date. The net change in the values of futures contracts is settled on a regular basis, and gains and losses are included in investment income.

#### Options

Options are contracts that give buyers or sellers the right to buy (calls) or sell (puts) a security at a predetermined price on a future date. Gains and losses result from variances in the market value of the security that is the subject of the contract that occur prior to or on the contract specified date. The gains and losses are included in investment income.

#### **Currency Forward Contracts**

Foreign currency forward contracts are used to manage portfolio foreign currency risk. The provisions of the contract vary based on what is negotiated between the two parties to the contract.

#### Stock Warrants and Rights

Stock warrants, similar to options, are the right to purchase shares of a stock at a certain price by a certain date. They usually have five years or more before expiration. When exercised, the company issues new shares. Rights are the same but are issued to current stock owners to enable them to retain their relative ownership share. Gains and losses from the sale or exercise of stock warrants and rights are included in investment income.

The SBI maintains a fully benefit-responsive synthetic guaranteed investment contract for the Supplemental Investment Fund - Fixed Interest Account. The investment objective of the Fixed Interest Account is to protect investors from loss of their original investment and to provide a competitive interest rate. On June 30, 2015, the SBI's portfolio of well-diversified, high quality, investment grade fixed income securities had a fair value of \$1,370,700,607 that is \$24,336,283 in excess of the value protected by the wrap contract. The Fixed Income Account also includes liquid investment pools with a combined fair value of \$146,929,007.

#### **Derivative Credit Risk**

The SBI is exposed to credit risk through multiple counterparties in foreign currency forward contracts that are used to offset the currency risk of a security. MSRS' proportionate share of the maximum loss that the SBI would have recognized as of June 30, 2015, if all counterparties failed to perform as contracted is \$1,790,034. These counterparties have Standard and Poor's ratings of BBB+ or better. There is no collateral held or any liabilities included in netting arrangements with those counterparties that would have reduced the SBI's exposure to credit risk.

#### **Securities Lending Transactions**

MSRS does not own specific securities, but instead owns shares in various pooled funds invested by the SBI. The amounts shown on the financial statements are MSRS' proportionate share of securities loaned, collateral pledged and loan income that resulted from the lending activity of the investment managers, retained by the SBI, of these investment pools. The types and amounts of securities loaned are presented in **EXHIBIT 14**.

<b>EXHIBIT 14: SECURITIES LOANED</b> (Dollars in thousands)					
Investment Type	Amount as of June 30, 2015				
Domestic Equities	\$1,685,089				
U.S. Government Bonds	706,424				
International Equities	250,143				
Domestic Corporate Bonds	116,848				
International Corporate Bonds	9,934				
Total	\$2,768,438				

*Minnesota Statutes*, section 356A.06, subdivision 7, allows the SBI to participate in securities lending transactions. The SBI has, by way of a Securities Lending Authorization Agreement, authorized State Street Bank and Trust Company (State Street) to lend its securities to brokerdealers and banks pursuant to a form of loan agreement.

During the fiscal year, State Street lent, on behalf of the SBI, certain securities held by State Street as custodian and received cash or other collateral including securities issued or guaranteed by the United States government. State Street does not have the ability to pledge or sell collateral securities delivered absent a borrower default. Borrowers were required to deliver collateral for each loan equal to at least 100 percent of the market value of the loaned securities.

Pursuant to the Securities Lending Authorization Agreement, State Street had an obligation to indemnify the SBI in the event of default by the borrower. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year that resulted in a declaration or notice of default of the borrower.

During the fiscal year, the SBI and the borrowers maintained the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment pool. As of June 30, 2015, the investment pool had an average duration of 11.29 days and an average weighted final maturity of 84.73 days for U.S. dollars. Because the loans were terminable at will, their duration did not generally match the duration of the investments made with cash collateral. On June 30, 2015, the SBI had no credit risk exposure to borrowers. MSRS' share of the collateral held and the fair value of securities on loan (in U.S. dollars) as of June 30, 2015, was \$2,900,447,978 and \$2,768,438,055, respectively. Cash collateral totaling \$1,466,334,720 is reported on the *Statement of Fiduciary* Net Position as an asset and correspondingly on the statement as a liability.

#### **Capital Assets**

Capital asset activity for the year ended June 30, 2015, is reported in EXHIBIT 15.

(Dollars in thousands)				
Capital Asset Types	Balance July 1, 2014	Additions	Deductions	Balance June 30, 201
Capital Assets, Not Depreciated:				
Land	\$88	\$0	\$0	\$88
Capital Assets, to be Depreciated or Amortized:				
Building, Improvements, and Building				
Equipment	\$8,026	\$0	\$O	\$8,026
Office Equipment and Fixtures	814	0	0	814
Computer and VoIP System	454	0	0	454
Computer Software	10,790	4,488	0	15,278
Total Capital Assets, to be Depreciated or				
Amortized	\$20,084	\$4,488	\$O	\$24,572
Total Capital Assets	\$20,172	\$4,488	\$0	\$24,660
Less Accumulated Depreciation or				
Amortization for:				
Building, Improvements and Building				
Equipment	\$(2,460)	\$(219)	<b>\$</b> 0	\$(2,679)
Office Equipment and Fixtures	(765)	(6)	0	(771)
Computer and VoIP System	(304)	(89)	0	(393)
Computer Software	(374)	(749)	0	(1,123)
Total Accumulated Depreciated or				
Amortization	\$(3,903)	\$(1,063)	\$0	\$(4,966)
Total Capital Assets, Net of				
Accumulated Depreciation or Amortization	\$16,269	\$3,425	\$0	\$19,694

### **B.** Liabilities

#### **Lease Obligations**

MSRS' main office is in the Retirement Systems of Minnesota (RSM) building located in St. Paul. MSRS, Public Employees Retirement Association (PERA), and Teachers Retirement Association (TRA), jointly own this building under the terms of a co-tenancy agreement. MSRS also leases space for branch offices in Mankato, Detroit Lakes, and Duluth, and has an interagency agreement with TRA to reimburse TRA for one-half of the lease costs for office space located in the St. Cloud, Minnesota branch office. During fiscal year 2015, MSRS leased additional space in the Retirement Services Building. Effective July 1, 2015, MSRS acquired this space and the terms of the co-tenancy agreement were modified to reflect the change in building ownership ratios among the three retirement systems. MSRS also leased space in the Hennepin County Government Center during the fiscal year; that contract terminated April 30, 2015.

As of June 30, 2015, future obligations under the terms of those leases are scheduled in **EXHIBIT 16** on the next page.

Exhibit 16: Lease Obligations							
Fiscal Year Ending June 30	Mankato	St. Cloud	Duluth	Detroit Lakes	Totals		
2016	\$75,609	\$8,565	\$25,230	\$4,192	\$113,596		
2017	75,609	4,282	25,613	0	105,504		
2018	82,221	0	25,995	0	108,216		
2019	83,542	0	15,294	0	98,836		
2020	83,542	0	0	0	83,542		
2021-2023	181,009	0	0	0	181,009		
Totals	\$581,532	\$12,847	\$92,132	\$4,192	\$690,703		

#### Long-term Debt

Legislation was passed in 1999 allowing MSRS, TRA and PERA to purchase land and construct a 140,000 square foot building to house all three retirement systems. Ownership of the facility is prorated based on the proportionate share of the building's usable space in square feet. On June 1, 2000, the state Department of Finance (currently known as Minnesota Management and Budget) issued \$29,000,000 in 30-year revenue bonds to finance the building construction.

In the fall of 2012, the remaining bonds were refunded with the proceeds of a new, lower-interest rate bond issue. The bonds are secured by the value of the total assets of the retirement systems, excluding all amounts contributed to and deposited for the Elective State Officers Retirement Plan (MSRS), the Legislators Retirement Plan (MSRS), the Supplemental Investment Fund for participants in the Unclassified Employees Retirement Plan (MSRS), the Minnesota Deferred Compensation Plan (MSRS), the Hennepin County Supplemental Retirement account (MSRS), the Health Care Savings Plan (MSRS), the Public Employees Defined Contribution Plan (PERA), the Volunteer Firefighters Lump Sum Retirement Plan (PERA), and any fund related to or dedicated to defined contribution plans administered by the retirement systems. Through the issuance of the refunding bonds, which received an AAA rating in late July 2012, the bond term has been reduced by five years and the present value of the savings to the three systems is \$9,582,538. The MSRS portion of the savings is \$2,568,120.

**EXHIBIT 17** on the following page shows the debt service amounts for which MSRS is directly responsible. Pursuant to the joint and several liability clause in the bond sale official statement, in the event of default, MSRS could be liable for the entire remaining outstanding principal and premium balances of the bonds, plus the interest accrued for the month of June, a total of \$18,222,166. Bonds Payable on the *Statement of Fiduciary Net Position* is the MSRS share of the outstanding debt, calculated at MSRS' building ownership percentage on June 30, 2015, of 26.8 percent. Bonds Payable includes the principal balance as of June 30, 2015, the premium balance as of June 30, 2015, and interest accrued for the month of June.

Continued on next page

Fiscal Year	Principal	Interest	Premium	Total Principal, Interest & Premium
2016	\$440,860	\$75,740	\$41,134	\$557,734
2017	448,900	68,431	39,627	556,958
2018	458,280	60,988	38,092	557,360
2019	471,680	53,389	36,525	561,594
2020	478,380	45,569	34,912	558,861
2021	491,780	37,637	33,276	562,693
2022	502,500	29,483	31,594	563,577
2023	513,220	21,151	29,876	564,247
2024	494,460	12,642	17,857	524,959
2025	268,000	4,443	6,276	278,719
lotals	\$4,568,060	\$409,473	\$309,169	\$5,286,702
1	d Principal, June 30, 20 d Premium, June 30, 20		\$4,568,060 309,169	
iotai Onpai	erest for June 2015	515	6,312	

#### Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions

All MSRS employees are covered by the State Employees Group Insurance Plan (SEGIP), a multiple-employer cost-sharing defined benefit plan, administered by Minnesota Management and Budget (MMB). At present, this plan subsidizes the cost of retiree insurance by charging a single premium rate for active employees and retirees, regardless of underwriting experience. Based on the results of a July 1, 2014, actuarial valuation, the SEGIP had an actuarially determined unfunded net obligation for future benefits of \$261,041,000 at June 30, 2015, to be funded on a pay-as-you-go basis. MSRS' allocated portion of this liability is \$93,000. The MSRS share of the required contributions and the net Other Post Employment Benefit (OPEB) obligation is presented in **EXHIBIT 18** on the following page.

#### EXHIBIT 18: REQUIRED OPEB CONTRIBUTIONS AND NET OPEB OBLIGATION

Fiscal Year Ended June 30	Annual Required Contribution (a)	<b>Employer</b> <b>Contribution</b> (b)	<b>Percent</b> (b)/(a)	Net OPEB Obligation
2011	\$62,000	\$48,000	77.42%	\$80,000
2012	65,000	78,000	120.00	67,000
2013	52,000	60,000	115.00	60,000
2014	53,000	43,000	81.13	70,000
2015	<b>63,</b> 000	40,000	63.49	93,000

State Employee Group Insurance Plan OPEB Disclosures:

### C. Interfund Receivables and Payables

Interfund receivables and payables as of June 30, 2015, are detailed in EXHIBIT 19.

EXHIBIT 19: DUE FROM/TO OTHER PLANS	5 AS OF JUNE 30, 2015	
(Dollars in thousands)		
	Due From Other Plans (Interfund Receivables)	Due To Other Plan (Interfund Payables
Defined Benefit Retirement Funds		
State Employees	\$4,803	\$12
State Patrol	1	163
Correctional Employees	6	711
Judges	2	57
Legislators	3	35
Defined Contribution Retirement Funds		
Unclassified Employees	0	410
Health Care Savings	73	2,112
Minnesota Deferred Compensation	127	1,472
Hennepin County Supplemental	0	43
Totals	\$5,015	\$5,015

Continued on next page

### **D.** Revenues and Expenses

#### **Administrative Expenses**

Administrative expenses by fund for the fiscal year ended June 30, 2015, are detailed in the *Schedule of Administrative Expenses* found on page 106.

#### **Reemployed Retirees' Earnings Limitations**

MSRS members whose age is under the Social Security full retirement age, and who return to work in an MSRScovered position after their retirement, are subject to an annual earnings limitation unless hired under a Post-Retirement Option (PRO) agreement. The maximum earnings limits for calendar years 2014 and 2015 for individuals under the full retirement age are \$15,480 and \$15,720, respectively. For individuals that reach full retirement age during 2014 or 2015, the maximum earnings limits are \$41,400 and \$41,880, respectively.

Benefit payments for members exceeding the earnings limit are stopped for the remainder of the calendar year and held in abeyance for later distribution to the retiree. Six percent interest, compounded annually, accrued on these funds through December 31, 2010. Effective January 1, 2011, funds held in abeyance no longer accrue interest. Funds held in abeyance are included in Other Payables in the respective fund's *Statement of Fiduciary Net Position*. As of June 30, 2015, MSRS had 68 re-employed retirees with funds held in abeyance, which totaled \$1,351,490 (\$1,084,478 for the State Employees Retirement Fund and \$267,012 for the Correctional Employees Retirement Fund).

Retirees must wait one year following termination of their post-retirement employment to be eligible to receive a distribution of these funds. At the time of distribution, the retiree may choose a lump-sum payment or a direct rollover to an eligible retirement plan as defined by section 402(c) of the Internal Revenue Code. MSRS processed 10 distributions of these funds, totaling \$614,220 (\$325,622 for the State Employees Retirement Fund and \$288,598 for the Correctional Employees Retirement Fund) during fiscal year 2015.

### E. Interfund Transfers

Interfund transfers during the fiscal year ended June 30, 2015, are shown in **EXHIBIT 20**.

	Transfers From Other Plans (Transfers In)	Transfers to Other Plans (Transfers Out)
Defined Benefit Retirement Funds		
State Employees	\$30,226	\$908
State Patrol	0	0
Correctional Employees	0	0
Judges	0	0
Legislators	0	0
Defined Contribution Funds		
Unclassified Employees	908	30,226
Health Care Savings	0	0
Minnesota Deferred Compensation	0	0
Hennepin County Supplemental	0	0
Totals	\$31,134	\$31,134

### F. Net Pension Liability of Participating Employers

Beginning in 2014, two actuarial valuations for each MSRS defined benefit retirement fund are performed annually: a traditional funding actuarial valuation and a GASB-compliant actuarial valuation. The purpose of the traditional funding actuarial valuation is to measure funding progress, and to determine the required contribution rate, contribution sufficiency or deficiency, and other actuarial information necessary for monitoring funding position. The purpose of the GASB-compliant actuarial valuation is to determine actuarial information necessary to prepare financial reports in compliance with GASB Statements No. 67 and No. 68. This includes computation of the net pension liability. Net pension liability is computed as the total pension liability for each MSRS defined benefit retirement fund, determined in accordance with GASB Statement No. 67, less the fiduciary net position of the respective fund.

**EXHIBIT 21** presents the components of the net pension liability of the participating employers for each MSRS defined benefit retirement fund as of June 30, 2015. This exhibit also depicts each retirement fund's net position as a percentage of the total pension liability.

#### EXHIBIT 21: NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

As of June 30, 2015

(Dollars in thousands)

	Defined Benefit Retirement Fund				
Component of Net Pension Liability	State Employees	State Patrol	Correctional Employees	Judges	Legislators
Total Pension Liability	\$13,177,712	\$838,235	\$1,563,245	\$410,972	\$144,353
Fiduciary Net Position	11,638,319	664,530	909,002	174,580	3,430
Employers' Net Pension Liability	\$1,539,393	\$173,705	\$654,243	\$236,392	\$140,923
Fiduciary Net Position as a percentage of the Total Pension Liability	88.32%	79.28%	58.15%	42.48%	2.38%

Continued on next page

#### **Actuarial Methods and Assumptions**

The total pension liability for each MSRS defined benefit retirement fund was determined by an actuarial valuation as of June 30, 2015, using the key actuarial assumptions shown in **EXHIBIT 22**, applied to all prior periods included in the measurement.

	Defined Benefit Retirement Fund				
	State Employees	State Patrol	Correctional Employees	Judges	Legislators
Actuarial Valuation Date		Ju	ne 30, 2015 for all	funds	
Actuarial Cost Method		Entry Age Normal for all funds			
Asset Valuation Method		Fair Value for all funds			
Long-Term Expected Rate of Return		7.90 percent for all funds			
Inflation		2.75 percent for all funds			
Salary Increases		Service related rates 2.75 percent			5.00 percent
Payroll Growth	3.50 percent 2.75 percent			Not applicable	
Mortality Rates		RP-2000 generational mortality tables projected with mortality improvement scale AA. These tables are set back or set forward to match fund experience.			
Annual post-retirement benefit increases (e.g., cost of living adjustments)	2.0% through 2043; 2.5% thereafter	1.0% through 2031; 1.5% from January 1, 2032 through 2052; 2.5% thereafter	2.0% indefinitely	1.75% indefinitely	2.0% through 2043; 2.5% thereafter
Retirement	Age-related rates				
Withdrawal	Select and Ultimate rates based on None actual experience			Ultimate rates based on actual experience	
Disability	Age-based table of rates based on experience				None

Actuarial assumptions are based on experience studies, generally conducted every four years for the State Employees Retirement Plan, and every six to eight years for the smaller MSRS defined benefit plans. The most recent studies and the periods covered are presented in EXHIBIT 23. An experience study was completed for the State Employees Retirement Fund in June 2015. Results of this study are expected to affect actuarial assumptions for the valuations performed for fiscal year 2016. Experiences studies for the State Patrol, Correctional Employees, and Judges Retirement Plans are expected to be completed in June 2016. These studies will focus on review of the assumptions for mortality, disability, pay increases, retirement, withdrawal, marital status, survivor age and form of payment; they will exclude reviews of the economic assumptions and valuation methods.

EXHIBIT 23: EXPERIENCE STUDY DATES			
Retirement Fund	Fiscal Years Covered		
State Employees	2008 - 2014		
State Patrol	2006 - 2011		
Correctional Employees	2006 - 2011		
Judges	2007 - 2011		

For additional actuarial assumptions used in determination of the June 30, 2015, valuation results, please refer to page 175 of the *Actuarial Section* of this comprehensive annual financial report.

In addition to the experience studies listed above, a study of economic assumptions took place in the fall of 2014. This study reviewed assumptions for inflation, salary increases, payroll growth, and the long-term expected rate of return, which are central to the calculations of the net pension liability for each fund.

# Long-Term Expected Rate of Return on Investments

The long-term expected rate of return used in the determination of the net pension liability is 7.9 percent. This rate assumption was selected as the result of a 2014 actuarial review of economic assumptions. The review combined the SBI's asset class target allocations and long-term rate of return expectation with return expectations from eight other investment consultants. The review also factored in information from the Social Security Trustees Report, U.S. Department of the

Treasury yield curve rates, and historical observations of inflation statistics and investment returns. All calculations in the review were made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

MSRS' consulting actuary, as a result of the review, recommended a reasonable range of 6.99 percent to 7.92 percent for the long-term expected rate of return on investments. Within this range MSRS selected 7.9 percent for purposes of the GASB-compliant financial reporting actuarial valuations because (1) the SBI has historically garnered higher than average rates of return, and (2) the SBI reacts quickly to market performance, shifting asset allocations through periodic rebalancing or other SBI Board-approved action to maximize returns. The MSRS Board of Directors approved the 7.9 percent long-term expected rate of return assumption at its September 18, 2014, board meeting.

#### **Single Discount Rate**

Projected benefit payments are discounted to their actuarial present values using a single discount rate. The single discount rate reflects (1) the long-term expected rate of return on pension plan investments for the period in which assets are projected to be available to pay benefits, and (2) a taxexempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating for the remaining years.

As long as assets are projected to be on hand to pay future benefits, the long-term expected rate of return is used as the discount rate. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk-free" municipal bond rate is required in the calculation of the single discount rate. The single discount rate is the equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods.

All MSRS defined benefit funds use a long-term expected rate of return assumption of 7.9 percent, and a municipal bond rate of 3.80 percent, as published by the Federal Reserve Board in June 2015.

The projection of cash flows used to determine the single discount rates assumes that plan member and employer contributions will be made at the current statutory contribution rates.

Based on the assumptions noted on page 175, the respective plan's fiduciary net position for the State Employees and State Patrol Retirement Funds was projected to be available to make all projected future benefit payments of

Continued on next page

current plan members. Therefore, the discount rate is the long-term expected rate of return on pension plan investments, which was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate used to measure the total pension liability was 7.9 percent.

For the Correctional Employees, Judges, and Legislators Retirement Funds, the plan's fiduciary net position was projected to be insufficient to finance the projected future benefit payments of current plan members. Therefore, a single discount rate was applied, which blends the long-term expected rate of return on pension plan investments (7.9 percent) with the tax-exempt municipal bond rate, based on an index of 20-year general obligation bonds with an average AA credit rating (3.80 percent). This single discount rate was applied to all periods of projected benefit payments to determine the total pension liability.

For the Correctional Employees Retirement Fund, the long-term expected rate of return was used to project benefit payments through 2053 and the municipal bond rate was used in 2054 and all of the following years, resulting in the single blended rate of 6.25 percent. This is a change from the previous fiscal year, when the single blended rate was 6.82 percent. For the Judges Retirement Fund, the long-term expected rate of return was used to project benefit payments through 2034 and the municipal bond rate was used in 2035 and all of the following years, resulting in the single blended rate of 5.25 percent. This is a reduction from the previous fiscal year, when the single blended rate was 5.78 percent.

For the Legislators Retirement Fund, assets are not sufficient to pay benefits in any future year, so the municipal bond rate of 3.80 percent was used in all years. In the previous fiscal year, the municipal bond rate of 4.29 percent was used to calculate the total pension liability.

Further detail on the calculation of the single discount rates can be found in the unaudited *Actuarial Section* of this comprehensive annual financial report beginning on page 164.

#### **Sensitivity Analysis**

GASB Statement No. 67 requires the disclosure of the sensitivity of the net pension liability to changes in the discount rates. **EXHIBIT 24** presents the June 30, 2015, net pension liability for each of MSRS' defined benefit retirement funds calculated using the current single discount rates, as well as what each fund's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate.

EXHIBIT 24: SENSITIVITY OF THE FY 2015 NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATES (Dollars in thousands) With 1% Decrease **Current Discount Rate** With 1% Increase Net Pension **Net Pension Net Pension Retirement Fund** Rate Liability Rate Liability Rate Liability State Employees 6.90% \$3,151,131 7.90% \$1,539,393 8.90% \$198,130 State Patrol 6.90 270,947 7.90 173,705 8.90 92,576 **Correctional Employees** 900,695 654,243 7.25 455,330 5.25 6.25

5.25

3.80

282,854

157,407

4.25

2.80

236,392

140,923

6.25

4.80

196,936

127,130

Judges

Legislators

### 5. Significant Effects of Subsequent Events

MSRS entered into an agreement with TRA and PERA for the purpose of construction and ownership of an administrative office building. Each agency owned an undivided portion of the total asset based on the amount of square footage each system occupied in the building. For MSRS that portion was originally 21.5 percent of the total. Subsequent ownership percentage revisions have been 24.6 percent (July 2007), and later 26.8 percent (July 2012). Effective July 1, 2015, the MSRS ownership was increased to 27.5 percent based on MSRS' proportionate share of the building's usable space in square feet.

**EXHIBIT 25** shows the debt service amounts for which MSRS is directly responsible based on the new ownership percentage (27.5 percent).

Fiscal				Total Principal,
Year	Principal	Interest	Premium	Interest & Premium
2016	\$452,375	\$77,718	\$42,209	\$572,302
2017	460,625	70,218	40,662	571,505
2018	470,250	62,581	39,087	571,918
2019	484,000	54,784	37,479	576,263
2020	490,875	46,759	35,824	573,458
2021	504,625	38,620	34,145	577,390
2022	515,625	30,253	32,419	578,297
2023	526,625	21,704	30,656	578,985
2024	507,375	12,972	18,323	538,670
2025	275,000	4,559	6,440	285,999
Totals	\$4,687,375	\$420,168	\$317,244	\$5,424,787

### 6. Required Supplementary Information

Required supplementary information for each defined benefit retirement fund, listed in the bullets below, is presented in the pages that follow these notes.

- Schedule of Changes in the Employers' Net Pension Liability and Related Ratios (and notes thereto)
- Schedules of Employer Contributions (and notes thereto)
- Schedule of Investment Returns

Other supplementary information presented in the succeeding sections of this comprehensive annual financial report is for the benefit of financial statement users and is not a required part of the basic financial statements.

### **Required Supplementary Information** Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

For the Years Ended June 30, 2014 and June 30, 2015* (Dollars in thousands)

State Employees Retirement Fund	2014	2015
Total Pension Liability		
Service Cost	\$256,155	\$210,545
Interest on the Total Pension Liability	922,181	1,018,035
Changes of Benefit Terms	0	0
Differences between Expected and Actual Experience in the Measurement of the Total Pension Liability	(44,023)	(493,197)
Changes of Assumptions	(1,477,308)	0
Benefit Payments, Including Refunds of Member Contributions	(635,928)	(677,847)
Net Change in Total Pension Liability	\$(978,923)	\$57,536
Total Pension Liability - Beginning	\$14,099,099	\$13,120,176
Total Pension Liability - Ending	\$13,120,176	\$13,177,712
Plan Fiduciary Net Position		
Contributions - Employer	\$128,037	\$146,333
Contributions - Plan Member	131,033	149,293
Net Investment Income	1,829,621	501,185
Benefit Payments, Including Refunds of Member Contributions	(635,928)	(677,847)
Administrative Expense	(8,125)	(8,719)
Other Changes	20,528	29,470
Net Change in Plan Fiduciary Net Position	\$1,465,166	\$139,715
Plan Fiduciary Net Position - Beginning, as Restated for 2014	10,033,438	11,498,604
Plan Fiduciary Net Position - Ending	\$11,498,604	\$11,638,319
Net Pension Liability - Ending	\$1,621,572	\$1,539,393
Plan Fiduciary Net Position as a Percentage of the		
Total Pension Liability	87.64%	88.32%
Covered-Employee Payroll	\$2,620,660	\$2,714,418
Net Pension Liability as a Percentage of Covered-Employee Payroll	61.88%	56.71%
Notes to Schedule Assumption Changes: Discount Rates:		

• 6.63% (2013); 7.90% (2014); 7.90% (2015)

Changes in Post-Retirement Benefit Increase:

- 2.0% indefinitely (2013);
- 2.0% through 2015, 2.5% thereafter (2014);

• 2.0% through 2043, 2.5% thereafter (2015)

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

MSRS 2015 Comprehensive Annual Financial Report - Financial Section

### **Required Supplementary Information** Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

For the Years Ended June 30, 2014 and June 30, 2015* (Dollars in thousands)

State Patrol Retirement Fund	2014	2015
Total Pension Liability		
Service Cost	\$14,514	\$16,144
Interest on the Total Pension Liability	60,183	63,753
Changes of Benefit Terms	0	0
Differences between Expected and Actual Experience in the Measurement of the Total Pension Liability	(5,771)	(12,855)
Changes of Assumptions	30,058	0
Benefit Payments, Including Refunds of Member Contributions	(53,722)	(55,480)
Net Change in Total Pension Liability	\$45,262	\$11,562
Total Pension Liability - Beginning	\$781,411	\$826,673
Total Pension Liability - Ending	\$826,673	\$838,235
Plan Fiduciary Net Position		
Contributions - Employer**	\$12,894	\$14,763
Contributions - Plan Member	7,930	9,174
Net Investment Income	107,187	28,903
Benefit Payments, Including Refunds of Member Contributions	(53,722)	(55,480)
Administrative Expense	(150)	(170)
Other Changes	0	0
Net Change in Plan Fiduciary Net Position	\$74,139	\$(2,810)
Plan Fiduciary Net Position - Beginning	593,201	667,340
Plan Fiduciary Net Position - Ending	\$667,340	\$664,530
Net Pension Liability - Ending	\$159,333	\$173,705
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	80.73%	79.28%
Covered-Employee Payroll	\$63,952	\$68,463
Net Pension Liability as a Percentage of Covered-Employee Payroll	249.14%	253.72%

#### Notes to Schedule

Assumption Changes:

Changes in Post-Retirement Benefit Increase:

• 1.0% indefinitely (2013);

• 1.0% through 2018, 1.5% from 2019 through 2045, 2.5% thereafter (2014);

• 1.0% through 2031, 1.5% from 2032 through 2052, 2.5% thereafter (2015)

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

** Includes supplemental state aid of \$1,000

<b>Correctional Employees Retirement Fund</b>	2014	2015
Total Pension Liability		
Service Cost	\$54,443	\$48,805
Interest on the Total Pension Liability	85,702	92,039
Changes of Benefit Terms	0	0
Differences between Expected and Actual Experience in the Measurement of the Total Pension Liability	4,103	7,115
Changes of Assumptions	(147,067)	118,399
Benefit Payments, Including Refunds of Member Contributions	(52,289)	(56,499)
Net Change in Total Pension Liability	\$(55,108)	\$209,859
Total Pension Liability - Beginning	\$1,408,494	\$1,353,386
Total Pension Liability - Ending	\$1,353,386	\$1,563,245
Plan Fiduciary Net Position		
Contributions - Employer	\$26,468	\$29,480
Contributions - Plan Member	18,855	21,061
Net Investment Income	137,523	38,624
Benefit Payments, Including Refunds of Member Contributions	(52,289)	(56,499)
Administrative Expense	(657)	(720)
Other Changes	(1)	0
Net Change in Plan Fiduciary Net Position	\$129,899	\$31,946
Plan Fiduciary Net Position - Beginning	747,157	877,056
Plan Fiduciary Net Position - Ending	\$877,056	\$909,002
Net Pension Liability - Ending	\$476,330	\$654,243
Plan Fiduciary Net Position as a Percentage of the		
Total Pension Liability	64.80%	58.15%
Covered-Employee Payroll	\$219,244	\$231,440
Net Pension Liability as a Percentage of Covered-Employee Payroll	217.26%	282.68%
Notes to Schedule Assumption Changes:		

Discount Rates:

• 6.08% (2013); 6.82% (2014); 6.25% (2015)

Changes in Post-Retirement Benefit Increase:

• 2.0% indefinitely (2013);

• 2.0% through 2065, 2.5% thereafter (2014);

• 2.0% indefinitely (2015)

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

MSRS 2015 Comprehensive Annual Financial Report - Financial Section

### **Required Supplementary Information** Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

For the Years Ended June 30, 2014 and June 30, 2015* (Dollars in thousands)

Judges Retirement Fund	2014	2015
Total Pension Liability		
Service Cost	\$12,075	\$12,251
Interest on the Total Pension Liability	20,535	21,773
Changes of Benefit Terms	0	0
Differences between Expected and Actual Experience in the Measurement of the Total Pension Liability	5,080	(4,366)
Changes of Assumptions	(8,416)	21,696
Benefit Payments, Including Refunds of Member Contributions	(20,802)	(21,893)
Net Change in Total Pension Liability	\$8,472	\$29,461
Total Pension Liability - Beginning	\$373,039	\$381,511
Total Pension Liability - Ending	\$381,511	\$410,972
Plan Fiduciary Net Position		
Contributions - Employer	\$9,426	\$9,776
Contributions - Plan Member	3,578	3,629
Net Investment Income	28,011	7,572
Benefit Payments, Including Refunds of Member Contributions	(20,802)	(21,893)
Administrative Expense	(55)	(60)
Other Changes	0	0
Net Change in Plan Fiduciary Net Position	\$20,158	\$(976)
Plan Fiduciary Net Position - Beginning	155,398	175,556
Plan Fiduciary Net Position - Ending	\$175,556	\$174,580
Net Pension Liability - Ending	\$205,955	\$236,392
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	46.02%	42.48%
Covered-Employee Payroll	\$41,893	\$43,449
Net Pension Liability as a Percentage of Covered-Employee Payroll	491.62%	544.07%

Notes to Schedule Assumption Changes: Discount Rates: • 5.57% (2013); 5.78% (2014); 5.25% (2015)

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

Legislators Retirement Fund	2014	2015
Total Pension Liability		
Service Cost	\$398	\$428
Interest on the Total Pension Liability	6,177	6,113
Changes of Benefit Terms	0	0
Differences between Expected and Actual Experience in the Measurement of the Total Pension Liability	(237)	(7,303)
Changes of Assumptions	11,201	7,057
Benefit Payments, Including Refunds of Member Contributions	(8,486)	(8,441)
Net Change in Total Pension Liability	\$9,053	\$(2,146)
Total Pension Liability - Beginning	\$137,446	\$146,499
Total Pension Liability - Ending	\$146,499	\$144,353
Plan Fiduciary Net Position		
Contributions - Employer	\$0	\$0
Contributions - Plan Member	101	153
Contributions - State General Fund Appropriation	3,436	3,216
Net Investment Income	1,750	281
Benefit Payments, Including Refunds of Member Contributions	(8,486)	(8,441)
Administrative Expense	(36)	(37)
Other Changes	0	0
Net Change in Plan Fiduciary Net Position	\$(3,235)	\$(4,828)
Plan Fiduciary Net Position - Beginning	11,493	8,258
Plan Fiduciary Net Position - Ending	\$8,258	\$3,430
Net Pension Liability - Ending	\$138,241	\$140,923
Plan Fiduciary Net Position as a Percentage of the		
Total Pension Liability	5.64%	2.38%
Covered-Employee Payroll	\$1,122	\$1,700
Net Pension Liability as a Percentage of Covered-Employee Payroll	12,320.94%	8,289.59%
Notes to Schedule Assumption Changes: Discount Rates: • 4.63% (2013); 4.29% (2014); 3.80% (2015) Changes in Post-Retirement Benefit Increase: • 2.0% indefinitely (2013); • 2.0% through 2015, 2.5% thereafter (2014); • 2.0% through 2043, 2.5% thereafter (2015) * Schedule is intended to show information for 10 years. Additional years will be distributed a		

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

MSRS 2015 Comprehensive Annual Financial Report - Financial Section

### **Required Supplementary Information** Schedule of Employer Contributions

For the Last Ten Fiscal Years (Dollars in thousands)

#### State Employees Retirement Fund

Fiscal Year Ended June 30	Actuarially Determined Contribution (1) a	Contributions Recognized by Plan in Relation to the Actuarially Determined Contribution b	Contribution Deficiency (Sufficiency) c=a-b	Covered- Employee Payroll d	Contributions as a Percentage of Covered- Employee Payroll e=b/d
2006	\$127,371	\$82,645	\$44,726	\$2,016,588	4.10%
2007	122,389	86,492	35,897	2,095,310	4.13
2008	166,088	96,746	69,342	2,256,528	4.29
2009	179,759	107,211	72,548	2,329,499	4.60
2010	230,439	113,716	116,723	2,327,398	4.89
2011	146,191	118,563	27,628	2,440,580	4.86
2012	142,740	115,159	27,581	2,367,160 (2)	4.86
2013	181,756	121,673	60,083	2,483,000 (2)	4.90
2014	195,239	128,037	67,202	2,620,660 (2)	4.89
2015	198,695	146,333	52,362	2,714,418 (2)	5.39

#### Notes to Schedule

(1) The Actuarially Determined Contribution is calculated as of July 1 each year using the actuarial methods and assumptions listed below. For additional actuarial assumptions, please refer to pages 134-147 of the *Actuarial Section* of this report.

Valuation Date:	June 30, 2015
Actuarial Cost Method:	Entry age normal
Amortization Method:	Level percentage of payroll, closed period
<b>Remaining Amortization Period:</b>	26 years
Asset Valuation Method:	Market value smoothed over 5 years
Investment Rate of Return:	8.00%
Projected Salary Increases:	Service-related rates ranging from 10.25% (one year of service) to 3.25% (17 or more years of service), including inflation
Inflation Rate:	2.75%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2010 valuation pursuant to an experience study of the period 2004-2008.
Healthy Post-Retirement Mortality:	RP-2000 annuitant generational mortality tables, projected with mortality improvement scale AA with a white collar adjustment
Post-Retirement Benefit Increases:	2.0% per year through 2035, 2.5% beginning January 1, 2036

(2) Assume equal to actual member contributions divided by employee contribution rate

#### **State Patrol Retirement Fund**

Fiscal Year Ended June 30	Actuarially Determined Contribution (1) a	Contributions Recognized by Plan in Relation to the Actuarially Determined Contribution b	Contribution Deficiency (Sufficiency) c=a-b	Covered- Employee Payroll d	Contributions as a Percentage of Covered- Employee Payroll e=b/d
2006	\$6,741	\$7,055	\$(314)	\$57,765	12.21%
2007	11,427	7,461	3,966	61,498	12.13
2008	12,355	8,279	4,076	60,029	13.79
2009	14,999	9,178	5,821	61,511	14.92
2010	17,410	10,104	7,306	63,250	15.97
2011	14,826	9,873	4,953	63,250	15.61
2012	14,912	11,620	3,292	62,524 (2)	18.58
2013	18,711	11,482	7,229	62,121 (2)	18.48
2014	18,444	12,894 (3)	5,550	63,952 (2)	20.16
2015	20,648	14,763 (3)	5,885	68,463 (2)	21.56

#### Notes to Schedule

(1) The Actuarially Determined Contribution is calculated as of July 1 each year using the actuarial methods and assumptions listed below. For additional actuarial assumptions, please refer to pages 134-147 of the *Actuarial Section* of this report.

Valuation Date:	June 30, 2015
Actuarial Cost Method:	Entry age normal
Amortization Method:	Level percentage of payroll, closed period
<b>Remaining Amortization Period:</b>	22 years
Asset Valuation Method:	Market value smoothed over 5 years
Investment Rate of Return:	8.00%
Projected Salary Increases:	Service-related rates ranging from 7.75% (one year of service) to 3.75% (21 or more years of service), including inflation
Inflation Rate:	2.75%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2012 valuation pursuant to an experience study of the period 2006-2011.
Healthy Post-Retirement Mortality:	RP-2000 annuitant generational mortality tables, projected with mortality improvement scale AA with a white collar adjustment, set back 2 years for males and set forward 1 year for females
Post-Retirement Benefit Increases:	1.0% per year through 2031, 1.5% from January 1, 2032 through 2052; 2.5% beginning January 1, 2053.

(2) Assume equal to actual member contributions divided by employee contribution rate

(3) Includes supplemental state aid of \$1,000

### **Required Supplementary Information** Schedule of Employer Contributions

For the Last Ten Fiscal Years (Dollars in thousands)

#### **Correctional Employees Retirement Fund**

Fiscal Year Ended June 30	Actuarially Determined Contribution (1) a	Contributions Recognized by Plan in Relation to the Actuarially Determined Contribution b	Contribution Deficiency (Sufficiency) c=a-b	Covered- Employee Payroll d	Contributions as a Percentage of Covered- Employee Payroll e=b/d
2006	\$16,871	\$12,152	\$4,719	\$145,879	8.33%
2007	29,115	13,927	15,188	167,727	8.30
2008	34,734	18,623	16,111	194,391	9.58
2009	31,738	20,126	11,612	193,445	10.40
2010	32,557	21,988	10,569	192,450	11.43
2011	33,274	23,892	9,382	197,702	12.08
2012	34,806	24,188	10,618	200,035 (2)	12.09
2013	34,060	24,632	9,428	204,198 (2)	12.06
2014	38,390	26,468	11,922	219,244 (2)	12.07
2015	40,109	29,480	10,629	231,440 (2)	12.74

#### Notes to Schedule

(1) The Actuarially Determined Contribution is calculated as of July 1 each year using the actuarial methods and assumptions listed below. For additional actuarial assumptions, please refer to pages 134-147 of the *Actuarial Section* of this report.

Valuation Date:	June 30, 2015
Actuarial Cost Method:	Entry age normal
Amortization Method:	Level percentage of payroll, closed period
<b>Remaining Amortization Period:</b>	23 years
Asset Valuation Method:	Market value smoothed over 5 years
Investment Rate of Return:	8.00%
Projected Salary Increases:	Service-related rates ranging from 5.75% (one year of service) to 3.50% (19 or more years of service), including inflation
Inflation Rate:	2.75%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2012 valuation pursuant to an experience study of the period 2006-2011.
Healthy Post-Retirement Mortality:	RP-2000 annuitant generational mortality tables, projected with mortality improvement scale AA with a white collar adjustment set forward 1 year for males and set back 1 year for females
Post-Retirement Benefit Increases:	2.0% indefinitely

(2) Assume equal to actual member contributions divided by employee contribution rate

#### Judges Retirement Fund

Fiscal Year Ended June 30	Actuarially Determined Contribution (1) a	Contributions Recognized by Plan in Relation to the Actuarially Determined Contribution b	Contribution Deficiency (Sufficiency) c=a-b	Covered- Employee Payroll d	Contributions as a Percentage of Covered- Employee Payroll e=b/d
2006	\$7,779	\$7,336	\$443	\$36,529	20.08%
2007	8,331	7,572	759	36,195	20.92
2008	10,045	7,936	2,109	38,296	20.72
2009	8,985	8,219	766	39,444	20.84
2010	9,400	8,283	1,117	39,291	21.08
2011	9,804	8,297	1,507	40,473	20.50
2012	9,879	7,922	1,957	38,644 (2)	20.50
2013	13,524	8,177	5,347	39,888 (2)	20.50
2014	14,193	9,426	4,767	41,893 (2)	22.50
2015	14,298	9,776	4,522	43,449 (2)	22.50

#### Notes to Schedule

(1) The Actuarially Determined Contribution is calculated as of July 1 each year using the actuarial methods and assumptions listed below. For additional actuarial assumptions, please refer to pages 134-147 of the *Actuarial Section* of this report.

Valuation Date:	June 30, 2015
Actuarial Cost Method:	Entry age normal
Amortization Method:	Level percentage of payroll, closed period
<b>Remaining Amortization Period:</b>	24 years
Asset Valuation Method:	Market value smoothed over 5 years
Investment Rate of Return:	8.00%
Projected Salary Increases:	2.75%
Inflation Rate:	2.75%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2012 valuation pursuant to an experience study of the period 2007-2011.
Healthy Post-Retirement Mortality:	RP-2000 annuitant generational mortality tables, projected with mortality improvement scale AA with a white collar adjustment, set back 1 year for males and set back 2 years for females
Post-Retirement Benefit Increases:	1.75% indefinitely

(2) Assume equal to actual employer contributions divided by employer contribution rate

### **Required Supplementary Information** Schedule of Employer Contributions

For the Last Ten Fiscal Years (Dollars in thousands)

#### Legislators Retirement Fund*

Fiscal Year Ended June 30	Actuarially Determined Contribution (1) a	Contributions Recognized by Plan in Relation to the Actuarially Determined Contribution (2) b	Contribution Deficiency (Sufficiency) c=a-b	Covered- Employee Payroll d	Contributions as a Percentage of Covered- Employee Payroll e=b/d
2006	\$2,995	\$5,684	\$(2,689)	\$2,894	196.41%
2007	2,408	1,772	636	2,380	74.45
2008	3,230	2,217	1,013	1,993	111.24
2009	4,526	1,269	3,257	1,963	64.65
2010	7,582	1,975	5,607	1,877	105.22
2011	7,520	2,805	4,715	1,774	158.12
2012	18,079	3,935	14,144	1,378 (3)	285.56
2013	16,411	3,399	13,012	1,233 (3)	275.67
2014	22,157	3,436	18,721	1,122 (3)	306.24
2015	38,736	3,216	35,520	1,700 (3)	189.18

#### Notes to Schedule

(1) The Actuarially Determined Contribution is calculated as of July 1 each year using the actuarial methods and assumptions listed below. For additional actuarial assumptions, please refer to pages 134-147 of the *Actuarial Section* of this report.

Valuation Date:	June 30, 2015
Actuarial Cost Method:	Entry age normal
Amortization Method:	Level dollar, closed period
<b>Remaining Amortization Period:</b>	11 years
Asset Valuation Method:	Market value of assets
Investment Rate of Return:	0.0%
Projected Salary Increases:	5.0% including inflation
Inflation Rate:	2.75%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2012 valuation pursuant to an experience study.
Mortality Rates:	RP-2000 annuitant generational mortality tables, projected with mortality improvement scale AA with a white collar adjustment
Benefit Increases Post Retirement:	2.0% per year through 2035, 2.5% thereafter, based on State Employees Retirement Fund results

(2) Contributions to the Legislators Retirement Fund include appropriations from the State's General Fund. The State of Minnesota is the employer for this Retirement Fund.

(3) Assume equal to actual member contributions divided by employee contribution rate. Actual member contributions in fiscal year 2015 included a member repayment of a prior year employee contribution refund.

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for cost-savings purposes. The 2014 and 2015 figures in the schedule above represent the combined totals for both funds.

Fiscal Year Ended June 30	Actuarially Determined Contribution (1) a	Contributions Recognized by Plan in Relation to the Actuarially Determined Contribution b	Contribution Deficiency (Sufficiency) c=a-b	Covered- Employee Payroll d	Contributions as a Percentage of Covered- Employee Payroll e=b/d
2006	\$465	\$417	\$48	\$0	N/A
2007	477	427	50	0	N/A
2008	506	435	71	0	N/A
2009	558	442	116	0	N/A
2010	601	453	148	0	N/A
2011	644	460	184	0	N/A
2012	1,269	466	803	0	N/A
2013	991	470	521	0	N/A
2013	991	4/0	521	0	

#### Notes to Schedule

(1) The Actuarially Determined Contribution is calculated as of July 1 each year using the actuarial methods and assumptions in effect as of the valuation date.

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes.

### **Required Supplementary Information** Schedule of Investment Returns

For the Year Ended June 30, 2015**

#### Annual Money-Weighted Rate of Return (Net of Investment Expense)

State Correctional **Fiscal Year** Employees State Patrol Employees Judges Legislators 2014 18.674% 18.688% 18.623% 18.658% 19.302% 2015 4.451 4.457 4.440 4.451 5.002

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

### Schedule of Administrative Expenses Supplementary Information

### For the Fiscal Year Ended June 30, 2015 (Dollars in thousands)

Personnel Services	
Staff Salaries	\$6,342
Health Insurance	1,397
Social Security and Medicare	510
Retirement	400
Other Personnel Services	83
Total	\$8,732
Communication-Related Expenses	
Printing	\$421
Postage	331
Telephone	157
Subscriptions and Memberships	21
Total	\$930
Office Building and Maintenance Expenses	
Building Services	\$346
Building and Building Improvement Depreciation	219
Office Space Rentals	136
Bond Interest and Issuance Expense	82
Other Building and Maintenance Expenses	8
Total	\$791
Professional Services	
Data Processing	\$1,450
Actuarial	314
Web Redesign	195
Disability Examinations	117
Project Management	98
Leadership Training	93
Application Development Testing	92
Legal Counsel	80
Technical Writing Services	75
Technical Assistance - System Migration Project	57
Network Penetration Testing	43
Graphic Design Services	25
Annual Financial Report Desktop Publishing Support	20
Other Professional Services	282

iscellaneous	\$844
Equipment Depreciation and Software Amortization	1
Computer Components and Supplies	288
Statewide Indirect Costs	262
Equipment Repairs and Maintenance Expenses	171
Travel	153
Office Supplies	106
Training and Licenses	75
State and Local Sales Taxes	62
Other Rentals	7
Department Head and Board Member Expenses	4
Other Expenses	1
Total	\$1,973
tal Administrative Expenses	\$15,367

Allocation of Administrative Expenses by Retirement Fund	
State Employees	\$8,719
State Patrol	170
Correctional Employees	720
Judges	60
Legislators	37
Unclassified Employees	125
Health Care Savings	2,048
Minnesota Deferred Compensation	3,463
Hennepin County Supplemental	25
Total Administrative Expenses	\$15,367

### MSRS 2015 Comprehensive Annual Financial Report - Financial Section

107

# Summary Schedule of Commissions and Payments to Consultants

Supplementary Information For the Fiscal Year Ended June 30, 2015 (Dollars in thousands)

Individual or Firm Name	Services Received	Fees Paid
CSC Consulting	Application Development Support	\$4,400
Gabriel Roeder Smith & Company	Actuarial Services	314
Perficient	Web Redesign	195
Managed Medical Review Organization (MMRO)	Medical and Disability Evaluations	93
Enclipse Corp	Technical Writing Services	60
Aeritae Consulting Group	Technical Assistance - System Migration Project	57
CliftonLarsonAllen	Network Penetration Testing	43
Momentum Design	Annual Financial Report Desktop	
	Publishing Support	20
Tech-Pro	Technical Writing Services	15
Examworks	Medical Evaluations	4
Stubbe & Associates	Medical Evaluations	6
State of Minnesota		
Office of Legislative Auditor	Financial Audit	168
North Highland - Coordinated through Minnesota	Project Management	98
Management & Budget's Management		
Services Division - Management Analysis		
& Development (MAD) unit		
Aeritae - Coordinated through MAD	StrengthsFinders [®] Training	93
Office of Minnesota Attorney General Lori Swanson	Legal Advice	76
MINNCOR Industries	Graphic Design Services	25
MAD	Employee Engagement Survey	21
Department of Health	Medical Evaluations	14
Office of Administrative Hearings	Legal Advice	4
MAD	Succession Planning	3

# Schedule of Investment Expenses

Supplementary Information

For the Fiscal Year Ended June 30, 2015 (Dollars in thousands)

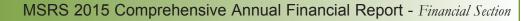
	State Employees	State Patrol	Correctional Employees	Judges	Legislators	Defined Contribution Funds	Totals
External Managers							
Domestic Equity - Active	\$5,721	\$329	\$443	\$86	\$3	\$246	\$6,828
International Equity	4,903	282	379	74	2	201	5,841
Domestic Equity - Semi-Passive	2,055	118	159	31	1	88	2,452
Domestic Equity - Passive	171	10	13	3	0	34	231
Fixed Income	0	0	0	0	0	3,776	3,776
Domestic Bond	2,501	144	193	38	1	158	3,035
Other Investment Expenses							
MN State Board of Investment	679	39	53	10	0	86	867
Pension Consulting Alliance	7	0	1	0	0	0	8
Callan Investment	87	5	7	1	0	0	100
QED Financial Systems	59	3	5	1	0	0	68
Total Investment Expenses	\$16,183	\$930	\$1,253	\$244	\$7	\$4,589	\$23,206

MSRS does not directly pay any investment fees or commissions. All investment expenses are paid by the Minnesota State Board of Investment. These are the prorata portions of the expenses charged to the investment pools in which MSRS participates.

# GASB Statement No. 68 Supplemental Employer Schedules

The schedules that follow on pages 111-115 are provided for financial reporting purposes for the employer units of the defined benefit plans of MSRS.

GASB Statement No. 68 Supplemental Employer Schedules



# **Schedule of Employer Allocations**

As of the Measurement Date of June 30, 2015 *Unaudited* 

### State Employees Retirement Fund

Employer	2015 Employer Contributions	Employer Allocation Percentage
State of Minnesota and Select Component Units*	\$109,191,682	74.639%
Other State of Minnesota Component Units*:		
University of Minnesota	22,565,295	15.424
Metropolitan Council	13,340,329	9.119
Minnesota Sports Facilities Authority	47,960	0.033
Total State of Minnesota and its Component Units	\$145,145,266	99.215%
Minnesota Historical Society	314,363	0.215
Minnesota State Fair	299,994	0.205
Gillette Children's Hospital	185,252	0.127
Minnesota Association of Professional Employees (MAPE)	94,041	0.064
Minnesota Safety Council	68,310	0.047
Veolia Environment North America	54,785	0.037
Minnesota Crop Improvement Association	36,855	0.025
Amalgamated Transit Union	28,018	0.019
American Federation of State, County and Municipal Employees (AFSCME)	17,386	0.012
Middle Management Association (MMA)	16,369	0.011
Minnesota State Horticultural Society	15,835	0.011
Kandiyohi County	7,054	0.005
Minnesota Government Engineers Council (MGEC)	5,642	0.004
Enterprise Minnesota	4,738	0.003
Total	\$146,293,908	100.000%

Employers listed above are defined in Minnesota Statutes as employers participating in the State Employees Retirement Fund.

* State of Minnesota component units include the Housing Finance Agency, Metropolitan Council, University of Minnesota, Minnesota Sports Facilities Authority, Agricultural and Economic Development Board, National Sports Center Foundation, Office of Higher Education, Public Facilities Authority, Rural Finance Authority, and the Workers' Compensation Assigned Risk Plan. Component units that submit contributions to MSRS separately from the state payroll are displayed individually in this schedule. The remaining component units are included in the line specified for the State of Minnesota.

### **Correctional Employees Retirement Fund**

Employer	2015 Employer Contributions	Employer Allocation Percentage
State of Minnesota	\$29,436,112	99.864%
AFSCME	40,022	0.136
Total	\$29,476,134	100.000%

Additional information regarding the GASB Statement No. 68 standards may be found in the Notes to the Financial Statements.

MSRS 2015 Comprehensive Annual Financial Report - Financial Section

# Schedule of Pension Amounts by Employer

As of and For the Year Ended June 30, 2015 *Unaudited* 

Deferred	Outflows	of	Resources*

State Employees Retirement Fund Employer	Net Pension Liability	Differences Between Expected and Actual Experience in the Measure- ment of the Total Pension Liability	Changes of Assump- tions	Net Differences Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	
State of Minnesota and Select Component Units**	\$1,148,987,345	<b>\$</b> 0	<b>\$</b> 0	\$234,621,725	\$25,670,561	\$260,292,286	
Other State of Minnesota Component Units**:							
University of Minnesota	237,435,941	0	0	48,484,112	0	48,484,112	
Metropolitan Council	140,377,222	0	0	28,664,846	9,197,800	37,862,646	
Minnesota Sports Facilities Authority	507,996	0	0	103,733	73,182	176,915	
Total State of Minnesota and its Component Units	\$1,527,308,504	\$0	\$0	\$311,874,416	\$34,941,543	\$346,815,959	
Minnesota Historical Society	3,309,693	0	0	675,836	25,945	701,781	
Minnesota State Fair	3,155,756	0	0	644,400	97,586	741,986	
Gillette Children's Hospital	1,955,028	0	0	399,214	0	399,214	
MAPE	985,214	0	0	201,181	1,260,477	1,461,658	
Minnesota Safety Council	723,517	0	0	147,741	196	147,937	
Veolia Environment North America	569,573	0	0	116,308	1,049,454	1,165,762	
Minnesota Crop Improvement Association	384,847	0	0	78,585	13,191	91,776	
Amalgamated Transit Union	292,483	0	0	59,725	13,393	73,118	
AFSCME	184,724	0	0	37,720	13,191	50,911	
MMA	169,333	0	0	34,577	24,803	59,380	
Minnesota State Horticultural Society	169,333	0	0	34,577	0	34,577	
Kandiyohi County	76,968	0	0	15,716	287	16,003	
MGEC	61,575	0	0	12,572	309	12,881	
Enterprise Minnesota	46,188	0	0	9,432	24,672	34,104	
Agricultural Utilization Research Institute***	0	0	0	0	1,701	1,701	
Foster Wheeler Twin Cities***	0	0	0	0	33,395	33,395	
Total	\$1,539,392,736	\$0	\$0	\$314,342,000	\$37,500,143	\$351,842,143	

* Deferred Outflows of Resources figures and Deferred Inflows of Resources figures represent balances at June 30, 2015, not the activity during fiscal year 2015.

** Refer to page 111 for details regarding State of Minnesota component units.

*** Not an active employer on June 30, 2015, therefore not allocated a percentage of the Net Pension Liability.

Pension Expense (Income)

						1 (	,
Differences Between Expected and Actual Experience in the Measure- ment of the Total Pension Liability	Changes of Assump- tions	Plan	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense
¢214.050.047	¢<<< 571 000	\$467,271,744	\$0	¢1 427 000 011	¢(072 200 270)	\$7,944,505	
\$314,059,047 65,090,892	\$656,571,220 142,096,218	101,127,716	<b>34,155,17</b> 0	\$1,437,902,011 342,469,996	\$(273,380,372) (60,218,597)	(10,728,520)	\$(265,435,867) (70,947,117)
38,362,992	79,978,428	56,919,429	5,360	175,266,209	(33,262,024)	2,960,618	(30,301,406)
					,		. ,
143,677	452,057	321,721	233,846	1,151,301	(214,775)	(34,075)	(248,850)
\$417,656,608	\$879,097,923	\$625,640,610	\$34,394,376	\$1,956,789,517	\$(367,075,768)	\$142,528	\$(366,933,240)
904,560	1,887,998	1,343,660	512,621	4,648,839	(785,579)	(164,372)	(949,951)
863,518	1,834,814	1,305,809	26,268	4,030,409	(769,143)	25,934	(743,209)
543,875	1,435,943	1,021,939	991,287	3,993,044	(650,209)	(292,553)	(942,762)
268,101	522,967	372,187	369	1,163,624	(211,183)	414,606	203,423
198,119	425,465	302,796	62,133	988,513	(179,126)	(19,533)	(198,659)
157,346	381,146	271,255	106,668	916,415	(167,836)	320,705	152,869
104,979	212,732	151,398	391	469,500	(87,398)	3,167	(84,231)
79,720	159,549	113,550	48,789	401,608	(65,188)	(12,894)	(78,082)
50,254	97,503	69,390	139	217,286	(39,276)	3,280	(35,996)
46,306	97,503	69,390	0	213,199	(40,719)	8,249	(32,470)
46,306	97,503	69,390	255	213,454	(40,719)	(67)	(40,786)
· · · · · · · · · · · · · · · · · · ·		<i>.</i>					
21,048	44,319	31,542	210	97,119	(18,509)	43	(18,466)
	44,319 35,454		210 169	97,119 77,696	(18,509) (14,807)	43 61	
21,048		31,542			. ,		(18,466)
21,048 16,840	35,454	31,542 25,233	169	77,696	(14,807)	61	(18,466) (14,746)
21,048 16,840 12,892	35,454 35,454	31,542 25,233 25,233	169 13,085 26,108	77,696 86,664	(14,807) (16,249)	61 4,921	(18,466) (14,746) (11,328)

Refer to page 95-99 of Required Supplementary Information for details of actuarial assumption changes.

MSRS 2015 Comprehensive Annual Financial Report - Financial Section

# Schedule of Pension Amounts by Employer

As of and For the Year Ended June 30, 2015 *Unandited* 

			Deferre	d Outflows of	Resources*	
Employer	Net Pension Liability	Differences Between Expected and Actual Experience in the Measure- ment of the Total Pension Liability	Changes of Assump- tions	Net Differences Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
State Dates 1 Dations and East						
State Patrol Retirement Fund						
State of Minnesota**	\$173,705,420	\$0	\$20,038,000	\$18,051,000	\$0	\$38,089,000
<b>Correctional Employees</b> <b>Retirement Fund</b> State of Minnesota AFSCME	\$653,352,453 889,771	\$8,650,522 12,878	\$98,531,814 134,186	\$24,286,924 33,076	\$249,537 4,429	\$131,718,797 184,569
MAPE***	0	600	0	0	99,068	99,668
Total	\$654,242,224	\$8,664,000	\$98,666,000	¢04 200 000	****	
		+0,001,000	\$90,000,000	\$24,320,000	\$353,034	\$132,003,034
Judges Retirement Fund	\$236 392 056					
<b>Judges Retirement Fund</b> State of Minnesota	\$236,392,056		\$17,357,000		\$353,034	\$132,003,034 \$25,172,000
	\$236,392,056 \$140,922,630					

* Deferred Outflows of Resources figures and Deferred Inflows of Resources figures represent balances at June 30, 2015, not the activity during fiscal year 2015.

** No component units of the State of Minnesota participate in the plans listed on this page.

*** Not an active employer on June 30, 2015, therefore not allocated a percentage of the Net Pension Liability.

Refer to page 95-99 of Required Supplementary Information for details of actuarial assumption changes.

114

	Deferred	l Inflows of R	esources*		Pensio	on Expense (Inco	ome)
Differences Between Expected and Actual Experience in the Measure- ment of the Total Pension Liability	Changes of Assump- tions	Investment Earnings on Pension Plan	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense
\$14,559,000	\$0	\$36,978,000	\$0	\$51,537,000	\$13,518,000	\$0	\$13,518,000
\$0	<b>\$</b> 97 <b>,</b> 850 <b>,</b> 870	\$47,185,387	\$103,418	\$145,139,675	\$38,862,653	\$24,325	\$38,886,978
0	172,558	83,212	158,836	414,606	37,057	(30,660)	6,397
0	21,572	10,401	90,780	122,753	(8,710)	6,335	(2,375)
\$0	\$98,045,000	\$47,279,000	\$353,034	\$145,677,034	\$38,891,000	\$0	\$38,891,000
\$3,493,000	\$5,050,000	\$9,628,000	\$0	\$18,171,000	\$17,706,000	\$0	\$17,706,000
\$0	\$0	\$623,000	\$0	\$623,000	\$5,554,000	\$0	\$5,554,000

This page is intentionally left blank.

# Investment Section

# MSRS 2015 Comprehensive Annual Financial Report

*formance* Responding to a Changing Environment

# **Investment Report**

MINNESOTA STATE BOARD OF INVESTMENT



#### **Board Members**

Governor Mark Dayton

State Auditor Rebecca Otto

Secretary of State Steve Simon

Attorney General Lori Swanson

Executive Director & Chief Investment Officer

**Mansco Perry** 

60 Empire Drive Suite 355 St. Paul, MN 55103 (651) 296-3328 FAX (651) 296-9572 E-mail: <u>minn.sbi@state.mn.us</u> <u>www.sbi.state.mn.us</u>

An Equal Opportunity Employer

### INVESTMENT AUTHORITY

The assets of the Minnesota State Retirement System (MSRS) are invested along with the assets of the Public Employees Retirement Association and the Teachers Retirement Association under the direction and authority of the State Board of Investment (SBI) in accordance with Minnesota Statutes, Chapters 11A and 356A. The SBI includes Minnesota's governor, auditor, secretary of state and attorney general. The Legislature has established a 17-member Investment Advisory Council (IAC) to advise the SBI and its staff on investment related matters. MSRS's executive director is a member of the IAC.

#### INVESTMENT POLICY

Investment policy states that the SBI will operate within standard investment practices of the prudent person. The SBI is to "exercise that degree of judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived therefrom." (See M.S., section 11A.09.) The SBI is authorized to own government obligations, corporate obligations, various short-term obligations, corporate stocks, venture capital interests, resource investments, and real estate interests subject to specific constraints. (See M.S., section 11A.24.) In particular, pension fund assets are to be invested for the exclusive benefit of the members of the fund.

#### INVESTMENT OBJECTIVES AND PERFORMANCE

MSRS's pension contributions from employees and employers are invested in the Combined Funds. The Combined Funds include the assets of active and retired public employees who participate in the defined benefit plans administered by MSRS, the Minnesota Teachers Retirement Association, and the Public Employees Retirement Association. MSRS does not own any underlying assets, but instead owns a participation in the pooled Combined Funds. Because these assets normally accumulate for thirty to forty years, SBI's objective is to take advantage of the long investment time horizon offered by equities and alternative assets in order to meet its actuarial return target and ensure that sufficient funds are available to finance promised benefits at the time of retirement. The 2015 legislature reduced the interest rate actuarial assumption for MSRS to a single rate of 8%. The long term objectives of the Combined Funds are:

- Provide returns that are 3-5 percentage points greater than inflation over the latest 20-year period; and
- Outperform a composite market index weighted in a manner that reflects the actual asset mix of the Combined Funds over the latest 10-year period.

Consistent with these objectives, the SBI maintains a long-term asset allocation for the Combined Funds as follows:

Domestic Equity	45%
International Equity	15%
<ul> <li>Alternatives</li> </ul>	20%
Fixed Income	18%
• Cash	2%

Based on values on June 30, 2015, the Combined Funds returned 6.1 percentage points above the CPI over the last 20 years and returned 0.3 percentage point above the composite index over the past 10 years. Investment returns ranked in the 6th percentile over the past five years and in the 14th percentile over the past 10 years, compared to similar funds in the Trust Universe Comparison Service.

#### INVESTMENT PRESENTATION

Investment returns were prepared using time-weighted rate of return methodology based upon fair market value, net of investment expenses.

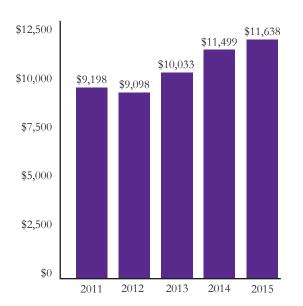
Respectfully submitted,

Manseo lenny It

Mansco Perry III Executive Director Minnesota State Board of Investment

# Fair Value of Net Assets

Four Largest MSRS Defined Benefit Retirement Funds As of June 30, 2015 (Dollars in millions)



#### State Employees Retirement Fund



#### **Correctional Employees Retirement Fund**

State Patrol Retirement Fund



#### Judges Retirement Fund



# **Investment Returns by Sector**

Investment Performance Compared to Target Indices (Net of Fees)

		Rates of Return	n (Annualized)	
Funds	FY 2015	Three-Year	Five-Year	Ten-Year
Domestic Stock Pool Russell 3000 Index	7.7% 7.3	18.2% 17.7	17.8% 17.5	8.1% 8.2
<mark>Bond Pool</mark> Barclays Capital Aggregate Bond Index	2.1% 1.9	2.6% 1.8	4.2% 3.3	4.8% 4.4
International Stock Pool MSCI ACWI Free ex U.S. (Net)	(3.8)% (5.3)	10.7% 9.4	8.4% 7.8	6.1% 5.6
Alternative Investments Inflation (Note: This is the target rate of return; there is no comparable index available.)	7.6% 0.1	12.5% 1.3	13.1% 1.8	13.6% 2.1
<b>Real Estate Investments Pool (Equity emphasis)</b> Inflation +5% (Note: This is the target rate of return over the life of the investment; there is no comparable index available.)	19.5% 5.1	15.3% 6.3	14.8% 6.8	7.5% 7.1
Private Equity Investments Pool (Equity emphasis) Inflation +10% (Note: This is the target rate of return over the life of the investment; there is no comparable index available.)	11.9% 10.1	15.0% 11.3	14.5% 11.8	14.4% 12.1
<b>Resource Investments Pool (Equity emphasis)</b> Inflation +5% (Note: This is the target rate of return over the life of the investment; there is no comparable index available.)	(7.8)% 5.1	2.6% 6.3	8.4% 6.8	18.1% 7.1
Yield Oriented Investments Pool (Debt emphasis) Inflation +5.5% (Note: This is the target rate of return over the life of the investment; there is no comparable index available.)	2.8% 5.6	12.8% 6.8	12.9% 7.3	16.3% 7.6

Investment return percentages are the time-weighted rate of return, net of all management fees.

# **Asset Allocation**

Asset allocation can have a significant effect on investment returns. To achieve the best results, investment allocations are periodically reviewed and adjusted to reflect changing market conditions and revised investment objectives.

	Combined Funds			
Investment Type	Actual Asset Mix 06/30/2015	Long-Term Policy Target		
Domestic Stocks	47.3%	45.0%		
International Stocks	14.9	15.0		
Bonds	23.6	18.0		
Alternative Investments*	12.3	20.0		
Cash	1.9	2.0		
Totals	100.0%	100.0%		

*Alternative investments are real estate, venture capital and resource funds. Uninvested allocations are held in bonds.

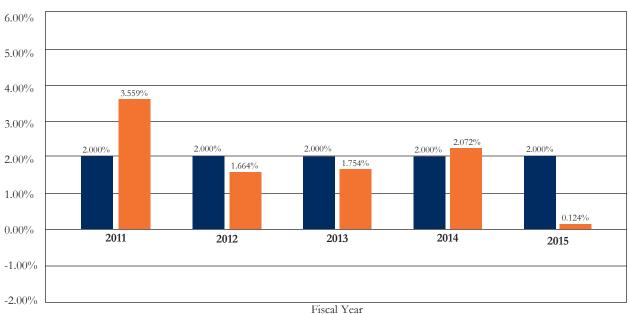
# **Investment Results** Benefit Increases vs. Inflation (Last Five Years)

Annual post-retirement benefit increases awarded to MSRS retirees have been greater than inflation during three of the past five years: 2012, 2013, and 2015. Benefit increases and inflation are measured as of June 30. Benefit increases are effective January 1 of the following year.



Annual Increase Rate for State Employees

Inflation Rate, based on Consumer Price Index (CPI) for all Urban Consumers



As a sustainability measure, post-retirement benefit increases are set at 2% for all defined benefit plans, except State Patrol Retirement Fund, which is set at 1%, and Judges Retirement Fund, which is set at 1.75%. These limits will remain in effect until designated funding thresholds are achieved.

# **Investment Results by Investment Pool**

#### **Investment Performance**

	Rates of Return (Annualized)			
Funds	FY2015	Three-Year	<b>Five-Year</b>	Ten-Year
Combined Funds	4.4%	12.2%	12.3%	7.8%
Combined Composite Market Index	4.0	11.5	11.8	7.5
Notes:				

1. Investment return percentages are the time-weighted rate of return, net of all management fees.

2. The composite index is composed of the market indicators listed below, weighted according to asset allocation.

Investment Type	Market Indicator
Domestic Stocks	Russell 3000
International Stocks	Morgan Stanley Capital International All Country World Index Ex-U.S.
Domestic Bonds	Barclays Capital Aggregate Bond Index
Alternative Investments	Alternative investments are measured against themselves using actual portfolio returns
Unallocated cash	3-Month Treasury Bills

# List of Largest Assets Held at Fair Value

As of June 30, 2015 (Dollars in thousands)

Composite of Top Ten Equity Holdings				
Company	Fair Value	Percent of Portfolio		
Apple, Inc.	\$188,055	1.18%		
Exxon Mobil Corporation	87,764	0.55		
Wells Fargo & Company	80,179	0.50		
Microsoft Corporation	78,864	0.49		
Johnson & Johnson	78,469	0.49		
JP Morgan Chase & Co.	69,622	0.44		
Pfizer, Inc.	67,161	0.42		
Facebook, Inc.	63,057	0.40		
Visa Inc. Class A Shares	57,722	0.36		
Walt Disney Co.	56,845	0.36		

Coupon	Maturity		Percent of
Rate	Date	Fair Value	Portfolio
3.500%	07/14/2045	\$73,212	0.46%
4.000	07/14/2045	56,569	0.35
3.500	07/20/2045	40,558	0.25
2.125	06/30/2022	38,754	0.24
0.625	05/31/2017	37,681	0.24
1.500	01/31/2019	35,435	0.22
1.625	12/31/2019	34,482	0.22
3.500	08/13/2045	31,175	0.20
3.000	05/15/2045	30,543	0.19
3.000	07/16/2030	27,032	0.17
	Rate           3.500%           4.000           3.500           2.125           0.625           1.500           1.625           3.500           3.000	Rate         Date           3.500%         07/14/2045           4.000         07/14/2045           3.500         07/20/2045           2.125         06/30/2022           0.625         05/31/2017           1.500         01/31/2019           1.625         12/31/2019           3.500         08/13/2045           3.000         05/15/2045	RateDateFair Value $3.500\%$ $07/14/2045$ \$73,212 $4.000$ $07/14/2045$ $56,569$ $3.500$ $07/20/2045$ $40,558$ $2.125$ $06/30/2022$ $38,754$ $0.625$ $05/31/2017$ $37,681$ $1.500$ $01/31/2019$ $35,435$ $1.625$ $12/31/2019$ $34,482$ $3.500$ $08/13/2045$ $31,175$ $3.000$ $05/15/2045$ $30,543$

MSRS assets are commingled in various pooled investment accounts administered by the Minnesota State Board of Investment (SBI). MSRS does not own specific values of the underlying assets. The percentages and fair value shown are those attributable to the MSRS funds based on MSRS's participation in the pools. Information on the SBI investment activity and a listing of specific investments held by the various investment pools is available from the SBI.

MSRS 2015 Comprehensive Annual Financial Report - Investment Section

# Investment Results by Defined Contribution Investment Options

International Share Account         5.1%         11.6%         12.1%           Growth Share Account         7.9         18.5         18.0           Common Stock Index Account         7.3         17.7         17.5           International Share Account         (3.8)         10.7         8.4           Bond Market Account         2.1         2.6         4.2           Money Market Account         1.9         2.1         2.6           Deferred Compensation Plan Accounts         Image: Compensation Plan Accounts         Image: Compensation Plan Accounts           Large Cap Equity         7.4%         17.3%         17.3%           Yanguard Institutional Index Plus (passive)         7.4%         17.3%         17.3%           Janus Twenty (active)         7.8         16.4         14.8           Mid Cap Equity         Image: Compensation Plan Accounts         Image: Compensation Plan Accounts         Image: Compensation Plan Accounts           Vanguard Institutional Index Plus (passive)         7.4%         17.3%         17.3%           Anguard Institutional Index Plus (passive)         8.7%         19.7%         18.3%           Small Cap Equity         Image: Compensation Plan Accounts         Image: Compensation Plan Accounts         Image: Compensation Plan Accounts           I		Rates of Return (Annualized)		
Income Share Account         5.1%         11.6%         12.1%           Growth Share Account         7.9         18.5         18.0           Common Stock Index Account         7.3         17.7         17.5           International Share Account         (3.8)         10.7         8.4           Bond Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9         2.1         2.6           Deferred Compensation Plan Accounts           Large Cap Equity           Vanguard Institutional Index Plus (passive)         7.4%         17.3%         17.3%           Janus Twenty (active)         7.8         16.4         14.8           Mid Cap Equity           Vanguard Institutional Index (passive)         8.7%         19.7%         18.3%           Small Cap (active)         7.5%         17.4%         14.8           Mid Cap Equity           Yanguard Total International (active)         2.1%         14.1%         11.4%           Vanguard Total International (active)         2.1%         14.1%         11.4%           Vanguard Total International Stock Index (passive)         1.7         1.7         3.3           Vanguard		FY 2015	Three-Year	Five-Year*
Growth Share Account7.918.518.0Common Stock Index Account7.317.717.5International Share Account(3.8)10.78.4Bond Market Account2.12.64.2Money Market Account1.92.12.6Erized Interest Account1.92.12.6Deferred Compensation Plan AccountsLarge Cap EquityVanguard Institutional Index Plus (passive)7.4%17.3%17.3%Janus Twenty (active)7.816.414.8Mid Cap EquityVanguard Indic (passive)7.816.414.8Mid Cap EquityTreater Structure StructureVanguard Indic (passive)7.819.7%18.3%Small Cap EquityVanguard Indic (passive)5.7%17.4%18.8%Small Cap EquityTreater Structure Structure StructureVanguard Total International (active)2.1%14.1%Vanguard Total International (active)2.1%14.1%Vanguard Total International (conse)5.1%11.1%11.9%Vanguard Total International (conse)1.0%3.2%4.3%Vanguard Total Bond Market Index (passive)1.1%1.4%Vanguard Total Bond Market Index (passive)1.0%3.2%4.3%Vanguard Total Bond Market Index (passive)1.0%3.2%4.3	Supplemental Investment Fund Accounts**			
Common Stock Index Account7.317.717.5International Share Account(3.8)10.78.4Bond Market Account2.12.64.2Money Market Account0.10.20.2Fixed Interest Account1.92.12.6Deferred Compensation Plan AccountsLarge Cap EquityVanguard Institutional Index Plus (passive)7.4%17.3%17.3%Mid Cap Equity7.816.414.88Mid Cap Equity8.7%19.7%18.3%Small Cap Equity8.7%19.7%18.3%Small Cap Equity8.7%19.7%18.3%Small Cap Equity8.7%17.4%18.8%International Equity8.7%17.4%18.8%International Equity9.9N/AVanguard Institutional (active)2.1%11.4%11.9%Vanguard International Stock Index (passive)2.1%11.1%11.9%Fixed International Stock Index (passive)5.1%11.1%11.9%Fixed International Stock Index (passive)1.71.73.3Money Market Account0.10.20.20.2Exercited International Stock Index (passive)1.9%2.1%2.6%Manguard Ibalanced Index (passive)1.71.73.33Money Market Account0.10.20.20.2Exercite International Stock Index (passive)1.7%1.7%3.3Money Market Account0.10.20.2 </td <td>Income Share Account</td> <td>5.1%</td> <td>11.6%</td> <td>12.1%</td>	Income Share Account	5.1%	11.6%	12.1%
International Share Account(3.8)10.78.4Bond Market Account2.12.64.2Money Market Account0.10.20.2Fixed Interest Account1.92.12.6Deferred Compensation Plan AccountsDeferred Compensation Plan AccountsLarge Cap EquityVarguard Institutional Index Plus (passive)7.4%17.3%17.3%Janus Twenty (active)7.4%17.3%17.3%Yanguard Mid Cap Index (passive)7.4%18.7%18.8%Small Cap EquityVarguard Mid Cap Index (passive)8.7%19.7%18.8%Small Cap EquityYanguard Mid Cap Index (passive)5.7%17.4%18.8%International Cactive)2.1%2.1%11.4%Varguard International (active)2.1%1.1%11.9%Varguard International Stock Index (passive)5.1%11.1%11.9%Fied International Stock Index (passive)1.71.73.3Money Market Account1.0%3.2%4.3%Varguard International Market Index (passive)1.0%3.2%4.3%Varguard Internet Account1.9%2.1%2.6%M Target Retirement AccountsI1.0%3.2%4.3%Money Market Account0.16.9N/A2020 Fund0.16.9N/A2025 Fund0.61.4	Growth Share Account	7.9	18.5	18.0
Bond Market Account         2.1         2.6         4.2           Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9         2.1         2.6           Deferred Compensation Plan Accounts           Large Cap Equity         7.4%         7.3%         17.3%           Many Institutional Index Plus (passive)         7.4%         7.3%         16.4         14.8           Mid Cap Equity         8.7%         19.7%         18.3%         Small Cap Equity           Vanguard Mid Cap Index (passive)         8.7%         17.4%         18.8%           Small Cap Equity         7.8         16.4         14.8           Mid Cap Equity         8.7%         19.7%         18.8%           International Equity         8.7%         17.4%         18.8%           International Equity         2.1%         14.1%         11.4%           Vanguard Total International (active)         2.1%         14.1%         11.4%           Vanguard Balanced Index (passive)         5.1%         11.1%         11.9%           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2 </td <td>Common Stock Index Account</td> <td>7.3</td> <td>17.7</td> <td>17.5</td>	Common Stock Index Account	7.3	17.7	17.5
Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9         2.1         2.6           Deferred Compensation Plan Accounts           Large Cap Equity           Vanguard Institutional Index Plus (passive)         7.4%         17.3%         17.3%           Janus Twenty (active)         7.4%         17.3%         17.3%           Vanguard Ind Cap Index (passive)         8.7%         19.7%         18.3%           Small Cap Equity           11.4%         18.8%           International Equity         5.7%         17.4%         18.8%           Balanced               Steed Income               Dodge & Cox Income Fund (active)         1.0%         3.2%         .4.3%           Vanguard Total Bond Market Index (passive)	International Share Account	(3.8)	10.7	8.4
Fixed Interest Account       1.9       2.1       2.6         Deferred Compensation Plan Accounts         Large Cap Equity       7.4%       17.3%       17.3%         Yanguard Institutional Index Plus (passive)       7.4%       17.3%       17.3%         Janus Twenty (active)       7.8       16.4       14.8         Mid Cap Equity       8.7%       19.7%       18.3%         Small Cap Equity       8.7%       19.7%       18.8%         International Equity       5.7%       17.4%       18.8%         International Equity       2.1%       14.1%       11.4%         Vanguard International (active)       2.1%       14.1%       11.4%         Vanguard Total International (active)       2.1%       14.1%       11.9%         Balanced       10       0.2       0.2       0.2         Vanguard Balanced Index (passive)       1.7       1.7       3.3         Money Market Account       0.1%       3.2%       4.3%         Vanguard Total Bond Market Index (passive)       1.7       1.7       3.3         Money Market Account       0.1%       2.0%       0.2       0.2         M Target Retirement Accounts       1.6       1.1.1       N/A	Bond Market Account	2.1	2.6	4.2
Deferred Compensation Plan Accounts         Large Cap Equity         Yanguard Institutional Index Plus (passive)       7.4%       17.3%       17.3%         Janus Twenty (active)       7.8       16.4       14.8         Mid Cap Equity       7.8       16.4       14.8         Mid Cap Equity       8.7%       19.7%       18.3%         Small Cap Equity       8.7%       17.4%       18.8%         Compensational Equity       5.7%       17.4%       18.8%         Tetrnational Equity       2.1%       14.1%       11.4%         Vanguard Total International (active)       2.1%       14.1%       11.4%         Vanguard Balanced Index (passive)       6.5       9.9       N/A         Balanced       104       1.1%       1.9%         Vanguard Balanced Index (passive)       5.1%       11.1%       1.9%         Vanguard Total Bond Market Index (passive)       1.0%       3.2%       4.3%         Vanguard Total Bond Market Index (passive)       1.7       1.7       3.3         Money Market Account       0.1       0.2       0.2         Money Market Account       0.1       6.9       N/A         2020 Fund       0.8       8.9       N/A <t< td=""><td>Money Market Account</td><td>0.1</td><td>0.2</td><td>0.2</td></t<>	Money Market Account	0.1	0.2	0.2
Large Cap Equity         Vanguard Institutional Index Plus (passive)         7.4%         17.3%         17.3%           Janus Twenty (active)         7.8         16.4         14.8           Mid Cap Equity         8.7%         19.7%         18.3%           Small Cap Equity         8.7%         19.7%         18.3%           Small Cap Equity         17.4%         18.8%           International Equity         17.4%         18.8%           International Equity         14.1%         11.4%           Vanguard Total International (active)         2.1%         14.1%         11.4%           Vanguard Total International (active)         2.1%         14.1%         11.4%           Vanguard Total International Stock Index (passive)         4.5         9.9         N/A           Balanced         11.1%         11.9%         14.1%         11.9%           Vanguard Total Index (passive)         5.1%         11.1%         11.9%           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9%         2.1%         2.6%           MN Target Retirement Accounts         1.7         1.7	Fixed Interest Account	1.9	2.1	2.6
Vanguard Institutional Index Plus (passive)         7.4%         17.3%         17.3%           Janus Twenty (active)         7.8         16.4         14.8           Mid Cap Equity         8.7%         19.7%         18.3%           Small Cap Equity         5.7%         17.4%         18.8%           International Equity         5.7%         17.4%         18.8%           International Equity         5.7%         17.4%         18.8%           International Equity         11.4%         11.4%         14.4%           Vanguard Total International (active)         2.1%         14.1%         11.4%           Vanguard Balanced Index (passive)         5.1%         11.1%         11.9%           Fixed Income         10.0%         3.2%         4.3%           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9%         2.1%         2.6%           MN Target Retirement Accounts         1         1.7         1.7         3.3           Money Market Account         0.1         6.9         N/A           2020 Fund         0.8         8.9         N/A <td>Deferred Compensation Plan Accounts</td> <td></td> <td></td> <td></td>	Deferred Compensation Plan Accounts			
Janus Twenty (active)         7.8         16.4         14.8           Mid Cap Equity         8.7%         19.7%         18.3%           Small Cap Equity         8.7%         19.7%         18.3%           Small Cap Equity         5.7%         17.4%         18.8%           International Equity         5.7%         17.4%         18.8%           International Equity         2.1%         14.1%         11.4%           Vanguard Total International (active)         2.1%         14.1%         11.4%           Vanguard Total International Stock Index (passive)         (4.5)         9.9         N/A           Balanced         Vanguard Balanced Index (passive)         5.1%         11.1%         11.9%           Fixed Income         Vanguard Total Bond Market Index (passive)         1.0%         3.2%         4.3%           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2           Income Fund****         (0.1)%         4.7%         N/A           O202 Fund         0.1         6.9         N/A           O202 Fund         0.8         8.9         N/A           O203 Fund         1.6         11.1	Large Cap Equity			
Mid Cap Equity       8.7%       19.7%       18.3%         Small Cap Equity       5.7%       17.4%       18.8%         International Equity       5.7%       17.4%       18.8%         International Equity       5.7%       17.4%       18.8%         International Equity       11.4%       11.4%       11.4%         Vanguard Total International (active)       2.1%       14.1%       11.4%         Vanguard Total International Stock Index (passive)       (4.5)       9.9       N/A         Balanced       Vanguard Balanced Index (passive)       5.1%       11.1%       11.9%         Fixed Income       Vanguard Total Bond Market Index (passive)       1.7       1.7       3.3         Money Market Account       0.1       0.2       0.2         Fixed Interest Account       0.1       0.2       0.2         Money Market Account       0.1       0.2       0.2         Money Fund       0.1       0.2       0.2         Money Fund       0.1       6.9       N/A         2020 Fund       0.8       8.9       N/A         2020 Fund       0.8       8.9       N/A         2030 Fund       1.6       11.1       N/A <td< td=""><td>Vanguard Institutional Index Plus (passive)</td><td>7.4%</td><td>17.3%</td><td>17.3%</td></td<>	Vanguard Institutional Index Plus (passive)	7.4%	17.3%	17.3%
Vanguard Mid Cap Index (passive)         8.7%         19.7%         18.3%           Small Cap Equity	Janus Twenty (active)	7.8	16.4	14.8
Small Cap Equity         5.7%         17.4%         18.8%           International Equity         5.7%         17.4%         18.8%           International Equity         2.1%         14.1%         11.4%           Vanguard Total International Stock Index (passive)         (4.5)         9.9         N/A           Balanced          11.1%         11.9%           Fixed Income          11.1%         11.9%           Podge & Cox Income Fund (active)         1.0%         3.2%         4.3%           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9%         2.1%         2.6%           MN Target Retirement Accounts          1.7         3.3           Income Fund***         (0.1)%         4.7%         N/A           2020 Fund         0.8         8.9         N/A           2035 Fund         1.6         11.1         N/A           2040 Fund         1.7         11.8         N/A           2045 Fund         1.7         12.6         N/A           2055 Fund         1.7         12.6         N/A	Mid Cap Equity			
T. Rowe Price Small Cap (active)       5.7%       17.4%       18.8%         International Equity       1       14.1%       11.4%         Fidelity Diversified International (active)       2.1%       14.1%       11.4%         Vanguard Total International Stock Index (passive)       (4.5)       9.9       N/A         Balanced	Vanguard Mid Cap Index (passive)	8.7%	19.7%	18.3%
International Equity         International Celuity         14.1%         11.4%           Fidelity Diversified International (active)         2.1%         14.1%         11.4%           Vanguard Total International Stock Index (passive)         (4.5)         9.9         N/A           Balanced	Small Cap Equity			
Fidelity Diversified International (active)       2.1%       14.1%       11.4%         Vanguard Total International Stock Index (passive)       (4.5)       9.9       N/A         Balanced	T. Rowe Price Small Cap (active)	5.7%	17.4%	18.8%
Vanguard Total International Stock Index (passive)         (4.5)         9.9         N/A           Balanced         Vanguard Balanced Index (passive)         5.1%         11.1%         11.9%           Fixed Income         Vanguard Total Bond Market Index (passive)         1.0%         3.2%         4.3%           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9%         2.1%         2.6%           MN Target Retirement Accounts         100         4.7%         N/A           2020 Fund         0.1         6.9         N/A           2030 Fund         0.1         6.9         N/A           2030 Fund         0.8         8.9         N/A           2030 Fund         1.6         11.1         N/A           2040 Fund         1.7         11.8         N/A           2040 Fund         1.7         12.6         N/A           2040 Fund         1.7         12.6         N/A           2040 Fund         1.7         12.6         N/A           2050 Fund         1.7         12.6         N/A	International Equity			
Balanced         Number of the second se	Fidelity Diversified International (active)	2.1%	14.1%	11.4%
Vanguard Balanced Index (passive)         5.1%         11.1%         11.9%           Fixed Income         1.0%         3.2%         4.3%           Dodge & Cox Income Fund (active)         1.0%         3.2%         4.3%           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9%         2.1%         2.6%           MN Target Retirement Accounts         1.9%         4.7%         N/A           2020 Fund         0.1         6.9         N/A           2025 Fund         0.8         8.9         N/A           2030 Fund         1.6         11.1         N/A           2040 Fund         1.7         11.8         N/A           2045 Fund         1.7         12.5         N/A           2045 Fund         1.7         12.6         N/A           2050 Fund         1.7         12.6         N/A	Vanguard Total International Stock Index (passive)	(4.5)	9.9	N/A
Fixed Income         1.0%         3.2%         4.3%           Dodge & Cox Income Fund (active)         1.7         1.7         3.3           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9%         2.1%         2.6%           MN Target Retirement Accounts         1.9%         4.7%         N/A           2020 Fund         0.1         6.9         N/A           2020 Fund         0.1         6.9         N/A           2025 Fund         0.8         8.9         N/A           2030 Fund         1.6         11.1         N/A           2035 Fund         1.6         11.1         N/A           2040 Fund         1.7         11.8         N/A           2040 Fund         1.7         12.5         N/A           2040 Fund         1.7         12.6         N/A           2050 Fund         1.7         12.6         N/A	Balanced			
Dodge & Cox Income Fund (active)         1.0%         3.2%         4.3%           Vanguard Total Bond Market Index (passive)         1.7         1.7         3.3           Money Market Account         0.1         0.2         0.2           Fixed Interest Account         1.9%         2.1%         2.6%           MN Target Retirement Accounts         1.9%         4.7%         N/A           2020 Fund         0.1         6.9         N/A           2025 Fund         0.8         8.9         N/A           2030 Fund         1.4         10.2         N/A           2035 Fund         1.6         11.1         N/A           2040 Fund         1.7         12.5         N/A           2035 Fund         1.7         12.6         N/A           2040 Fund         1.7         12.6         N/A	Vanguard Balanced Index (passive)	5.1%	11.1%	11.9%
Vanguard Total Bond Market Index (passive)       1.7       1.7       3.3         Money Market Account       0.1       0.2       0.2         Fixed Interest Account       1.9%       2.1%       2.6%         MN Target Retirement Accounts       0.1       6.9       N/A         2020 Fund       0.1       6.9       N/A         2020 Fund       0.8       8.9       N/A         2030 Fund       1.6       11.1       N/A         2035 Fund       1.6       11.1       N/A         2040 Fund       1.7       12.5       N/A         2055 Fund       1.7       12.6       N/A	Fixed Income			
Money Market Account0.10.20.2Fixed Interest Account1.9%2.1%2.6%MN Target Retirement Accounts(0.1)%4.7%N/A2020 Fund0.16.9N/A2020 Fund0.88.9N/A2030 Fund1.410.2N/A2035 Fund1.611.1N/A2040 Fund1.711.8N/A2045 Fund1.712.5N/A2055 Fund1.712.6N/A	Dodge & Cox Income Fund (active)	1.0%	3.2%	4.3%
Fixed Interest Account1.9%2.1%2.6%MN Target Retirement AccountsIncome Fund***(0.1)%4.7%N/A2020 Fund0.16.9N/A2025 Fund0.88.9N/A2030 Fund1.410.2N/A2035 Fund1.611.1N/A2040 Fund1.711.8N/A2055 Fund1.712.6N/A	Vanguard Total Bond Market Index (passive)	1.7	1.7	3.3
MN Target Retirement Accounts         Income Fund***       (0.1)%       4.7%       N/A         2020 Fund       0.1       6.9       N/A         2025 Fund       0.8       8.9       N/A         2030 Fund       1.4       10.2       N/A         2035 Fund       1.6       11.1       N/A         2040 Fund       1.7       11.8       N/A         2045 Fund       1.7       12.5       N/A         2050 Fund       1.7       12.6       N/A	Money Market Account	0.1	0.2	0.2
Income Fund***(0.1)%4.7%N/A2020 Fund0.16.9N/A2025 Fund0.88.9N/A2030 Fund1.410.2N/A2035 Fund1.611.1N/A2040 Fund1.711.8N/A2045 Fund1.712.5N/A2050 Fund1.712.6N/A	Fixed Interest Account	1.9%	2.1%	2.6%
2020 Fund0.16.9N/A2025 Fund0.88.9N/A2030 Fund1.410.2N/A2035 Fund1.611.1N/A2040 Fund1.711.8N/A2045 Fund1.712.5N/A2050 Fund1.712.6N/A	MN Target Retirement Accounts			
2025 Fund0.88.9N/A2030 Fund1.410.2N/A2035 Fund1.611.1N/A2040 Fund1.711.8N/A2045 Fund1.712.5N/A2050 Fund1.712.6N/A2055 Fund1.712.6N/A	Income Fund***	(0.1)%	4.7%	N/A
2030 Fund1.410.2N/A2035 Fund1.611.1N/A2040 Fund1.711.8N/A2045 Fund1.712.5N/A2050 Fund1.712.6N/A2055 Fund1.712.6N/A	2020 Fund	0.1	6.9	N/A
2035 Fund1.611.1N/A2040 Fund1.711.8N/A2045 Fund1.712.5N/A2050 Fund1.712.6N/A2055 Fund1.712.6N/A	2025 Fund	0.8	8.9	N/A
2040 Fund1.711.8N/A2045 Fund1.712.5N/A2050 Fund1.712.6N/A2055 Fund1.712.6N/A	2030 Fund	1.4	10.2	N/A
2045 Fund1.712.5N/A2050 Fund1.712.6N/A2055 Fund1.712.6N/A	2035 Fund	1.6	11.1	N/A
2050 Fund1.712.6N/A2055 Fund1.712.6N/A	2040 Fund	1.7	11.8	N/A
2055 Fund 1.7 12.6 N/A	2045 Fund	1.7	12.5	N/A
	2050 Fund	1.7	12.6	N/A
2060 Fund 1.7 12.6 N/A	2055 Fund	1.7	12.6	N/A
	2060 Fund	1.7	12.6	N/A

* Not all investment options have been available for five years.

** Effective July 1, 2015, investment options were renamed to more descriptive titles.

*** MN Target Retirement 2015 Fund merged with the MN Target Retirement Income Fund on April 1, 2015.

## Schedule of Investment Manager Fees, **Commissions and Other Investment Expenses**

For the Fiscal Year Ended June 30, 2015 (Dollars in thousands)

SBI and Consultants	
MN State Board of Investment	\$867
Pension Consulting Alliance	8
Callan Investment	100
QED Financial Systems Fees	68
Total	\$1,043

#### **Outside Money Managers**

Domestic Equity - Active Managers	
Barrow, Hanley, Mewhinney	
& Strauss, Inc.	\$362
Earnest Partners, LLC	240
INTECH Investment	
Management, LLC	387
Goldman Sachs Asset Management	471
Hotchkis & Wiley Capital Management	591
Jacobs Levy Equity Management, Inc.	448
LSV Asset Management	630
Martingale Asset Management	349
McKinley Capital Management	501
Next Century Growth Investors, LCC	602
Peregrine Capital Management	578
Sands Capital Management, Inc.	560
Systematic Financial Management, L.P.	375
Winslow Capital Management, Inc.	241
Zevenbergen Capital, Inc.	493
Total	\$6,828
Domestic Equity - Semi Passive Manag	ers
BlackRock Institutional Trust Co., N.A.	\$579
Mellon Capital Management	586
J.P. Morgan Investment Management	708
INTECH Investment	

579
\$2,452
\$3,776

Domestic Equity - Passive Managers	
BlackRock Institutional Trust Co., N.A.	\$231
International Equity Managers	
Acadian Asset Management LLC	\$341
State Street Emerging Markets	70
Columbia Management	
Investment Advisors, LLC	258
AQR Capital Management, LLC	410
Capital International, Inc.	1,189
Pyramis Global Advisors	
Trust Company - Select	370
Pyramis Global Advisors	
Trust Company - Growth	222
J.P. Morgan Investment Management Inc.	304
Marathon Asset Management	544
McKinley Capital Management, Inc.	298
Morgan Stanley Investment Management	1,377
State Street Global Advisors ALPHA	321
State Street Global Advisors Passive	137
Total	\$5,841
Domestic Bond Managers	
Aberdeen Asset Management	\$411
Columbia Management	
Investment Advisors, LLC	274
BlackRock, Inc.	249
Dodge & Cox	
Investment Management Managers	375
Goldman Sachs Asset Management	420
Neuberger Investment Management	179
Western Asset Management	349
Pacific Investment	
Management Co. LLC (PIMCO)	778
Total	\$3,035
Total Investment Expenses	\$23,206

MSRS assets are commingled in various pooled investment accounts administered by the Minnesota State Board of Investment (SBI). The SBI uses outside money managers and consultants to invest the assets. The amounts in this schedule represent the MSRS share of fees paid to the SBI, and fees paid by the SBI to consultants and money managers. A listing of commissions paid and assets under management can be obtained from the SBI.

MSRS 2015 Comprehensive Annual Financial Report - Investment Section

# Investment Summary at Fair Value

As of June 30, 2014 and 2015 (Dollars in thousands)

Description	Fair Value June 30, 2014	Fair Value June 30, 2015	Percent of Portfolio
State Employees Retirement Fund			
Growth Share Pool	\$3,469,715	\$3,688,408	31%
Common Stock Index Pool	1,785,757	1,807,316	15
International Equity Pool	1,797,462	1,731,549	15
Fixed Income Pool	2,683,530	2,736,251	24
Alternative Investment Pool	1,450,587	1,434,881	15
Totals	\$11,187,051	\$11,398,405	100%
State Patrol Retirement Fund			
Growth Share Pool	\$201,457	\$210,773	31%
Common Stock Index Pool	103,684	103,278	15
International Equity Pool	104,364	98,949	15
Fixed Income Pool	155,810	156,362	24
Alternative Investment Pool	84,223	81,996	15
Totals	\$649,538	\$651,358	100%
Correctional Employees Retirement Fund			
Growth Share Pool	\$264,396	\$287,844	31%
Common Stock Index Pool	136,077	141,043	15
International Equity Pool	136,968	135,130	15
Fixed Income Pool	204,488	213,537	24
Alternative Investment Pool	110,536	111,978	15
Totals	\$852,465	\$889,532	100%
Judges Retirement Fund			
Growth Share Pool	\$52,855	\$55,222	31%
Common Stock Index Pool	27,203	27,059	15
International Equity Pool	27,381	25,924	15
Fixed Income Pool	40,879	40,967	24
Alternative Investment Pool	22,097	21,483	15
Totals	\$170,415	\$170,655	100%
Legislators Retirement Fund			
Growth Share Pool	\$2,537	\$1,101	31%
Common Stock Index Pool	1,306	540	15
International Equity Pool	1,314	517	15
Fixed Income Pool	1,962	817	24
Alternative Investment Pool	1,061	428	15
Totals	\$8,180	\$3,403	100%

# Actuarial Section

# MSRS 2015 Comprehensive Annual Financial Report

Evaluating Today, Looking to Tomorrow

# **Actuarial Section**

The following section is divided into two parts:

### Actuarial Valuation information for funding purposes.

Typically, these valuations include the calculations for funded ratio and annual required contribution, which are necessary for developing and monitoring funding policy. The Executive Director, staff and advisors develop funding policy recommendations for review and approval by the MSRS Board of Directors. The Board of Directors is responsible for establishing and maintaining funding policy for all MSRS defined benefit retirement plans.

The valuation results can be found on pages 130-163.

# Actuarial Valuation information for GASB-compliant accounting and financial reporting purposes.

These valuations provide information necessary for the MSRS governmental employers to record pension related transactions in their accounting system and financial statements, including year-end actuarially determined pension amounts and related note disclosures.

The valuation results can be found on pages 164-175.

# Funding Actuarial Valuation Results

MSRS 2015 Comprehensive Annual Financial Report - Actuarial Section

129

# Actuary's Certification Letter

Funding Actuarial Valuation Results

GRS

Gabriel Roeder Smith & Company Consultants & Actuaries 100 South Fifth Street Suite 1900 Minneapolis, MN 55402-1267 612.605.6200 612.605.6203 www.gabrielro

December 21, 2015

Board of Directors Minnesota State Retirement System 60 Empire Drive, Suite 300 St. Paul, MN 55103-3000

#### Re: 2015 Comprehensive Annual Financial Report (CAFR)

Dear Members of the Board:

We have previously prepared and presented to you our annual actuarial valuation of the State Employees Retirement Fund (SERF), the State Patrol Retirement Fund (SPRF), the Correctional Employees Retirement Fund (CERF), the Judges Retirement Fund (JRF) and the Legislators Retirement Fund (LRF) as of July 1, 2015.

In this Comprehensive Annual Financial Report (CAFR), all supporting schedules in the Actuarial Section have been prepared by MSRS based on the information included in reports on the annual actuarial valuation prepared by Gabriel Roeder Smith & Company (GRS). Reading the CAFR is not a substitute for reading the actuarial reports. In order to gain a full understanding of the actuarial condition of the system, it is important to read and understand the full actuarial reports for each of the aforementioned funds. Annual actuarial valuation reports for funding purposes as well as for accounting and financial reporting purposes are available on the MSRS website, along with online copies of this and previous CAFRs.

#### Valuation Results

The results of the valuations are summarized in the following table. For all plans, except LRF, because the asset returns are smoothed over five years in the valuation, the actuarial value of assets is less than the market value of assets. The funded ratios on that basis are lower and the deficiencies are higher than the market value results. The LRF valuation is based on the market value of assets, consistent with valuations since July 1, 2000.

	Accrued Lis Funded R			Contribution Deficiency/ (Sufficiency) (% of Pay)	
Plan	Actuarial Value of Assets	Market Value of Assets	Actuarial Value of Assets	Market Value of Assets	Statutory Amortization Date
SERF	85.72%	88.89%	1.44%	0.45%	2041
SPRF	76.81%	79.77%	7.98%	5.52%	2038
CERF	70.90%	73.35%	5.76%	4.56%	2038
JRF	53.30%	55.31%	11.89%	10.85%	2039
LRF	1.49%	1.49%	\$21,908,000 per year*	\$21,908,000 per year*	2026

* This fund is closed to new hires and the deficiency is expressed as a dollar amount rather than a percent of payroll.

Members of the Board December 21, 2015 Page 2

The fundamental financing objective of the fund is to establish contribution rates which will remain approximately level as a percentage of active member payroll from generation to generation and meet the required deadline for full funding.

A contribution deficiency means that over the long run, without further changes or favorable actuarial experience, the contributions scheduled to be made to the fund will not meet the goal of full funding by the statutory amortization date. All of the plans currently have contribution deficiencies on an actuarial value of assets basis and a market value of assets basis. SPRF will have a lower contribution deficiency when the scheduled additional 2.5% of pay in member and employer contributions take effect July 1, 2016. For the CERF and JRF, plan changes affecting members hired after June 30, 2010 and June 30, 2013, respectively, are also expected to ultimately reduce the cost of the plan.

The funded ratio measurements shown above are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations (of transferring the obligations to a unrelated third party in an arm's length market value transaction). The measurements also are dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amounts of future contributions will be different from those calculated in the actuarial reports due to future actual experience differing from assumed experience based upon the actuarial assumptions. A funded status measurement of 100% would not be synonymous with no required future contributions. If the funded status were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).

### The following actuarial assumption, method and plan changes were recognized this year in the valuations for funding purposes:

- For all Funds except LRF:
  - The discount rate was changed from 8.0% through June 30, 2017 and 8.5% thereafter to 8.0% for all years.
  - The inflation assumption was changed from 3.00% to 2.75%
  - $\circ\,$  The payroll growth assumption was changed from 3.75% to 3.50%
  - Assumed increases in salaries were decreased by 0.25% for all ages
- For all Funds except JRF:
  - $\circ\,$  For SERF and LRF, the post-retirement benefit increase rate was changed from 2.0% per year through 2015 and 2.5% thereafter to 2.0% per year through 2035 and 2.5% thereafter.

Gabriel Roeder Smith & Company

### Actuary's Certification Letter

Members of the Board December 21, 2015 Page 3

- For CERF, the post-retirement benefit increase rate was changed from 2.0% per year through 2033 and 2.5% thereafter to 2.0% per year indefinitely.
- For SPRF, the post-retirement benefit increase rate was changed from 1.0% per year through 2017,1.5% from 2018 through 2032 and 2.5% thereafter to 1.0% per year through 2029, 1.5% from 2030 through 2048 and 2.5% thereafter.
- Effective July 1, 2015, for all funds except LRF, a provision was added so that if the 2.5% (1.5% for SPRF) post-retirement benefit increase is triggered and the funding ratio (determined on a market value of assets basis) subsequently drops below 80% (75% for SPRF) or less for the most recent valuation year or 85% (80% for SPRF) or less for two consecutive years, the post-retirement benefit increase will change to 2.0% (1.0% for SPRF) until the plan again reaches a 90% (85% for SPRF) funding ratio for two consecutive years. For LRF, the post-retirement benefit increase is the same rate as the SERF.
- For all funds except LRF, the July 1, 2014 entry age normal accrued liability and normal cost were calculated using an equivalent single interest rate due to the statutory select and ultimate discount rate structure. This method is no longer needed since the discount rate was changed to 8.00% for all years effective July 1, 2015.

GRS conducted an examination of the basic financial and membership data provided to us as of June 30, 2015 by MSRS, and determined that the data appears reasonable in comparison to last year, and we have relied upon the data as submitted in performing the actuarial valuation and in preparing trend data schedules. The actuarial cost method and the assumptions related to asset valuation, investment return, earnings progression and active member payroll growth are specified by state statute. All other assumptions are based on actual experience with changes recommended by the prior actuary, adopted by the MSRS Board, and approved by the Legislative Commission on Pensions and Retirement (LCPR). The assumptions and methods used meet the parameters set by Actuarial Standards of Practice.

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

To the best of our knowledge and belief, the valuations were performed in accordance with generally accepted actuarial principles and procedures, the requirements of Minnesota Statutes, Section 356.215, and the requirements of the Standards for Actuarial Work established by the LCPR. In our opinion, the results of the reports reflect the actuarial position of the plans on an ongoing basis under the prescribed assumptions, methods, and procedures.

Gabriel Roeder Smith & Company

Members of the Board December 21, 2015 Page 4

Brian B. Murphy and Bonita J. Wurst are 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 in this report. In addition, Mr. Murphy meets the requirements of "approved actuary" under Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (c). The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Respectfully submitted,

Brie B Mapy Brian B. Murphy, FSA, EA, MAAA Bonito J. Wurst

Bonita J. Wurst, ASA, EA, MAAA BBM/BJW:ah

Gabriel Roeder Smith & Company

# Summary of Actuarial Methods and Assumptions

The actuarial methods and assumptions that follow are prescribed by *Minnesota Statutes*, the Legislative Commission on Pensions and Retirement (LCPR), and the MSRS Board of Directors. MSRS uses these methods and assumptions to monitor funding progress and the sufficiency of plan member and employer contribution rates. These assumptions are also used in the computation of Actuarially Determined Contributions found in *Required Supplementary Information* on pages 100-105. Methods and assumptions used for financial reporting purposes, if they differ, are found in the *Actuarial Section*, beginning on page 174. Additional actuarial methods and assumptions used in the July 1, 2015, funding actuarial valuations can be found online at www.msrs.state.mn.us/actuarial-reports.

### State Employees Retirement Fund

#### **Actuarial Methods**

- **1. Actuarial Cost Method:** Entry age normal, with the unfunded actuarial accrued liability amortized over the statutory period using a level percent of payroll assuming payroll increases
- 2. Asset Valuation Method: Market value smoothed over five years
- **3. Funding Objective:** Establish contribution rates which, when expressed as a percentage of active member payroll, will remain approximately level from generation to generation and meet the required deadline for full funding
- 4. Change in Methods since the 7/1/2014 Valuation: Due to the elimination of the select and ultimate discount rate assumption, the method of using an equivalent single interest rate for calculations is no longer required.

#### **Actuarial Assumptions***

- 1. Investment Return: 8.00% per year (2015)
- 2. Benefit Increases After Retirement: 2% per year through 2035 and 2.5% per year thereafter (2015)
- 3. Salary Increases: Service-related rates as shown in the table on page 141 of this section (2015)
- 4. Inflation: 2.75% per year (2015)
- 5. Payroll Growth: 3.50% per year (2015)
- 6. Mortality Rates:
  - a. Healthy Pre-retirement: RP-2000 employee generational mortality table projected with mortality improvement scale AA; white collar adjustment; males-set forward three years; females-set back one year (2010)
  - b. Healthy Post-retirement: RP-2000 annuitant generational mortality table projected with mortality improvement scale AA; white collar adjustment (2010)
  - c. Disabled: RP-2000 disabled mortality table; males-no setback; females-set forward five years (2010)
- 7. Retirement: Age-based rates as shown in the table on page 145 of this section (2010)
- 8. Withdrawal: Select and Ultimate rates based on actual experience;
  - Males 45% in year 1, 14% in year 2, and 9% in year 3;
  - Females 48% in year 1, 15% in year 2, and 10% in year 3;
  - Rates after the third year are shown on page 147 of this section (2008)
- 9. Disability: Age-related rates based on actual experience as shown in the table on page 146 of this section (2008)
- **10. Allowance for Combined Service Annuity:** Liabilities for active members are increased by 1.2% and liabilities for former members are increased by 40% to account for the effect of some participants having eligibility for a Combined Service Annuity
- **11. Administrative Expenses:** Prior year administrative expenses expressed as a percentage of prior year projected payroll (1994)
- **12. Refund of Contributions:** Employees who withdraw are assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit (1978)

* Year in parentheses is the date of adoption.

### State Patrol Retirement Fund

#### **Actuarial Methods**

- **1. Actuarial Cost Method:** Entry age normal, with the unfunded actuarial accrued liability amortized over the statutory period using a level percent of payroll assuming payroll increases
- 2. Asset Valuation Method: Market value smoothed over five years
- **3. Funding Objective:** Establish contribution rates which, when expressed as a percentage of active member payroll, will remain approximately level from generation to generation and meet the required deadline for full funding
- 4. Change in Methods since the 7/1/2014 Valuation: Due to the elimination of the select and ultimate discount rate assumption, the method of using an equivalent single interest rate for calculations is no longer required.

#### **Actuarial Assumptions***

- 1. Investment Return: 8.00% per year (2015)
- 2. Benefit Increases After Retirement:
  - 1.0% per year through 2029, then 1.5% per year from 2030 to 2048, and 2.5% per year thereafter (2015)
- 3. Salary Increases: Service-related rates as shown in the table on page 141 of this section (2015)
- 4. Inflation: 2.75% per year (2015)
- 5. Payroll Growth: 3.50% per year (2015)
- 6. Mortality Rates:
  - a. Healthy Pre-retirement: RP-2000 employee generational mortality table projected with mortality improvement scale AA; white collar adjustment (2012)
  - b. Healthy Post-retirement: RP-2000 annuitant generational mortality table projected with mortality improvement scale AA; white collar adjustment; males-set back two years; females-set forward one year (2012)
  - c. Disabled: RP-2000 annuitant generational mortality table projected with mortality improvement scale AA; white collar adjustment; males-set back 2 years; females-set forward 1 year (2012)
- 7. Retirement: Age-based rates as shown in the table on page 145 of this section (2012)
- 8. Withdrawal: Select and Ultimate rates based on actual experience; 5% in year 1, 2% in year 2, and 2% in year 3; Rates after the third year are shown on page 147 of this section (2012)
- 9. Disability: Age-related rates based on experience as shown in the table on page 146 of this section. All incidences are assumed to be duty-related (2012)
- **10. Allowance for Combined Service Annuity:** Liabilities for former members are increased by 30% to account for the effect of some participants having eligibility for a Combined Service Annuity
- **11. Administrative Expenses:** Prior year administrative expenses expressed as a percentage of prior year projected payroll (1994)
- **12. Refund of Contributions:** Employees who withdraw are assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit (1978)

* Year in parentheses is the date of adoption.

Continued on next page

# Summary of Actuarial Methods and Assumptions

### **Correctional Employees Retirement Fund**

#### **Actuarial Methods**

- **1. Actuarial Cost Method:** Entry age normal, with the unfunded actuarial accrued liability amortized over the statutory period using a level percent of payroll assuming payroll increases
- 2. Asset Valuation Method: Market value smoothed over five years
- **3. Funding Objective:** Establish contribution rates which, when expressed as a percentage of active member payroll, will remain approximately level from generation to generation and meet the required deadline for full funding
- 4. Change in Methods since the 7/1/2014 Valuation: Due to the elimination of the select and ultimate discount rate assumption, the method of using an equivalent single interest rate for calculations is no longer required.

#### **Actuarial Assumptions***

- 1. Investment Return: 8.00% per year (2015)
- 2. Benefit Increases After Retirement: 2% per year (2015)
- 3. Salary Increases: Service-related rates as shown in the table on page 141 of this section (2015)
- 4. Inflation: 2.75% per year (2015)
- 5. Payroll Growth: 3.50% per year (2015)
- 6. Mortality Rates
  - a. Healthy Pre-retirement: RP-2000 employee generational mortality table projected with mortality improvement scale AA; white collar adjustment (2012)
  - b. Healthy Post-retirement: RP-2000 annuitant generational mortality table projected with mortality improvement scale AA; white collar adjustment; males-set forward one year; females-set back one year (2012)
  - c. Disabled: RP-2000 disabled mortality table (2012)
- 7. Retirement: Age-based rates as shown in the table on page 145 of this section (2012)
- 8. Withdrawal: Select and Ultimate rates based on actual experience; 20% in year 1, 15% in year 2, and 8% in year 3; Rates after the third year are shown on page 147 of this section (2012)
- 9. Disability: Age-related rates based on experience as shown in the table on page 146 of this section. All incidences are assumed to be duty-related (2012)
- **10. Allowance for Combined Service Annuity:** Liabilities for former members are increased by 30% to account for the effect of some participants having eligibility for a Combined Service Annuity
- **11. Administrative Expenses:** Prior year administrative expenses expressed as a percentage of prior year projected payroll (1994)
- 12. Refund of Contributions: Employees who withdraw are assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit (1978)

* Year in parentheses is the date of adoption.

### Judges Retirement Fund

#### **Actuarial Methods**

- **1. Actuarial Cost Method:** Entry age normal, with the unfunded actuarial accrued liability amortized over the statutory period using a level percent of payroll assuming payroll increases
- 2. Asset Valuation Method: Market value smoothed over five years
- **3. Funding Objective:** Establish contribution rates which, when expressed as a percentage of active member payroll, will remain approximately level from generation to generation and meet the required deadline for full funding
- 4. Change in Methods since the 7/1/2014 Valuation: Due to the elimination of the select and ultimate discount rate assumption, the method of using an equivalent single interest rate for calculations is no longer required.

#### Actuarial Assumptions*

- 1. Investment Return: 8.00% per year (2015)
- 2. Benefit Increases After Retirement: 1.75% per year (2014)
- 3. Salary Increases: 2.75% per year (2015)
- 4. Inflation: 2.75% per year (2015)
- 5. Payroll Growth: 2.75% per year (2015)
- 6. Mortality Rates:
  - a. Healthy Pre-retirement: RP-2000 employee generational mortality table projected with mortality improvement scale AA; white collar adjustment (2012)
  - b. Healthy Post-retirement: RP-2000 annuitant generational mortality table projected with mortality improvement scale AA; white collar adjustment; males-set back one year; females-set back two years (2012)
  - c. Disabled: RP-2000 annuitant generational mortality table projected with mortality improvement scale AA; white collar adjustment; males-set back one year; females-set back two years (2012)
- 7. Retirement: Age-based rates as shown in the table on page 145 of this section (2012)
- 8. Withdrawal: None
- **9. Disability:** Age-related rates are based on actual experience as shown in the table on page 146 of this section (2012)
- **10. Administrative Expenses:** Prior year administrative expenses expressed as a percentage of prior year projected payroll
- **11. Refund of Contributions:** Account balances for deferred members accumulate interest until normal retirement date and are discounted back to the valuation date
- * Year in parentheses is the date of adoption.

Continued on next page

# Summary of Actuarial Methods and Assumptions

### Legislators Retirement Fund

#### **Actuarial Methods**

- **1. Actuarial Cost Method:** Entry age normal, with the unfunded actuarial accrued liability amortized over 30 years as a level percent of payroll
- 2. Asset Valuation Method: Market value
- **3. Funding Objective:** Pay-as-you-go, with annual benefit payments and administrative expenses financed primarily by State of Minnesota General Fund appropriations
- 4. Change in Methods since the 7/1/2014 Valuation: None.

#### **Actuarial Assumptions***

- **1.** Investment Return: 0% per year (2011)
- 2. Benefit Increases After Retirement: 2% per year through 2035, and 2.5% per year thereafter (2015)
- **3.** Salary Increases: 5% annually (1994)
- 4. Inflation: 2.75% per year (2015)
- 5. Payroll Growth: Not applicable; closed plan with decreasing payroll
- 6. Mortality Rates:
  - a. Healthy Pre-retirement: RP-2000 employee generational mortality table projected with mortality improvement scale AA; white collar adjustment; males-set forward three years; females-set back one year (2012)
  - b. Healthy Post-retirement: RP-2000 annuitant generational mortality table projected with mortality improvement scale AA; white collar adjustment (2012)
  - c. Disabled: Not applicable
- 7. Retirement: Age-based rates as shown in the table on page 145 of this section (2012)
- 8. Withdrawal: Ultimate rates based on actual experience as shown on page 147 of this section
- 9. Disability: No disability benefits
- **10. Allowance for Combined Service Annuity:** Liabilities for former members are increased by 30% to account for the effect of some participants having eligibility for a Combined Service Annuity
- **11. Administrative Expenses:** Prior year administrative expenses expressed as a percentage of prior year projected payroll (1994)
- **12. Refund of Contributions:** Employees who withdraw are assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit (1978)

* Year in parentheses is the date of adoption.

# **Changes in Actuarial Assumptions**

The following changes in funding actuarial assumptions have occurred since the July 1, 2014, actuarial valuations:

### State Employees Retirement Fund

- The discount rate was changed from 8.0% through June 30, 2017, and 8.5% thereafter, to 8.0% for all years.
- The inflation assumption was changed from 3.00% to 2.75%.
- The payroll growth assumption was changed from 3.75% to 3.50%.
- Assumed increases in member salaries were reduced by 0.25% at all ages.
- The assumed post-retirement benefit increase rate was changed from 2.0% per year through 2015 and 2.5% per year thereafter, to 2.0% per year through 2035, and 2.5% per year thereafter.

### **State Patrol Retirement Fund**

- The discount rate was changed from 8.0% through June 30, 2017, and 8.5% thereafter, to 8.0% for all years.
- The inflation assumption was changed from 3.00% to 2.75%.
- The payroll growth assumption was changed from 3.75% to 3.50%.
- Assumed increases in member salaries were reduced by 0.25% at all ages.
- The assumed post-retirement benefit increase rate was changed from 1.0% per year through 2017, 1.5% per year from 2018 to 2032, and 2.5% per year threafter, to 1.0% per year through 2029, 1.5% per year from 2030 to 2048, and 2.5% per year thereafter.

### **Correctional Employees Retirement Fund**

- The discount rate was changed from 8.0% through June 30, 2017, and 8.5% thereafter, to 8.0% for all years.
- The inflation assumption was changed from 3.00% to 2.75%.
- The payroll growth assumption was changed from 3.75% to 3.50%.
- Assumed increases in member salaries were reduced by 0.25% at all ages.
- The assumed post-retirement benefit increase rate was changed from 2.0% per year through 2033 and 2.5% per year thereafter, to 2.0% per year indefinitely.

### Judges Retirement Fund

- The discount rate was changed from 8.0% through June 30, 2017, and 8.5% thereafter, to 8.0% for all years.
- The payroll growth, salary increase, and inflation assumptions were changed from 3.00% to 2.75%.

#### **Legislators Retirement Fund**

- The inflation assumption was changed from 3.00% to 2.75%.
- The assumed post-retirement benefit increase rate was changed from 2.0% per year through 2015 and 2.5% per year thereafter, to 2.0% per year through 2035, and 2.5% per year thereafter.

# **Other Assumptions**

June 30, 2015

### Form of Payment

#### ANNUITY OPTION SELECTED

		Benefit Option		
Retirement	50%	75%	100%	
Fund	Joint and Survivor	Joint and Survivor	Joint and Survivor	Straight Life
State Employees				
Male-Married	15%	10%	50%	25%
Female-Married	15	0	25	60
All Unmarried	0	0	0	100
All Deferred	0	0	0	100
State Patrol				
Male-Married	15%	25%	35%	25%
Female-Married	25	30	5	40
All Unmarried	0	0	0	100
Correctional Emplo	oyees			
Male-Married	10%	10%	40%	40%
Female-Married	10	10	30	50
All Unmarried	0	0	0	100
All Deferred*	0	0	0	100
Judges				
All	0%	0%	0%	100%
Legislators				
Active Married	100%	0%	0%	0%
Active Single	0	0	0	100
All Deferred	0	0	0	100

* Current deferred members who terminated prior to July 1, 1997, are assumed to receive the Level Social Security option to age 62.

### Member Information

Retirement	Percent	t Married	Age of Bene	ficiaries for:
Fund	Males	Females	Males	Females
State Employees	85%	70%	3 years younger	2 years older
State Patrol	85	85	2 years younger	2 years older
Correctional Employees	85	85	3 years younger	3 years older
Judges Marital st	atus as indica	ated in member data file	3 years younger	3 years older
Legislators	85	85	3 years younger	3 years older

Actual marital status is used for members in payment status in the four largest plans. Legislators in payment status are assumed to be 100% married for purposes of a death benefit, except if reported with a joint and survivor benefit. 100% of Elective State Officers members are assumed to be eligible for the automatic survivor benefit.

# **Actuarial Tables**

June 30, 2015

### **Salary Increase Rates**

### State Employees Retirement Fund

____

Salary Scale					
Service Years	Increase				
1	10.25%				
2	7.85				
3	6.65				
4	5.95				
5	5.45				
6	5.05				
7	4.75				
8	4.45				
9	4.25				
10	4.15				
11	3.95				
12	3.85				
13	3.75				
14	3.55				
15	3.45				
16	3.35				
17+	3.25				

### Correctional Employees Retirement Fund

Salary Scale				
Service Years	Increase	_		
1	5.75%			
2	5.60			
3	5.45			
4	5.30			
5	5.15			
6	5.00			
7	4.85			
8	4.70			
9	4.55			
10	4.40			
11	4.30			
12	4.20			
13	4.10			
14	4.00			
15	3.90			
16	3.80			
17	3.70			
18	3.60			
19+	3.50			

### **State Patrol Retirement Fund**

Salary Scale				
Service Years	Increase			
1	7.75%			
2	7.25			
3	6.75			
4	6.50			
5	6.25			
6	6.00			
7	5.75			
8	5.60			
9	5.45			
10	5.30			
11	5.15			
12	5.00			
13	4.85			
14	4.70			
15	4.55			
16	4.40			
17	4.25			
18	4.10			
19	3.95			
20	3.80			
21+	3.75			

### Judges Retirement Fund

2.75% per year

### **Legislators Retirement Fund**

5.00% per year

Continued on next page

### **Actuarial Tables**

June 30, 2015

### **Mortality Rates**

### State Employees Retirement Fund

			Rates	(%)*		
	Hea	lthy	He	ealthy		
	Pre-Retirem	ent Mortality**	Post-Retirer	nent Mortality**	Disability	v Mortality
Age	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.03%	0.02%	2.26%	0.75%
25	0.04	0.02	0.04	0.02	2.26	0.75
30	0.05	0.02	0.04	0.03	2.26	0.75
35	0.08	0.04	0.06	0.05	2.26	0.75
40	0.11	0.06	0.09	0.06	2.26	0.75
45	0.17	0.09	0.13	0.10	2.26	1.15
50	0.24	0.15	0.60	0.24	2.90	1.65
55	0.35	0.22	0.54	0.35	3.54	2.18
60	0.56	0.34	0.66	0.56	4.20	2.80
65	0.85	0.54	1.16	0.91	5.02	3.76
70	2.67	0.82	1.93	1.52	6.26	5.22

### **State Patrol Retirement Fund**

			Rates	(%)*		
	Hea	althy	He	althy		
	<b>Pre-Retirem</b>	ent Mortality**	Post-Retirer	nent Mortality**	Disability	^v Mortality
Age	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.03%	0.02%	0.03%	0.02%
25	0.04	0.02	0.04	0.02	0.04	0.02
30	0.04	0.03	0.04	0.03	0.04	0.03
35	0.06	0.05	0.05	0.05	0.05	0.05
40	0.09	0.06	0.08	0.07	0.08	0.07
45	0.13	0.10	0.11	0.11	0.11	0.11
50	0.20	0.16	0.17	0.25	0.17	0.25
55	0.27	0.24	0.57	0.39	0.57	0.39
60	0.43	0.38	0.57	0.61	0.57	0.61
65	0.67	0.59	0.92	1.01	0.92	1.01
70	0.98	0.88	1.58	1.69	1.58	1.69

* Generally, mortality rates are expected to increase as age increases. Due to the combination of pre-retirement rates, post-retirement rates, the white collar adjustment, and Projection Scale AA, the prescribed mortality tables have a few ages where assumed mortality decreases slightly instead of increases. The actuaries have used the rates as prescribed, but note that the prescribed assumption may not be reasonable at every age. If the rates were reasonably adjusted so that they decreased at all ages, the actuaries would not expect the valuation results to be materially different.

** These rates were adjusted for mortality improvements using Projection Scale AA.

			Rates	(%)*		
	Hea	althy		althy		
	Pre-Retirem	ent Mortality**	Post-Retirer	nent Mortality**	Disability	Mortality
Age	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.04%	0.02%	2.26%	0.75%
25	0.04	0.02	0.04	0.02	2.26	0.75
30	0.04	0.03	0.04	0.02	2.26	0.75
35	0.06	0.05	0.06	0.04	2.26	0.75
40	0.09	0.06	0.10	0.06	2.26	0.75
45	0.13	0.10	0.15	0.09	2.26	0.75
50	0.20	0.16	0.60	0.15	2.90	1.15
55	0.27	0.24	0.54	0.32	3.54	1.65
60	0.43	0.38	0.73	0.51	4.20	2.18
65	0.67	0.59	1.30	0.82	5.02	2.80
70	0.98	0.88	2.14	1.37	6.26	3.76

### **Correctional Employees Retirement Fund**

### Judges Retirement Fund

			Rates	(%)*		
	He	althy	He	althy		
	Pre-Retirement Mortality**		Post-Retirement Mortality**		Disability Mortality	
Age	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.03%	0.02%	0.03%	0.02%
25	0.04	0.02	0.04	0.02	0.04	0.02
30	0.04	0.03	0.04	0.02	0.04	0.02
35	0.06	0.05	0.05	0.04	0.05	0.04
40	0.09	0.06	0.08	0.06	0.08	0.06
45	0.13	0.10	0.12	0.08	0.12	0.08
50	0.20	0.16	0.18	0.13	0.18	0.13
55	0.27	0.24	0.56	0.29	0.56	0.29
60	0.43	0.38	0.61	0.47	0.61	0.47
65	0.67	0.59	1.04	0.74	1.04	0.74
70	0.98	0.88	1.74	1.24	1.74	1.24

Continued on next page

## **Actuarial Tables**

June 30, 2015

### **Mortality Rates**

### Legislators Retirement Fund

	Rates (%)*					
	Healthy Pre-Retirement Mortality**		Healthy Post-Retirement Mortality**			
Age	Male	Female	Male	Female		
20	0.04%	0.02%	0.03%	0.02%		
25	0.04	0.02	0.04	0.02		
30	0.05	0.02	0.04	0.03		
35	0.08	0.04	0.06	0.05		
0	0.11	0.06	0.09	0.06		
-5	0.17	0.09	0.13	0.10		
50	0.24	0.15	0.60	0.24		
55	0.35	0.22	0.54	0.35		
50	0.56	0.34	0.66	0.56		
5	0.85	0.54	1.16	0.91		
70	2.67	0.82	1.93	1.52		

* Generally, mortality rates are expected to increase as age increases. Due to the combination of pre-retirement rates, post-retirement rates, the white collar adjustment, and Projection Scale AA, the prescribed mortality tables have a few ages where assumed mortality decreases slightly instead of increases. The actuaries have used the rates as prescribed, but note that the prescribed assumption may not be reasonable at every age. If the rates were reasonably adjusted so that they decreased at all ages, the actuaries would not expect the valuation results to be materially different.

** These rates were adjusted for mortality improvements using Projection Scale AA.

#### **Retirement Rates**

#### State Employees Retirement Fund

	Percent Retiring	
Age	Rule of 90 Eligible	All Others
55	20%	5%
56	15	5
57	15	5
58	15	5
59	20	6
60	20	7
61	22	12
62	40	22
63	30	16
64	30	18
65	40	40
66	30	30
67	25	25
68	25	25
69	25	25
70	30	30
71+	100	100

#### State Patrol Retirement Fund

Age	Percent Retiring	
50	7%	
51	6	
52	6	
53	6	
54	3	
55	65	
56	50	
57	30	
58	20	
59	20	
60+	100	

#### Correctional Employees Retirement Fund

Judges Retirement Fund

#### Legislators Retirement Fund

Age	Percent Retiring	Age	Percent
50	5%	60	0
51	3	61	0
52	3	62	8
53	3	63	5
54	5	64	8
55	55	65	25
56	12	66	20
57	12	67	10
58	10	68	30
59	10	69	10
60	10	70	100
61	10		
62	30		
63	30		
64	30		
65	50		
66	50		
67	50		
68	50		
69	50		
70+	100		

cent Retiring	Age	Percent Retiring
0%	60	0%
0	61	0
8	62	40
5	63	30
8	64	30
25	65	40
20	66	30
10	67	25
30	68	25
10	69	25
100	70	30
	71+	100

Continued on next page

### **Actuarial Tables**

June 30, 2015

#### **Disability Retirement Rates**

#### State Employees Retirement Fund

	Disability Retirement Rates	
Age	Male	Female
20	0.01%	0.01%
25	0.01	0.01
30	0.01	0.01
35	0.03	0.03
40	0.08	0.08
45	0.13	0.13
50	0.29	0.29
55	0.50	0.43
60	0.78	0.62
65	0.00	0.00

#### Correctional Employees Retirement Fund

	<b>Disability Retirement Rates</b>	
Age	Male	Female
20	0.05%	0.05%
25	0.08	0.08
30	0.11	0.11
35	0.15	0.15
40	0.24	0.24
45	0.39	0.39
50	0.67	0.67
55	1.17	1.17
60	1.88	1.88
65	0.00	0.00

### Legislators Retirement Fund

No disability benefits are available with this plan.

#### **State Patrol Retirement Fund**

	Disability Retirement Rates		
Age	Male	Female	
20	0.03%	0.03%	
25	0.05	0.05	
30	0.06	0.06	
35	0.09	0.09	
40	0.14	0.14	
45	0.23	0.23	
50	0.40	0.40	
55	0.70	0.70	
60	1.13	1.13	
65	0.00	0.00	

#### Judges Retirement Fund

	Disability Retirement Rates	
Age	Male	Female
20	0.00%	0.00%
25	0.00	0.00
30	0.00	0.00
35	0.01	0.00
40	0.01	0.01
45	0.02	0.03
50	0.07	0.05
55	0.17	0.12
60	0.38	0.31
65	0.00	0.00
70	0.00	0.00

#### Withdrawal Rates*

#### State Employees Retirement Fund

	Withdrawal Rates		
	After Th	After Third Year	
Age	Male	Female	
20	6.90%	8.55%	
25	5.90	7.80	
30	4.90	7.05	
35	3.90	5.10	
40	3.20	4.38	
45	2.70	3.75	
50	2.20	3.05	
55	0.00	0.00	
60	0.00	0.00	
65	0.00	0.00	

#### Correctional Employees Retirement Fund

	Withdra	Withdrawal Rates	
	After Th	After Third Year	
Age	Male	Female	
20	13.20%	8.80%	
25	8.10	7.80	
30	5.00	7.45	
35	3.45	7.10	
40	2.55	5.70	
45	1.95	3.50	
50	0.00	0.00	
55	0.00	0.00	
60	0.00	0.00	
65	0.00	0.00	

#### State Patrol Retirement Fund

		Withdrawal Rates After Third Year	
Age	Male	Female	
20	1.47%	1.47%	
25	1.13	1.13	
30	0.80	0.80	
35	0.47	0.47	
40	0.40	0.40	
45	0.40	0.40	
50	0.00	0.00	
55	0.00	0.00	
60	0.00	0.00	
65	0.00	0.00	

#### Legislators Retirement Fund

Years of	Withdrawal Rates	
Service	House	Senate
1	0.00%	0.00%
2	30.00	0.00
3	0.00	0.00
4	20.00	25.00
5	0.00	0.00
6	10.00	0.00
7	0.00	0.00
8	5.00	10.00
9+	0.00	0.00

#### Judges Retirement Fund

Members in the Judges Plan are assumed not to withdraw.

* Withdrawal rates for the first three years of employment in the State Employees, State Patrol, and Correctional Employees Retirement Funds are found in the Summary of Actuarial Methods and Assumptions on pages 134-136.

### **Changes in Plan Provisions**

The following changes in plan provisions have occurred since the July 1, 2014, actuarial valuations:

#### **State Employees Retirement Fund**

- The Contribution Stabilizer statutes were revised to make changes to contribution rates less prescriptive and more flexible.
- Effective July 1, 2015, a provision was added so that if the 2.5% post-retirement benefit increase is triggered and the funded ratio, determined on a market value of assets basis, subsequently drops below 80% for one year or 85% for two consecutive years, the post-retirement benefit increase will change to 2.0% until the plan again reaches a 90% funded ratio for two consecutive years.

#### **State Patrol Retirement Fund**

- The Contribution Stabilizer statutes were revised to make changes to contribution rates less prescriptive and more flexible.
- Effective July 1, 2015, a provision was added so that if the 1.5% post-retirement benefit increase is triggered and the funded ratio, determined on a market value of assets basis, subsequently drops below 75% for one year or 80% for two consecutive years, the post-retirement benefit increase will change to 1.0% until the plan again reaches an 85% funded ratio for two consecutive years.
- The age that disabilitants change from disabled status to retired status changed from age 65 to age 55 for disabilities after June 30, 2015.

#### **Correctional Employees Retirement Fund**

- The Contribution Stabilizer statutes were revised to make changes to contribution rates less prescriptive and more flexible.
- Effective July 1, 2015, a provision was added so that if the 2.5% post-retirement benefit increase is triggered and the funded ratio, determined on a market value of assets basis, subsequently drops below 80% for one year or 85% for two consecutive years, the post-retirement benefit increase will change to 2.0% until the plan again reaches a 90% funded ratio for two consecutive years.

#### Judges Retirement Fund

• There were no changes in plan provisions.

#### Legislators Retirement Fund

• Effective July 1, 2015, a provision was added so that if the 2.5% post-retirement benefit increase is triggered and the funded ratio of the State Employees Retirement Fund, determined on a market value of assets basis, subsequently drops below 80% for one year or 85% for two consecutive years, the post-retirement benefit increase will change to 2.0% until the State Employee Retirement Fund again reaches a 90% funded ratio for two consecutive years.

There were no other changes in plan provisions during fiscal year 2015.

A description of the system and plans may be found in the Notes to the Financial Statements beginning on page 72. Additional plan provisions are summarized in the Introductory Section beginning on page 24.

# Actuarial Accrued Liability (AAL)

As of June 30, 2015 (Dollars in thousands)

		Defined Benefit Retirement Funds				
	State Employees	State Patrol	Correctional Employees	Judges	Legislators	
Active Members						
Retirement Annuities	\$4,588,510	\$242,579	\$448,916	\$103,058	\$16,375	
Disability Benefits	147,352	8,607	25,447	1,468	0	
Survivor Benefits	73,644	1,444	5,427	1,704	328	
Deferred Retirements	60,585	737	16,104	0	(108)	
Refunds	(56,887)	(216)	(6,891)	122	(14)	
Total Active Members	\$4,813,204	\$253,151	\$489,003	\$106,352	\$16,581	
Deferred Retirements	1,312,133	9,289	114,082	4,166	58,639	
Former Members Not Vested	8,259	52	1,581	0	0	
Benefit Recipients	6,949,000	570,541	634,592	205,115	154,999	
Unclassified Employees						
Retirement Fund						
Contingent Liability	10,106	0	0	0	0	
Total AAL	\$13,092,702	\$833,033	\$1,239,258	\$315,633	\$230,219	

### Actual Contribution Rates as Compared to Actuarially Recommended Rates

As of June 30, 2015

	Actuarial	Ac	tual Contrib	ution Rat	es	Recommended	l Sufficiency/
Retirement Fund	Valuation Date	Employee	Employer	State	Total	Rate	(Deficiency)
State Employees	July 1, 2015	5.50%	5.50%	N/A	11.00%	12.44%	(1.44)%
State Patrol*	July 1, 2015	13.40	20.10	1.43%	34.93	42.91	(7.98)
<b>Correctional Employees</b>	July 1, 2015	9.10	12.85	N/A	21.95	27.41	(5.46)
Judges**	July 1, 2015	8.34	22.50	N/A	30.84	42.73	(11.89)
Legislators	July 1, 2015	9.00	0.00	N/A	9.00	\$21,998,000	\$(21,908,000)

* State contribution is statutorily required only until the Public Employee Retirement Association Police and Fire Retirement Fund and the MSRS State Patrol Retirement Fund both reach a 90% funded ratio on a market value of assets basis.

** The statutory contribution rate for Judges in the Tier 1 benefit program is 9 percent of salary. The statutory contribution rate for Judges in the Tier 2 benefit program is 7 percent of salary. The employee and total rates on the schedule reflect the fact that member contributions for Tier 1 Judges at the maximum benefit are directed to the Unclassified Employees Retirement Fund. If these contributions were not directed to the Unclassified Employees Retirement Fund. If these contributions were not directed to the Unclassified Employees Retirement Fund, the employee and total rates would be 8.75 percent and 31.25 percent, respectively, instead of 8.34 and 30.84 percent as shown above. The distinction between the Tier 1 and Tier 2 benefit programs is explained on page 75 of the Financial Section.

### Schedule of Changes in Unfunded Actuarial Accrued Liabilities (UAAL)

For the Fiscal Year Ended June 30, 2015 (Dollars in thousands)

		Defined	Benefit Retireme	nt Funds	
	State Employees	State Patrol	Correctional Employees	Judges	Legislators
A. UAAL at the Beginning of the Year	\$2,118,854	\$202,551	\$332,170	\$140,705	\$242,602
B. Change Due to Interest Requirements and Current Rate of Funding					
<ol> <li>Normal Cost and Expenses</li> <li>Contributions</li> <li>Interest on A, B1, and B2</li> <li>Totals (B1+B2+B3)</li> </ol>	\$204,272 (295,626) 214,687 \$123,333	\$15,494 (23,937) 18,988 \$10,545	\$37,268 (50,541) <u>30,605</u> \$17,332	\$7,860 (13,405) 12,141 \$6,596	\$1,334 (3,369) 0 \$(2,035)
C. Expected UAAL at End of the Year (A+B4)	\$2,242,187	\$213,096	\$349,502	\$147,301	\$240,567
D. Increase (Decrease) Due to Actuarial Losses (Gains) Because o Experience Deviations from the Ex					
<ol> <li>Age and Service Requirements</li> <li>Disability Requirements</li> <li>Death-in-Service Benefits</li> <li>Withdrawals</li> <li>Salary Increases</li> <li>Investment Return</li> <li>Mortality of Annuitants</li> <li>Other items</li> <li>Totals</li> </ol>	\$(2,415) (90) 331 (2,077) (40,216) (468,421) 2,053 73,953 \$(436,882)	\$1,446 1,074 (187) (265) 2,546 (26,968) 648 7,096 \$(14,610)	(2,075) 7,305 (31,292) 549 (1,032)	\$1,434 (138) (116) 0 18 (6,932) (593) (2,666) \$(8,993)	\$(237) 0 24 0 569 (244) 762 (2,270) \$(1,396)
E. UAAL at End of Year Before Plan Amendments and Changes in Actuarial Assumptions (C + D9)	\$1,805,305	\$198,486	\$326,799	\$138,308	\$239,171
F. Change in UAAL Due to Changes in Plan Provisions	0	0	0	0	0
G. Change in UAAL Due to Changes in Actuarial Assumptions	64,112	(5,316)	33,835	9,090	(12,382)
H. Change in UAAL Due to Changes in Decrement Timing and Miscellaneous Methodology	0	0	0	0	0
I. UAAL at the End of the Year	\$1,869,417	\$193,170	\$360,634	\$147,398	\$226,789

### Schedule of Actuarial and Market Value Funding Progress

Four Largest MSRS Defined Benefit Retirement Funds Last Ten Fiscal Years

		Actuarial Basis			Market Value Basis		
Actuarial Valuation Date	Assets	Funded Ratio	Contribution Sufficiency/ (Deficiency)	Assets	Funded Ratio	Contribution Sufficiency/ (Deficiency)*	
State Employ	yees Retiremen	t Fund					
07/01/06	\$8,486,756	96.23%	(2.11)%	\$8,221,041	93.22%	N/A	
07/01/07	8,904,517	92.49	(3.26)	9,507,005	98.75	N/A	
07/01/08	9,013,456	90.18	(3.39)	8,803,140	88.08	N/A	
07/01/09	9,030,401	85.90	(5.35)	6,897,118	65.61	(15.08)%	
07/01/10	8,960,391	87.30	(0.99)	7,692,531	74.95	(3.90)	
07/01/11	9,130,011	86.32	(1.03)	9,197,664	86.96	(0.86)	
07/01/12	9,162,301	82.67	(2.32)	9,098,097	82.09	(2.48)	
07/01/13	9,375,780	82.04	(2.45)	10,033,499	87.79	(0.80)	
07/01/14	10,326,272	82.97	(1.82)	11,498,604	92.39	1.02	
07/01/15	11,223,285	85.72	(1.44)	11,638,319	88.89	(0.45)	

#### **State Patrol Retirement Fund**

07/01/06	\$618,990	96.49%	(5.69)%	\$577,507	90.03%	N/A
07/01/07	617,901	91.75	(7.20)	649,181	96.40	N/A
07/01/08	595,082	85.79	(10.09)	589,379	84.96	N/A
07/01/09	584,501	80.58	(12.16)	450,060	62.05	(24.21)%
07/01/10	567,211	83.00	(7.84)	488,870	71.54	(15.05)
07/01/11	563,046	80.33	(5.25)	568,279	81.08	(4.75)
07/01/12	554,244	72.84	(11.52)	549,956	72.27	(11.95)
07/01/13	552,319	74.45	(8.68)	593,201	79.96	(4.33)
07/01/14	597,870	74.69	(8.58)	667,340	83.37	(1.52)
07/01/15	639,863	76.81	(7.98)	664,530	79.77	(5.52)

* Data not available for fiscal years 2006-2008.

		Actuarial Basi	s		Market Value I	Basis
Actuarial Valuation Date	Assets	Funded Ratio	Contribution Sufficiency/ (Deficiency)	Assets	Funded Ratio	Contribution Sufficiency/ (Deficiency)*
Correctional	Employees Re	tirement Fu	nd			
07/01/06	\$535,357	82.68%	(9.67)%	\$516,217	79.73%	N/A
07/01/07	559,852	79.04	(8.94)	595,057	84.01	N/A
07/01/08	572,719	75.32	(6.56)	565,180	74.33	N/A
07/01/09	590,339	71.88	(6.05)	456,783	55.62	(9.77)%
07/01/10	603,863	70.95	(4.73)	525,245	61.71	(6.99)
07/01/11	637,027	70.23	(5.30)	646,582	71.29	(5.02)
07/01/12	663,713	68.55	(4.58)	659,523	68.12	(4.71)
07/01/13	701,091	68.33	(5.41)	747,157	72.82	(3.97)
07/01/14	790,304	70.41	(4.48)	877,056	78.14	(1.86)
07/01/15	878,624	70.90	(5.46)	909,002	73.35	(4.56)
Judges Retire	ment Fund					
07/01/06	\$151,850	75.06%	(2.64)%	\$138,150	68.29%	N/A
07/01/07	153,562	71.66	(5.63)	159,363	74.37	N/A
07/01/08	147,542	63.70	(2.45)	146,088	63.07	N/A
07/01/09	147,120	60.84	(3.73)	114,690	47.43	(8.50)%
07/01/10	144,728	60.16	(3.62)	126,201	52.46	(6.41)
07/01/11	145,996	58.72	(5.17)	148,504	59.73	(4.78)
07/01/12	144,898	51.46	(13.50)	144,086	51.17	(13.68)
07/01/13	144,918	50.94	(11.46)	155,398	54.62	(9.64)
07/01/14	157,528	52.82	(10.24)	175,556	58.87	(7.27)
07/01/15	168,235	53.30	(11.89)	174,580	55.31	(10.85)

The Legislators Retirement Fund is financed primarily on a pay-as-you-go basis, so it is not presented here.

### Schedule of Contributions from the Employer(s) and Other Contributing Entities

Last Ten Years (Dollars in thousands)

Year Ended June 30	Actuarially Required Contribution Rate (A)	Actual Covered Payroll (B)	Actual Member Contributions (C)	Annual Required Contributions [(A)x(B)]-(C)]	Actual Employer Contributions	Percent Contributed
State En	nployees Retirem	ent Fund				
2006	10.55%	\$2,016,588	\$85,379	\$127,371	\$82,645	64.88%
2007	10.11	2,095,310	89,447	122,389	86,492	70.67
2008	11.76	2,256,528	99,280	166,088	96,746	58.25
2009	12.39	2,329,499	108,866	179,759	107,211	59.64
2010	14.85	2,327,398	115,180	230,439	113,716	49.35
2011	10.99	2,440,580	122,029	146,191	118,563	81.10
2012	11.03	2,367,160	118,358	142,740	115,159	80.68
2013	12.32	2,483,000	124,150	181,756	121,673	66.94
2014	12.45	2,620,660	131,033	195,239	128,037	65.58
2015	12.82	2,714,418	149,293	198,695	146,333	73.65
State Pa	trol Retirement I	Fund				
2006	19.84%	\$57,765	\$4,719	\$6,741	\$7,055	104.66%
2007	26.69	61,498	4,987	11,427	7,461	65.30
2008	29.90	60,029	5,594	12,355	8,279	67.01
2009	34.49	61,511	6,216	14,999	9,178	61.19

#### 2010 38.16 63,250 6,726 17,410 10,104 58.04 63,250 2011 33.84 6,578 14,826 9,873 66.59 2012 36.25 62,524 7,753 14,912 11,620 77.92 62,121 7,703 11,482 2013 42.52 18,711 61.37 7,930 2014 41.24 63,952 18,444 12,894* 69.91 2015 43.56 68,463 9,174 20,648 14,763* 71.50

#### **Correctional Employees Retirement Fund**

2006	17.71%	\$145,879	\$8,964	\$16,871	\$12,152	72.03%
2007	23.34	167,727	10,032	29,115	13,927	47.83
2008	24.44	194,391	12,775	34,734	18,623	53.62
2009	23.66	193,445	14,031	31,738	20,126	63.41
2010	24.85	192,450	15,267	32,557	21,988	67.54
2011	25.43	197,702	17,002	33,274	23,892	71.80
2012	26.00	200,035	17,203	34,806	24,188	69.49
2013	25.28	204,198	17,561	34,060	24,632	72.32
2014	26.11	219,244	18,855	38,390	26,468	68.95
2015	26.43	231,440	21,061	40,109	29,480	73.50

* Includes supplemental state aid of \$1 million

Judges Retirement           2006         29.14           2007         30.73           2008         33.70           2009         30.33           2010         31.53           2011         31.60           2012         33.13           2013         41.53           2014         42.44           2015         41.20	4%       \$36,529         3       36,195         3       38,296         3       39,444         3       39,291         5       40,473         5       38,644         2       39,888         2       41,893	\$2,866 2,792 2,861 2,978 2,988 3,010 2,931 3,037 3,578 3,629	\$7,779 8,331 10,045 8,985 9,400 9,804 9,879 13,524 14,193 14,298	\$7,336 7,572 7,936 8,219 8,283 8,297 7,922 8,177 9,426 9,776	94.30% 90.88 79.00 91.47 88.11 84.63 80.19 60.46 66.41 68.37
2007         30.7           2008         33.7           2009         30.3           2010         31.5           2011         31.6           2012         33.1           2013         41.5           2014         42.4           2015         41.20	3       36,195         3       38,296         3       39,444         3       39,291         5       40,473         5       38,644         2       39,888         2       41,893	2,792 2,861 2,978 2,988 3,010 2,931 3,037 3,578	8,331 10,045 8,985 9,400 9,804 9,879 13,524 14,193	7,572 7,936 8,219 8,283 8,297 7,922 8,177 9,426	90.88 79.00 91.47 88.11 84.63 80.19 60.46 66.41
2008         33.70           2009         30.33           2010         31.53           2011         31.60           2012         33.13           2013         41.53           2014         42.43           2015         41.20	38,296         39,444         39,291         40,473         38,644         239,888         241,893	2,861 2,978 2,988 3,010 2,931 3,037 3,578	10,045 8,985 9,400 9,804 9,879 13,524 14,193	7,936 8,219 8,283 8,297 7,922 8,177 9,426	79.00 91.47 88.11 84.63 80.19 60.46 66.41
2009         30.3           2010         31.5           2011         31.6           2012         33.1           2013         41.5           2014         42.4           2015         41.20	3       39,444         3       39,291         5       40,473         5       38,644         2       39,888         2       41,893	2,978 2,988 3,010 2,931 3,037 3,578	8,985 9,400 9,804 9,879 13,524 14,193	8,219 8,283 8,297 7,922 8,177 9,426	91.47 88.11 84.63 80.19 60.46 66.41
2010       31.53         2011       31.60         2012       33.13         2013       41.52         2014       42.44         2015       41.20	3       39,291         40,473       38,644         39,888       39,888         2       41,893	2,988 3,010 2,931 3,037 3,578	9,400 9,804 9,879 13,524 14,193	8,283 8,297 7,922 8,177 9,426	88.11 84.63 80.19 60.46 66.41
2011     31.60       2012     33.11       2013     41.52       2014     42.42       2015     41.20	540,473538,644239,888241,893	3,010 2,931 3,037 3,578	9,804 9,879 13,524 14,193	8,297 7,922 8,177 9,426	84.63 80.19 60.46 66.41
2012     33.11       2013     41.52       2014     42.42       2015     41.20	540,473538,644239,888241,893	3,010 2,931 3,037 3,578	9,879 13,524 14,193	8,297 7,922 8,177 9,426	80.19 60.46 66.41
2013     41.52       2014     42.42       2015     41.20	538,644239,888241,893	3,037 3,578	13,524 14,193	8,177 9,426	60.46 66.41
2014 42.42 2015 41.20	2 41,893	3,578	14,193	9,426	66.41
2015 41.20	,			,	
	5 43,449	3,629		9,776	68.37
			,	,	
Legislators Retire	ement Fund***				
2006 112.64	\$2,894	\$264	\$2,995	\$5,684	189.78%
2007 111.24	4 2,380	239	2,408	1,772	73.59
2008 171.10	) 1,993	180	3,230	2,217	68.64
2009 243.2	1,963	248	4,526	1,269	28.04
2010 413.00	) 1,877	171	7,582	1,975	26.05
2011 432.92	2 1,774	160	7,520	2,805	37.30
2012 1,320.9	5 1,378	124	18,079	3,935	21.77
2013 1,340.00	) 1,233	111	16,411	3,399	20.71
2014 1,887.98	3 1,122	101	21,082	3,436	16.30
2015**** 2,287.58	3 1,700	153	38,736	3,216	8.30

#### Elective State Officers Retirement Fund***

2006	\$465	<b>\$</b> 0	\$0	\$465	\$417	89.66%
2007	477	0	0	477	427	89.57
2008	506	0	0	506	435	85.92
2009	558	0	0	558	442	79.28
2010	601	0	0	601	453	75.37
2011	644	0	0	644	460	71.54
2012	1,269	0	0	1,269	466	36.73
2013	991	0	0	991	470	47.43

** For the Legislators and Elective State Officers Retirement Funds, actual employer contributions include contributions from the state's General Fund.

*** Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes.

**** Actual member contributions include a member repayment of a prior year employee contribution refund. Actual covered payroll is calculated based on member contributions.

MSRS 2015 Comprehensive Annual Financial Report - Actuarial Section

### Schedule of Active Member Valuation Data

Last Ten Fiscal Years

Date         Count         Annual Payroll         Average Annual Payroll           State Employces Retirement Fund           07/01/06         48,000         \$2,016,588,000         \$42,012           07/01/07         48,379         2,095,310,000         43,310           07/01/09         48,823         2,256,528,000         46,219           07/01/10         48,494         2,327,398,000         47,551           07/01/11         47,955         2,440,580,000         48,815           07/01/12         48,207         2,367,160,000         48,815           07/01/13         49,121         2,483,000,000         49,601           07/01/15         49,037         2,714,418,000         53,149           State Patrol Retirement Fund           07/01/07         844         61,498,000         72,865           07/01/08         840         60,029,000         71,463           07/01/09         876         61,511,000         70,218           07/01/10         848         63,250,000         74,587           07/01/10         848         63,250,000         74,587           07/01/10         848         63,250,000         74,587           07/01/11         862	Percent Increas			Active Member	Actuarial Valuation
07/01/06       48,000       \$2,016,588,000       \$42,012         07/01/07       48,379       2,095,310,000       43,310         07/01/08       48,823       2,256,528,000       46,219         07/01/09       48,989       2,327,398,000       47,591         07/01/10       48,494       2,327,398,000       48,191         07/01/12       48,207       2,367,160,000       48,815         07/01/13       49,121       2,483,000,000       49,601         07/01/15       49,037       2,714,418,000       53,149    State Patrol Retirement Fund          07/01/06       851       \$57,765,000       \$67,879         07/01/15       49,037       2,714,418,000       72,865         07/01/07       844       61,498,000       72,865         07/01/10       848       63,250,000       71,463         07/01/10       848       63,250,000       74,587         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       74,587         07/01/11       843       68,463,000       78,927         O//01/13       845       62,121,000       72,171         07/01/15	y In Average Pay	Average Annual Pay	Annual Payroll	Count	Date
07/01/07       49,379       2,095,310,000       43,310         07/01/08       48,823       2,256,528,000       46,219         07/01/09       48,989       2,329,499,000       47,551         07/01/10       48,494       2,327,398,000       47,954         07/01/11       47,955       2,440,580,000       48,191         07/01/12       48,207       2,367,160,000       48,815         07/01/13       49,121       2,483,000,000       49,601         07/01/15       49,037       2,714,418,000       53,149    State Patrol Retirement Fund          07/01/06       851       \$57,765,000       \$67,879         07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/10       848       63,250,000       71,369         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       74,587         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843				etirement Fund	State Employees R
07/01/07       48,379       2,095,310,000       43,310         07/01/08       48,823       2,256,528,000       46,219         07/01/09       48,989       2,329,499,000       47,551         07/01/10       48,494       2,327,398,000       47,951         07/01/11       47,955       2,440,580,000       48,191         07/01/12       48,207       2,367,160,000       48,815         07/01/13       49,121       2,483,000,000       49,601         07/01/15       49,037       2,714,418,000       53,149    State Patrol Retirement Fund          07/01/06       851       \$57,765,000       \$67,879         07/01/10       844       61,498,000       72,865         07/01/07       844       61,511,000       70,218         07/01/10       848       63,250,000       71,369         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/12       823       62,524,000       76,883         07/01/12       823       63,952,000       74,727         07/01/13       845       63,952,000       74,727         07/01/15       843	1.41%	\$42.012	\$2,016,588,000	48.000	07/01/06
07/01/08       48,823       2,256,528,000       46,219         07/01/09       48,989       2,329,499,000       47,551         07/01/10       48,494       2,327,398,000       48,191         07/01/12       48,207       2,367,160,000       48,815         07/01/13       49,121       2,483,000,000       49,601         07/01/15       49,037       2,714,418,000       50,952         07/01/15       49,037       2,714,418,000       53,149    State Patrol Retirement Fund          07/01/06       851       \$57,765,000       \$67,879         07/01/10       844       61,498,000       72,865         07/01/10       844       63,250,000       74,285         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       74,587         07/01/12       823       62,524,000       76,883         07/01/12       823       62,524,000       76,883         07/01/12       823       62,524,000       74,887         07/01/13       845       63,952,000       74,727         07/01/14       858       63,952,000       74,727         07/01/15       843	3.09				
07/01/09       49,989       2,329,499,000       47,551         07/01/10       48,494       2,327,398,000       47,994         07/01/11       47,955       2,440,580,000       48,191         07/01/12       48,207       2,367,160,000       48,815         07/01/13       49,121       2,483,000,000       49,601         07/01/15       49,037       2,714,418,000       53,149         State Patrol Retirement Fund         07/01/06       851       \$57,765,000       \$67,879         07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/10       848       63,250,000       74,587         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927	6.71				
07/01/10       48,494       2,327,398,000       47,994         07/01/11       47,955       2,440,580,000       48,191         07/01/12       48,207       2,367,160,000       48,815         07/01/13       49,121       2,483,000,000       49,601         07/01/15       49,037       2,714,418,000       50,952         07/01/15       49,037       2,714,418,000       53,149    State Patrol Retirement Fund          07/01/06       851       \$57,765,000       \$67,879         07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/10       848       63,250,000       74,587         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       74,587         07/01/12       823       62,524,000       76,883         07/01/13       845       63,952,000       74,727         07/01/15       843       68,463,000       78,927	2.88			-	
07/01/11       47,955       2,440,580,000       48,191         07/01/12       48,207       2,367,160,000       48,815         07/01/13       49,121       2,483,000,000       49,601         07/01/14       49,663       2,620,660,000       50,952         07/01/15       49,037       2,714,418,000       53,149         State Patrol Retirement Fund         07/01/06       851       \$57,765,000       \$67,879         07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/09       876       61,511,000       70,218         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/15       843       68,463,000       78,927	0.93				
07/01/12       48,207       2,367,160,000       48,815         07/01/13       49,121       2,483,000,000       49,601         07/01/14       49,663       2,620,660,000       50,952         07/01/15       49,037       2,714,418,000       53,149    State Patrol Retirement Fund          07/01/06       851       \$57,765,000       \$67,879         07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       74,587         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927	0.41				
07/01/13       49,121       2,483,000,000       49,601         07/01/14       49,663       2,620,660,000       50,952         07/01/15       49,037       2,714,418,000       53,149         State Patrol Retirement Fund         07/01/06       851       \$57,765,000       \$67,879         07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/09       876       61,511,000       70,218         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       74,587         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/15       843       63,952,000       74,727         07/01/15       843       63,952,000       78,927	1.29				
07/01/14 49,663 2,620,660,000 50,952 07/01/15 49,037 2,714,418,000 53,149 State Patrol Retirement Fund 07/01/06 851 \$57,765,000 \$67,879 07/01/07 844 61,498,000 72,865 07/01/08 840 60,029,000 71,463 07/01/09 876 61,511,000 70,218 07/01/10 848 63,250,000 74,587 07/01/11 862 63,250,000 74,587 07/01/12 823 62,524,000 76,883 07/01/13 845 62,121,000 72,171 07/01/13 845 62,121,000 72,171 07/01/14 858 63,952,000 74,727 07/01/15 843 68,463,000 78,927	1.61				
07/01/15       49,037       2,714,418,000       53,149         State Patrol Retirement Fund         07/01/06       851       \$57,765,000       \$67,879         07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/09       876       61,511,000       70,218         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       63,952,000       74,727         07/01/15       843       68,463,000       78,927	2.72	· · · · · · · · · · · · · · · · · · ·			, ,
07/01/06       851       \$57,765,000       \$67,879         07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/09       876       61,511,000       70,218         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927	4.31				
07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/09       876       61,511,000       70,218         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927				ment Fund	State Patrol Retire
07/01/07       844       61,498,000       72,865         07/01/08       840       60,029,000       71,463         07/01/09       876       61,511,000       70,218         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927	2.29%	\$67.879	\$57,765,000	851	07/01/06
07/01/08       840       60,029,000       71,463         07/01/09       876       61,511,000       70,218         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927	7.35				
07/01/09       876       61,511,000       70,218         07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927	(1.92)				
07/01/10       848       63,250,000       74,587         07/01/11       862       63,250,000       71,369         07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927	(1.74)	·	· · ·	876	07/01/09
07/01/12       823       62,524,000       76,883         07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927	6.22			848	07/01/10
07/01/13       845       62,121,000       72,171         07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927    Correctional Employees Retirement Fund          07/01/06       3,910       \$145,879,000       \$37,309         07/01/07       4,332       167,727,000       38,718	(4.31)		63,250,000	862	07/01/11
07/01/14       858       63,952,000       74,727         07/01/15       843       68,463,000       78,927         Correctional Employees Retirement Fund         07/01/06       3,910       \$145,879,000       \$37,309         07/01/07       4,332       167,727,000       38,718	7.73	76,883	62,524,000	823	07/01/12
07/01/15         843         68,463,000         78,927           Correctional Employees Retirement Fund           07/01/06         3,910         \$145,879,000         \$37,309           07/01/07         4,332         167,727,000         \$8,718	(6.13)	72,171	62,121,000	845	07/01/13
Correctional Employees Retirement Fund           07/01/06         3,910         \$145,879,000         \$37,309           07/01/07         4,332         167,727,000         \$38,718	3.54	74,727	63,952,000	858	07/01/14
07/01/06         3,910         \$145,879,000         \$37,309           07/01/07         4,332         167,727,000         38,718	5.62	78,927	68,463,000	843	07/01/15
07/01/07 4,332 167,727,000 38,718			Fund	oyees Retirement ]	Correctional Empl
07/01/07 4,332 167,727,000 38,718	1.69%	¢27.200	¢145.070.000	3 010	07/01/04
0//01/08 4,520 194,391,000 43,007	3.78				
07/01/00 1402 102 145 000 12 025	11.08				
07/01/094,403193,445,00043,93507/01/104,268192,450,00045,091	2.16 2.63	· · · · · · · · · · · · · · · · · · ·	· · ·	· · · · · · · · · · · · · · · · · · ·	

4,268	192,450,000	45,091	2.63
4,332	197,702,000	44,200	(1.97)
4,276	200,035,000	47,358	7.14
4,384	204,198,000	46,411	(2.00)
4,504	219,244,000	48,153	3.75
4,449	231,440,000	50,671	5.23
	4,332 4,276 4,384 4,504	4,332197,702,0004,276200,035,0004,384204,198,0004,504219,244,000	4,332197,702,00044,2004,276200,035,00047,3584,384204,198,00046,4114,504219,244,00048,153

Actuarial Valuation Date	Active Member Count	Annual Payroll	Average Annual Pay	Percent Increase In Average Pay
Judges Retirement	t Fund			
07/01/06	303	\$36,529,000	\$120,558	(1.05)%
07/01/07	308	36,195,000	117,516	(2.52)
07/01/08	308	38,296,000	124,338	5.80
07/01/09	312	39,444,000	126,423	1.68
07/01/10	312	39,291,000	125,933	(0.39)
07/01/11	308	40,473,000	127,032	0.87
07/01/12	308	38,644,000	127,844	0.64
07/01/13	309	39,888,000	127,391	(0.35)
07/01/14	316	41,893,000	133,732	4.98
07/01/15	312	43,449,000	139,052	3.98
Legislators Retirer	nent Fund*			
Legislators Retirer	nent Fund			
07/01/06	76	\$2,894,000	\$38,079	(1.45)%
07/01/07	54	2,380,000	44,074	15.74
07/01/08	52	1,993,000	38,327	(13.04)
07/01/09	48	1,963,000	40,900	6.71
07/01/10	47	1,877,000	39,936	(2.35)
07/01/11	38	1,774,000	41,241	3.27
07/01/12	34	1,378,000	38,328	(7.06)
07/01/13	24	1,233,000	39,033	1.84
07/01/14	24	1,122,000	37,384	(4.22)
07/01/15	23	1,700,000**	41,313	10.51

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes. There have been no active members in the Elective State Officers Retirement Fund between fiscal year 2006 and the merger.

** Actual member contributions include a member repayment of a prior year employee contribution refund. Actual payroll on this schedule is calculated based on member contributions.

### Schedule of Retirees and Beneficiaries

Last Ten Fiscal Years

Valuation	Added	to Rolls	Remove	d from Rolls	Rolls at F	Fiscal Year End	% Change	Average
Year Ended	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances	in Annual Allowances	Annual Allowance
State Em	ployees I	Retirement F	und					
06/30/06	1,945	\$16,683,000	1,108	\$6,254,000	24,204	\$366,797,000	1.77%	\$15,154
06/30/07	2,090	20,344,000	948	6,223,000	25,346	392,058,000	6.89	15,468
06/30/08	2,107	21,456,000	1,007	7,102,000	26,446	418,757,000	6.81	15,834
06/30/09	1,873	18,931,000	976	7,210,000	27,343	445,792,000	6.46	16,304
06/30/10	2,071	23,023,000	979	8,116,000	28,435	473,447,000	6.20	16,650
06/30/11	2,699	27,821,000	970	9,607,000	30,164	505,573,000	6.79	16,761
06/30/12	2,971	32,057,768	1,160	11,467,895	31,975	552,088,000	9.20	17,266
06/30/13	2,291	24,459,318	980	9,758,992	33,286	586,256,000	6.19	17,613
06/30/14	2,611	19,878,596	1,168	9,734,906	34,729	623,942,000	6.43	17,966
06/30/15	2,860	35,485,229	1,113	11,270,174	36,476	665,821,000	6.71	18,254
State Pat	rol Retir	ement Fund						
06/30/06	69	\$1,614,000	48	\$569,000	846	\$38,767,000	2.30%	\$45,824
06/30/07	69	1,506,000	39	326,000	876	40,581,000	4.68	46,325
06/30/08	49	1,503,000	29	414,000	896	42,804,000	5.48	47,772
06/30/09	33	1,080,000	21	434,000	908	44,480,000	3.92	48,987
06/30/10	37	1,041,000	21	413,000	924	46,119,000	3.68	49,912
06/30/11	36	1,064,000	28	723,000	932	47,844,000	3.74	51,335
06/30/12	51	1,704,000	20	541,200	963	50,007,000	4.52	51,928
06/30/13	45	1,321,942	25	524,505	983	52,057,000	4.10	52,957
06/30/14	64	1,270,181	62	900,675	985	53,697,000	3.15	54,515
06/30/15	68	2,295,671	26	729,264	1,027	55,465,000	3.29	54,007
Correctio	onal Emp	oloyees Retire	ement Fu	nd				
06/30/06	143	\$1,650,000	47	\$160,000	1,375	\$26,161,000	2.17%	\$19,026
06/30/07	174	2,061,000	47	317,000	1,502	28,565,000	9.19	19,018
06/30/08	135	1,580,000	37	284,000	1,600	30,932,000	8.29	19,332
06/30/09	139	1,871,000	30	190,000	1,709	33,239,000	7.46	19,449
06/30/10	173	2,116,000	23	175,000	1,859	36,078,000	8.54	19,407
06/30/11	195	2,103,000	38	330,000	2,016	39,116,000	8.42	19,403
06/30/12	222	1,804,146	41	395,124	2,197	42,571,000	8.83	19,377
06/30/13	214	2,524,880	37	327,671	2,374	46,226,000	8.59	19,472
06/30/14	208	2,072,392	65	489,187	2,517	50,842,000	9.99	20,199
0 6 10 0 14 -	<b>a</b> c <b>-</b>				· - · -			

494,457

43

2,769

54,909,000

19,830

8.00

06/30/15

295

4,209,512

Valuation Year Ended	<u>Addec</u> Number	l to Rolls Annual Allowances	Removed Number	d from Rolls Annual Allowances	Rolls at F	iscal Year End Annual Allowances	% Change in Annual Allowances	Average Annual Allowance
Judges F	Retireme	nt Fund						
06/30/06	26	\$769,000	20	\$546,000	261	\$14,260,000	1.32%	\$54,636
06/30/07	22	542,000	20	427,000	263	14,516,000	1.80	55,194
06/30/08	25	833,000	9	272,000	279	15,116,000	4.13	54,179
06/30/09	17	580,000	11	187,000	285	16,261,000	7.57	57,056
06/30/10	20	933,000	14	223,000	291	17,058,000	4.90	58,619
06/30/11	25	780,000	19	831,000	297	17,585,000	3.09	59,209
06/30/12	24	784,130	7	367,857	314	18,539,000	5.43	59,041
06/30/13	32	1,088,182	14	437,495	332	19,772,000	6.65	59,554
06/30/14	28	764,654	25	328,523	335	20,802,000	5.21	62,096
06/30/15	23	1,058,885	12	487,967	346	21,893,000	5.24	63,275
Legislate	ors Retir	ement Fund*						
06/30/06	12	\$537,000	12	\$65,000	319	\$6,094,000	2.56%	\$19,103
06/30/07	34	341,000	13	46,000	340	6,390,000	4.86	18,794
06/30/08	17	177,000	11	85,000	346	6,786,000	6.20	19,613
06/30/09	22	289,000	10	159,000	358	7,016,000	3.39	19,598
06/30/10	19	164,000	18	224,000	359	7,159,000	2.00	19,942
06/30/11	23	340,000	14	144,000	368	7,464,000	4.26	20,283
06/30/12	15	173,314	16	157,452	367	7,721,000	3.44	21,038
06/30/13	18	315,685	23	218,497	362	7,826,000	1.36	21,619
06/30/14	32	653,406	19	180,791	375	8,407,000	1.35	22,419
06/30/15	16	141,320	14	108,325	377	8,441,000	0.40	22,390
Elective	State Of	ficers Retiren	nent Fund	*				
06/30/06	0	\$0	0	\$0	15	\$409,000	4.60%	\$27,267
06/30/07	0	0	0	0	15	419,000	2.44	27,933
06/30/08	0	0	0	0	15	430,000	2.63	28,667
06/30/09	0	0	0	0	15	440,000	2.33	29,333
06/30/10	0	0	0	0	15	451,000	2.50	30,067
06/30/11	1	12	2	32,164	14	460,000	2.00	32,857
0 4 100 110	0	0	0	0		150,000	(0, 10)	00 <b>-</b> 4 4

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes.

14

14

0

0

458,000

469,000

(0.43)

2.40

MSRS 2015 Comprehensive Annual Financial Report - Actuarial Section

0

0

0

0

06/30/12

06/30/13

0

0

32,714

33,500

### **Solvency** Test

Last Ten Fiscal Years (Dollars in thousands)

		Aggregate Accr	ued Liabilities						
Actuarial	(1) Active	(2) Retired	(3) Active Member	Total Actuarial			on Covered b orted Assets	у	
Valuation	Member	and	(Employer	Accrued	Reported				Funded
Date	Contributions	Beneficiaries	Financed)	Liabilities	Assets	(1)	(2)	(3)	Ratio

#### State Employees Retirement Fund

07/01/06	\$966,951	\$3,689,443	\$4,162,767	\$8,819,161	\$8,486,756	100.0%	100.0%	92.0%	96.2%
07/01/07	1,001,316	3,963,536	4,662,453	9,627,305	8,904,517	100.0	100.0	84.5	92.5
07/01/08	1,041,731	4,251,341	4,701,530	9,994,602	9,013,456	100.0	100.0	79.1	90.2
07/01/09	1,102,082	4,496,247	4,914,431	10,512,760	9,030,401	100.0	100.0	69.8	85.9
07/01/10	1,155,473	4,535,401	4,573,197	10,264,071	8,960,391	100.0	100.0	71.5	87.3
07/01/11	982,365	4,982,212	4,611,904	10,576,481	9,130,011	100.0	100.0	68.6	86.3
07/01/12	1,044,810	5,489,756	4,548,661	11,083,227	9,162,301	100.0	100.0	57.8	82.7
07/01/13	1,090,373	5,807,381	4,530,887	11,428,641	9,375,780	100.0	100.0	54.7	82.0
07/01/14	1,128,164	6,471,998	4,844,964	12,445,126	10,326,272	100.0	100.0	56.3	83.0
07/01/15	1,161,369	6,949,000	4,982,333	13,092,702	11,223,285	100.0	100.0	62.5	85.7

#### State Patrol Retirement Fund

07/01/06	\$45,709	\$413,424	\$182,346	\$641,479	\$618,990	100.0%	100.0%	87.7%	103.6%
07/01/07	47,365	431,969	194,110	673,444	617,901	100.0	100.0	71.4	91.8
07/01/08	49,380	445,217	199,089	693,686	595,082	100.0	100.0	50.5	85.8
07/01/09	52,557	466,817	205,960	725,334	584,501	100.0	100.0	31.6	80.6
07/01/10	56,699	441,901	184,760	683,360	567,211	100.0	100.0	37.1	83.0
07/01/11	55,513	454,811	190,574	700,898	563,046	100.0	100.0	27.7	80.3
07/01/12	59,777	513,106	188,072	760,955	554,244	100.0	96.4	0.0	72.8
07/01/13	63,504	507,005	171,341	741,850	552,319	100.0	96.4	0.0	74.5
07/01/14	67,030	537,866	195,525	800,421	597,870	100.0	98.7	0.0	74.7
07/01/15	67,543	570,541	194,949	833,033	639,863	100.0	100.0	0.9	76.8

#### **Correctional Employees Retirement Fund**

07/01/06	\$67,221	\$290,370	\$289,889	\$647,480	\$535,357	100.0%	100.0%	61.3%	82.7%
07/01/07	72,259	319,813	316,220	708,292	559,852	100.0	100.0	53.1	79.0
07/01/08	81,233	338,511	340,619	760,363	572,719	100.0	100.0	44.9	75.3
07/01/09	90,572	368,390	362,288	821,250	590,339	100.0	100.0	36.3	71.9
07/01/10	100,323	383,387	367,376	851,086	603,863	100.0	100.0	32.7	71.0
07/01/11	93,251	417,110	396,651	907,012	637,027	100.0	100.0	31.9	70.2
07/01/12	105,973	456,495	405,698	968,166	663,713	100.0	100.0	25.0	68.6
07/01/13	113,276	498,718	414,104	1,026,098	701,091	100.0	100.0	21.5	68.3
07/01/14	122,102	543,049	457,323	1,122,474	790,304	100.0	100.0	27.4	70.4
07/01/15	126,918	634,592	477,748	1,239,258	878,624	100.0	100.0	24.5	70.9

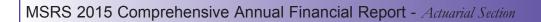
		Aggregate Accr	ued Liabilities	i	_				
Actuarial	(1) Active	(2) Retired	(3) Active Member	Total Actuarial			on Covered	2	
Valuation Date	Member Contributions	and Beneficiaries	(Employer Financed)	Accrued Liabilities	Reported Assets	(1)	(2)	(3)	Funded Ratio
Judges F	Retirement 1	Fund							
07/01/06	\$23,179	\$112,627	\$66,495	\$202,301	\$151,850	100.0%	100.0%	24.1%	75.1%
07/01/07	24,562	114,005	75,730	214,297	153,562	100.0	100.0	9.8	71.7
07/01/08	25,450	124,780	81,393	231,623	147,542	100.0	98.6	0.0	63.7
07/01/09	27,419	133,356	81,040	241,815	147,120	100.0	89.8	0.0	60.8
07/01/10	28,685	135,184	76,710	240,579	144,728	100.0	85.8	0.0	60.2
07/01/11	25,328	141,762	81,540	248,630	145,996	100.0	85.1	0.0	58.7
07/01/12	26,703	169,262	85,611	281,576	144,898	100.0	69.8	0.0	51.5
07/01/13	26,359	180,641	77,513	284,513	144,918	100.0	65.6	0.0	50.9
07/01/14	28,112	190,570	79,551	298,233	157,528	100.0	67.9	0.0	52.8
07/01/15	29,164	205,115	81,354	315,633	168,235	100.0	67.8	0.0	53.3
Legislate	ors Retirem	ent Fund*							

07/01/06	\$7,050	\$48,955	\$25,356	\$81,361	\$48,504	100.0%	84.7%	0.0%	59.6%
07/01/07	6,542	53,180	26,727	86,449	44,869	100.0	72.1	0.0	51.9
07/01/08	6,266	54,926	24,939	86,131	39,209	100.0	60.0	0.0	45.5
07/01/09	6,059	61,327	23,045	90,431	28,663	100.0	36.9	0.0	31.7
07/01/10	5,993	59,229	21,014	86,236	26,821	100.0	35.2	0.0	31.1
07/01/11**	2,622	62,967	19,445	85,034	19,140	100.0	26.2	0.0	22.5
07/01/12**	2,498	146,582	98,577	247,657	15,523	100.0	8.9	0.0	6.3
07/01/13	1,930	149,331	84,616	235,877	11,493	100.0	6.4	0.0	4.9
07/01/14	2,011	162,938	85,911	250,860	8,258	100.0	3.8	0.0	3.3
07/01/15	2,024	154,999	73,196	230,219	3,430	100.0	0.9	0.0	1.5

#### **Elective State Officers Retirement Fund***

07/01/06	\$36	\$3,716	\$218	\$3,970	\$207	100.0%	4.6%	0.0%	5.2%
07/01/07	36	3,691	242	3,969	212	100.0	4.8	0.0	5.3
07/01/08	36	3,605	267	3,908	212	100.0	4.9	0.0	5.4
07/01/09	36	3,570	280	3,886	213	100.0	5.0	0.0	5.5
07/01/10	36	3,476	270	3,782	214	100.0	5.1	0.0	5.7
07/01/11**	0	3,381	312	3,693	0	0.0	0.0	0.0	0.0
07/01/12**	0	8,036	871	8,907	0	0.0	0.0	0.0	0.0
07/01/13	0	7,751	844	8,595	0	0.0	0.0	0.0	0.0

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes. ** Amounts reported are based on actuarial valuation results using GASB-compliant (as of the valuation date) alternative assumptions.



161

### Summary of Unfunded Actuarial Accrued Liabilities (UAAL)

Last Ten Fiscal Years (Dollars in thousands)

Actuarial Valuation Date	Actuarial Accrued Liabilities	Actuarial Value of Assets	Unfunded Actuarial Accrued Liabilities	Member Payroll	UAAL as a Percent of Payroll
Stata Employ	yees Retirement Fund				
07/01/06	\$8,819,161	\$8,486,756	\$332,405	\$2,016,588	16.48%
07/01/07	9,627,305	8,904,517	722,788	2,095,310	34.50
07/01/08	9,994,602	9,013,456	981,146	2,256,528	43.48
07/01/09	10,512,760	9,030,401	1,482,359	2,329,499	63.63
07/01/10	10,264,071	8,960,391	1,303,680	2,327,398	56.01
07/01/11	10,576,481	9,130,011	1,446,470	2,440,580	59.27
07/01/12	11,083,227	9,162,301	1,920,926	2,367,160	81.15
07/01/13	11,428,641	9,375,780	2,052,861	2,483,000	82.68
07/01/14	12,445,126	10,326,272	2,118,854	2,620,660	80.85
07/01/15	13,092,702	11,223,285	1,869,417	2,714,418	68.87
State Patrol	Retirement Fund				
		<b>*</b> <10.000	<b>****</b>		20.020/
07/01/06	\$641,479	\$618,990	\$22,489	\$57,765	38.93%
07/01/07	673,444	617,901	55,543	61,498	90.32
07/01/08	693,686	595,082	98,604	60,029	164.26
07/01/09	725,334	584,501	140,833	61,511	228.96
07/01/10	683,360	567,211	116,149	63,250	183.63
07/01/11	700,898	563,046	137,852	63,250	217.95
07/01/12	760,955	554,244	206,711	62,524	330.61
07/01/13	741,850	552,319	189,531	62,121	305.10
07/01/14	800,421	597,870	202,551	63,952	316.72
07/01/15	833,033	639,863	193,170	68,463	282.15
		- 1			
Correctional	Employees Retirement	t Fund			
07/01/06	\$647,480	\$535,357	\$112,123	\$145,879	76.86%
07/01/07	708,292	559,852	148,440	167,727	88.50
07/01/08	760,363	572,719	187,644	194,391	96.53
07/01/09	821.250	590,399	230.851	193,445	119.34

07/01/08	760,363	572,719	187,644	194,391	96.53
07/01/09	821,250	590,399	230,851	193,445	119.34
07/01/10	851,086	603,863	247,223	192,450	128.46
07/01/11	907,012	637,027	269,985	197,702	136.56
07/01/12	968,166	663,713	304,453	200,035	152.20
07/01/13	1,026,098	701,091	325,007	204,198	159.16
07/01/14	1,122,474	790,304	332,170	219,244	151.51
07/01/15	1,239,258	878,624	360,634	231,440	155.82

Actuarial Valuation Date	Actuarial Accrued Liabilities	Actuarial Value of Assets	Unfunded Actuarial Accrued Liabilities	Member Payroll	UAAL as a Percent of Payroll
Judges Retire	ement Fund				
07/01/06	\$202,301	\$151,850	\$50,451	\$36,529	138.11%
07/01/07	214,297	153,562	60,735	36,195	167.80
07/01/08	231,623	147,542	84,081	38,296	219.56
07/01/09	241,815	147,120	94,695	39,444	240.07
07/01/10	240,579	144,728	95,851	39,291	243.95
07/01/11	248,630	145,996	102,634	40,473	253.59
07/01/12	281,576	144,898	136,678	38,644	353.69
07/01/13	284,513	144,918	139,595	39,888	349.97
07/01/14	298,233	157,528	140,705	41,893	335.86
07/01/15	315,633	168,235	147,398	43,449	339.24
Legislators R	Retirement Fund*				
07/01/06	\$81,361	\$48,504	\$32,857	\$2,894	1,135.35%
07/01/07	86,449	44,869	41,580	2,380	1,747.06
07/01/08	86,131	39,209	46,922	1,993	2,354.34
07/01/09	90,431	28,663	61,768	1,963	3,146.61
07/01/10	86,236	26,821	59,415	1,877	3,165.42
07/01/11**	216,559	19,140	197,419	1,774	11,128.47
07/01/12**	247,657	15,523	232,134	1,378	16,845.72
07/01/13	235,877	11,493	224,384	1,233	18,198.22
07/01/14	250,860	8,258	242,602	1,122	21,622.28
07/01/15***	230,219	3,430	226,789	1,700	13,340.53

#### **Elective State Officers Retirement Fund***

07/01/06	\$3,970	\$207	\$3,763	<b>\$</b> 0	N/A
07/01/07	3,969	212	3,757	0	N/A
07/01/08	3,908	212	3,696	0	N/A
07/01/09	3,886	213	3,673	0	N/A
07/01/10	3,782	214	3,568	0	N/A
07/01/11**	7,610	0	7,610	0	N/A
07/01/12**	8,907	0	8,907	0	N/A
07/01/13	8,595	0	8,595	0	N/A

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes. The Elective State Officers Retirement Fund has no active contributing members.

** Amounts reported are based on actuarial valuation results using GASB-compliant (as of the valuation date) alternative assumptions.

*** Actual member contributions include a member repayment of a prior year employee contribution refund. Member payroll on this schedule is calculated based on member contributions.

MSRS 2015 Comprehensive Annual Financial Report - Actuarial Section

### GASB Statements No. 67 and No. 68 Actuarial Valuation Results

The following pages contain information specific to the actuarial valuations performed to determine the pension liability and pension expense reported in the *Notes to the Financial Statements* in this CAFR. In addition, each employer participating in one of the MSRS defined benefit retirement plans will be allocated their proportionate share of these liability and expense amounts. State and local government employers will be required to recognize their share of the pension expense and pension liability in their financial statements.

These valuations have no bearing on measurement of pension plan funding status, or in decisions regarding contribution requirements for any plan.

### Actuary's Certification Letter

GRS

Gabriel Roeder Smith & Company Consultants & Actuaries 100 South Fifth Street Suite 1900 Minneapolis, MN 55402-1267 612.605.6200 612.605.6203 www.gabrielro

December 21, 2015

Board of Directors Minnesota State Retirement System 60 Empire Drive, Suite 300 St. Paul, MN 55103-3000

#### Re: 2015 Comprehensive Annual Financial Report (CAFR)

Dear Members of the Board:

We have previously prepared and presented to you our actuarial valuations for accounting and financial reporting purposes for the State Employees Retirement Fund (SERF), the State Patrol Retirement Fund (SPRF), the Correctional Employees Retirement Fund (CERF), the Judges Retirement Fund (JRF) and the Legislators Retirement Fund (LRF) as of June 30, 2015. These annual reports provide information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

GASB Statement No. 67 is the accounting standard that applies to the financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting requirements for state and local government employers who provide their employees (including former employees) pension benefits through a trust.

In this Comprehensive Annual Financial Report (CAFR), the Schedule of Changes in Net Pension Liabilities and Related Ratios and the Schedule of Contributions from Employers and Nonemployers in the Financial Section have been prepared by MSRS based on information included in reports on the annual actuarial valuation prepared by Gabriel Roeder Smith & Company (GRS). MSRS was responsible for preparing the Schedule of Employer Allocations and the Schedule of Pension Amounts by Employer. Reading the CAFR is not a substitute for reading the actuarial reports. In order to gain a full understanding of the actuarial condition of the system, it is important to read and understand the full actuarial reports for each of the aforementioned funds. Annual actuarial valuation reports for funding purposes as well as for accounting and financial reporting purposes are available on the MSRS website.

#### Valuation Results

The results of the June 30, 2015 GASB Statements No. 67 and No. 68 valuations are summarized in the following table (Dollars in Thousands).

					Pension	Single
	<b>Total Pension</b>	Plan Fiduciary	Net Pension		Expense/	Discount
Plan	Liability	Net Position	Liability	Ratio ⁽¹⁾	(Income)	Rate
	(a)	(b)	(a) – (b)	(b) / (a)		
SERF	\$ 13,177,712	\$ 11,638,319	\$ 1,539,393	88.32%	\$ (370,172)	7.90%
SPRF	838,235	664,530	173,705	79.28	13,518	7.90
CERF	1,563,245	909,002	654,243	58.15	38,891	6.25
JRF	410,972	174,580	236,392	42.48	17,706	5.25
LRF ⁽²⁾	144,353	3,430	140,923	2.38	5,554	3.80

⁽¹⁾Plan Fiduciary Net Position as a Percentage of Total Pension Liability ⁽²⁾The Legislators Retirement Fund is currently funded on a pay-as-you-go basis

### Actuary's Certification Letter

Members of the Board December 21, 2015 Page 2

The following actuarial assumption and plan changes were recognized this year in the valuations for GASB Statements No. 67 and No. 68 purposes:

- The single discount rate was changed from 6.82% on July 1, 2014 to 6.25% for the CERF, from 5.78% on July 1, 2014 to 5.25% for the JRF, and from 4.29% on July 1, 2014 to 3.80% for the LRF.
- For all Funds except JRF:
  - For SERF and LRF, the post-retirement benefit increase rate was changed from 2.0% per year through 2015 and 2.5% thereafter to 2.0% per year through 2043 and 2.5% thereafter.
  - For CERF, the post-retirement benefit increase rate was changed from 2.0% per year through 2065 and 2.5% thereafter to 2.0% per year indefinitely.
  - For SPRF, the post-retirement benefit increase rate was changed from 1.0% per year through 2018, 1.5% from 2019 through 2045 and 2.5% thereafter to 1.0% per year through 2031, 1.5% from 2032 through 2052 and 2.5% thereafter.
- Effective July 1, 2015, for all funds except LRF, a provision was added so that if the 2.5% (1.5% for SPRF) post-retirement benefit increase is triggered and the funding ratio (determined on a market value of assets basis) subsequently drops below 80% (75% for SPRF) or less for the most recent valuation year or 85% (80% for SPRF) or less for two consecutive years, the post-retirement benefit increase will change to 2.0% (1.0% for SPRF) until the plan again reaches a 90% (85% for SPRF) funding ratio for two consecutive years. For LRF, the post-retirement benefit increase is the same rate as the SERF.

GRS conducted an examination of the basic financial and membership data provided to us as of June 30, 2015 by MSRS, and determined that the data appears reasonable in comparison to last year, and we have relied upon the data as submitted in performing the actuarial valuation and in preparing trend data schedules. The demographic actuarial assumptions are based on experience studies prepared by a former actuary. The economic assumptions are based on a review of inflation and investment return assumptions dated September 11, 2014.

To the best of our knowledge and belief, the methods and assumptions used in the actuarial valuations meet the parameters set by generally accepted actuarial principles and procedures (ASOPs), generally accepted accounting principles (GAAP) applicable in the United States, the requirements of *Minnesota Statutes*, Section 356.215, and the requirements of the Standards for Actuarial Work established by the LCPR. In our opinion, the results of the reports reflect the actuarial position of the plans on an ongoing basis under the prescribed assumptions, methods, and procedures.

Gabriel Roeder Smith & Company

Members of the Board December 21, 2015 Page 3

Brian B. Murphy and Bonita J. Wurst are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. In addition, Mr. Murphy meets the requirements of "approved actuary" under Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (c). The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Respectfully submitted,

Brie BMarpy

Brian B. Murphy, FSA, EA, MAAA

Bonito J. Wurst

Bonita J. Wurst, ASA, EA, MAAA BBM/BJW:bd

Gabriel Roeder Smith & Company

### Summary of GASB Statements No. 67 and No. 68 Actuarial Valuation Results

As of and For the Year Ended June 30, 2015 (Dollars in thousands)

	State Employees Retirement Fund	State Patrol Retirement Fund	
Actuarial Valuation Date	June 30, 2015	June 30, 2015	
Measurement Date of the Net Pension Liability	June 30, 2015	June 30, 2015	
Net Pension Liability			
Total Pension Liability	\$13,177,712	\$838,235	
Fiduciary Net Position	11,638,319	664,530	
Net Pension Liability	\$1,539,393	\$173,705	
<b>Deferred Outflows (Inflows) of Resources</b> Deferred Outflows (Inflows) of Resources Arising from the Current Reporting Period due to:			
Differences Between Expected and Actual Experience	\$(493,197)	\$(12,855)	
Assumption Changes	0	0	
Differences Between Expected and Actual Earnings on Investments	392,927	22,564	
Total Pension Expense (Income)	\$(370,172)	\$13,518	
Single Discount Rate			
Long-Term Expected Rate of Investment Return	7.90%	7.90%	
Long-Term Municipal Bond Rate	3.80	3.80	
Single Discount Rate	7.90	7.90	
Last fiscal year for which projected benefits are fully funded (using a 100-year projection)	2115	2115	

#### **Other Information**

- Details regarding the Net Pension Liability may be found in *Required Supplementary Information* on pages 95-99 of the *Financial Section* of this report.
- Details regarding the Single Discount Rate may be found in the Notes to the Financial Statements beginning on page 91.
- Details for all other information in this schedule are on the pages that follow.

Correctional Employees Retirement Fund	Judges Retirement Fund	Legislators Retirement Fund
June 30, 2015	June 30, 2015	June 30, 2015
June 30, 2015	June 30, 2015	June 30, 2015
\$1,563,245	\$410,972	\$144,353
909,002	174,580	3,430
\$654,243	\$236,392	\$140,923

\$7,115	\$(4,366)	\$(7,303)
118,399	21,696	7,057
30,400	5,959	170
\$38,891	\$17,706	\$5,554
7.90%	7.90%	7.90%
3.80	3.80	3.80
6.25	5.25	3.80
2053	2034	2015

### Summary of Deferred Outflows (Inflows) of Resources Arising from Current Reporting Period

For the Fiscal Year Ended June 30, 2015 (Dollars in thousands)

Changes in the net pension liability from one fiscal year to the next are recognized as a pension expense, except in specific situations as outlined in GASB Statement No. 68, and presented in this schedule. In the situations noted in the schedule below, the change in net liability is considered a deferred outflow of resources or a deferred inflow of resources. The deferred outflows and inflows of resources are amortized on a straight-line basis over a specified period of time, and recognized as an expense (or income) partially in the current period and partially in future periods.

	State Employees Retirement Fund	
Deferred Outflows (Inflows) of Resources Due to Differences Between Expected and Actual Experience		
Total Difference between Expected and Actual Experience in the measurement of the Total Pension Liability	\$(493,197)	
Recognition Period: Average of the expected remaining service lives of all employees (in years)	5	
Deferred Outflows (Inflows) of Resources to be recognized in the <i>current</i> pension expense for the difference between expected and actual experience in the measurement of the Total Pension Liability	\$(98,639)	
Deferred Outflows (Inflows) of Resources to be recognized in <i>future</i> pension expenses for the difference between expected and actual experience in the measurement of the Total Pension Liability	\$(394,558)	
<b>Deferred Outflows (Inflows) of Resources Due to Changes in Actuarial Assumptions</b> Total Assumption Change (Gains) or Losses	\$0	
Recognition Period: Average of the expected remaining service lives of all employees (in years)	5	
Deferred Outflows (Inflows) of Resources to be recognized in the <i>current</i> pension expense due to assumption changes	\$0	
Deferred Outflows (Inflows) of Resources to be recognized in <i>future</i> pension expenses due to assumption changes	\$0	
Deferred Outflows (Inflows) of Resources Due to the Difference Between Expected and Actual Earnings on Pension Plan Investments		
Total Difference between projected and actual earnings on pension plan investments	\$392,927	
Recognition Period (in years)	5	
Deferred Outflows (Inflows) of Resources to be recognized in the <i>current</i> pension expense due to the difference between projected and actual investment (gains) or losses	\$78,585	
Deferred Outflows (Inflows) of Resources to be recognized in <i>future</i> pension expenses due to the difference between projected and actual investment (gains) or losses	\$314,342	

State Patrol Retirement Fur	Correctional Employees nd Retirement Fu	Judges	Legislators nd Retirement Fun	nd
\$(12,855)	\$7,115	\$(4,366)	\$(7,303)	
6	6	5	1	
\$(2,143)	\$1,186	\$(873)	\$(7,303)	
\$(10,712)	\$5,929	\$(3,493)	\$0	
\$0	\$118,399	\$21,696	\$7,057	
6	6	5	¢7,037 1	
\$0	\$19,733	\$4,339	\$7,057	
\$0	\$98,666	\$17,357	\$0	
\$22,564	\$30,400	\$5,959	\$170	
5	5	5	5	
\$4,513	\$6,080	\$1,192	\$34	
\$18,051	\$24,320	\$4,767	\$136	

_

# Summary of Pension Expense (Income)

For the Year Ended June 30, 2015 (Dollars in thousands)

	State Employees Retirement Fund	State Patrol Retirement Fund	
Service Cost	\$210,545	\$16,144	
Interest on the Total Pension Liability	1,018,035	63,753	
Current-Period Benefit Changes	0	0	
Employee Contributions	(149,293)	(9,174)	
Projected Earnings on Plan Investments	(894,112)	(51,467)	
Pension Plan Administrative Expenses	8,719	170	
Other Changes in Fiduciary Net Position	(29,470)	0	
Recognition of Outflow (Inflow) of Resources Arising from the Current Reporting Period due to:			
Difference between expected and actual experience in the measurement of the Total Pension Liability	(98,639)	(2,143)	
Assumption Changes	0	0	
Difference between projected and actual earnings on pension plan investments	78,585	4,513	
Recognition of Outflow (Inflow) of Resources Arising from Prior Reporting Periods due to:			
Difference between expected and actual experience in the measurement of the Total Pension Liability	(8,805)	(962)	
Assumption Changes	(295,462)	5,010	
Difference between projected and actual earnings on pension plan investments	(210,275)	(12,326)	
Total Pension Expense (Income)	\$(370,172)	\$13,518	

Correctional Employees Retirement Fund	Judges Retirement Fund	Legislators Retirement Fund
\$48,805	\$12,251	\$428
92,039	21,773	6,113
0	0	0
(21,061)	(3,629)	(153)
(69,024)	(13,531)	(451)
720	60	37
0	0	0
1,186	(873)	(7,303)
19,733	4,339	7,057
6,080	1,192	34
684	1,016	0
(24,511)	(1,683)	0
(15,760)	(3,209)	(208)
\$38,891	\$17,706	\$5,554

### Summary of Actuarial Methods and Assumptions

For the Year Ended June 30, 2015

#### **Actuarial Methods**

- 1. Actuarial Cost Method: Entry age normal
- 2. Asset Valuation Method: Fair value of assets
- 3. Valuation of Future Post-Retirement Benefit Increases:

#### State Employees

Benefit recipients receive a future annual 2.0% post-retirement benefit increase. If the funded ratio (determined on a market value of assets basis) reaches 90% (based on a 2.5% post-retirement benefit increase assumption) for two consecutive years, the benefit increase will revert to 2.5%. If, after reverting to a 2.5% benefit increase, the funded ratio declines to less than 80% for one year or less than 85% for two consecutive years, the benefit increase will be reduced to 2.0%.

Projections* indicate that this plan is expected to attain the funded ratio threshold required to pay a 2.5% post-retirement benefit increase in the year 2043, and that the plan will begin paying 2.5% benefit increases on January 1, 2044.

#### State Patrol

Benefit recipients receive a future annual 1.0% post-retirement benefit increase. If the funded ratio (determined on a market value of assets basis) reaches 85% (based on a 1.5% post-retirement benefit increase assumption) for two consecutive years, the benefit increase will change to 1.5%; if the funded ratio reaches 90% (based on a 2.5% post-retirement benefit increase assumption) for two consecutive years, the benefit increase will revert to 2.5%. If, after reverting to a 1.5% benefit increase, the funded ratio declines to less than 75% for one year or less than 80% for two consecutive years, the benefit increase will be reduced to 1.0%.

Projections* indicate that this plan is expected to attain the funded ratio threshold required to pay a 1.5% post-retirement benefit increase in the year 2031 (beginning payment in January 2032) and a 2.5% increase in 2052 (beginning payment in 2053).

#### **Correctional Employees**

Benefit recipients receive a future annual 2.0% post-retirement benefit increase. If the funded ratio (determined on a market value of assets basis) reaches 90% (based on a 2.5% post-retirement benefit increase assumption) for two consecutive years, the benefit increase will revert to 2.5%. If, after reverting to a 2.5% benefit increase, the funded ratio declines to less than 80% for one year or less than 85% for two consecutive years, the benefit increase will be reduced to 2.0%.

Projections* indicate that this plan is expected to pay 2.0% post-retirement benefit increases indefinitely.

#### Judges

Benefit recipients receive a future annual 1.75% post-retirement benefit increase. If the funded ratio (determined on a market value of assets basis) reaches 70% (based on a 2.0% post-retirement benefit increase assumption) for two consecutive years, the benefit increase will increase to 2.0%; if the funded ratio reaches 90% (based on a 2.5% post-retirement benefit increase assumption) for two consecutive years, the benefit increase will revert to 2.5%.

Projections* indicate that this plan is expected to pay 1.75% post-retirement benefit increases indefinitely.

- * To determine assumptions regarding a future change in the post-retirement benefit increase, liabilities and assets were projected based on the following methods and assumptions:
  - Future investment returns of 7.9%
  - Liabilities and normal cost based on statutory funding assumptions (discount rate and salary increases) as reflected on pages 134-147.
  - Open group, stable active population (new members, if applicable, based on average new members hired in recent years)
  - Post-retirement benefit increases are assumed at the current rate until each successive funded ratio threshold required for a change is reached.
  - Contributions are at the current statutory rate, so do not include potential contribution increases under the contribution stabilizer statute.

#### Legislators

Benefit recipients receive a future annual 2.0% post-retirement benefit increase. If the funded ratio (determined on a market value of assets basis) of the State Employees Retirement Fund reaches 90% (based on a 2.5% post-retirement benefit increase assumption) for two consecutive years, the benefit increase for the Legislators Fund will revert to 2.5%. If, after reverting to a 2.5% benefit increase, the funded ratio of the State Employee Retirement Fund declines to less than 80% for one year or less than 85% for two consecutive years, the benefit increase will be reduced to 2.0%.

Projections* for the State Employees Retirement Fund indicate that the Legislators Fund is expected to begin paying a 2.5% post-retirement benefit increase in January 2044. (See calculation assumptions on previous page.)

#### **Actuarial Assumptions**

Most assumptions used for GASB-compliant financial reporting purposes are the same as those used for the purposes of measuring funding progress and determining the required contribution rate, as noted on pages 134-147 of this section. Only the assumptions that differ are listed below, and the funds to which they pertain are noted parenthetically.

1. Investment Return:	7.90%
2. Single Discount Rate as of the June 30, 2015 Measurement Date:	<ul><li>7.90% (State Employees, State Patrol)</li><li>6.25% (Correctional Employees)</li><li>5.25% (Judges)</li><li>3.80% (Legislators)</li></ul>
3. Administrative expenses:	Prior year administrative expenses expressed as a percentage of prior year projected payroll are assumed to increase 3.50% per year and are allocated to the closed group based on the ratio of closed group payroll to total payroll. (State Employees, State Patrol, Correctional Employees) Same as above, 2.75% (Judges)
4. Unclassified Plan Reversion:	Liabilities for active members increased by 0.21% to account for the effect of Unclassified Retirement Fund members who elect coverage under the State Employees Retirement Fund. (State Employees)
5. Benefit Increases After Retirement:	2.0% per year through 2043 and 2.5% per year thereafter (State Employees, Legislators)
	1.0% per year through 2031, 1.5% per year from 2032 to 2052, and 2.5% per year thereafter (State Patrol)

This page is intentionally left blank.

# Statistical Section

### MSRS 2015 Comprehensive Annual Financial Report

Evidence of the Effort

## Introduction

GASB *Statement No. 44, Economic Condition Reporting: The Statistical Section*, issued in May 2004, established the requirements for the information presented in this section of the comprehensive annual financial report. The information that follows is intended to provide financial statement users with additional historical perspectives, context and details. The information contained in this section supplements the financial information provided in the preceding sections, and displays trends where they exist, to help readers gain a better understanding of MSRS' overall financial condition.

The *Schedule of Changes in Fiduciary Net Position* shows a 10-year history of the asset growth of the various funds. This data allows readers of the report to review trends

in revenue sources and expense categories for all MSRS defined benefit and defined contribution funds.

The Schedule of Benefits and Refunds by Type displays in detail the growth of benefits disbursed, whereas the Schedule of Revenues by Source provides a 10-year history of the resources received along with the corresponding member payroll contributions and rate information. The Schedule of Expenses by Type summarizes the application of those resources over the past ten years.

The remaining schedules provide demographic information about the memberships and information about the employers that participate in the funds. The *Active Members Average Age Tables* report member entry age and attained age, as

### Schedule of Changes in Fiduciary Net Position

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

#### State Employees Retirement Fund

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$85,379	\$89,447	\$99,280	\$108,866	
Employer Contributions	82,645	86,492	96,746	107,211	
Investment Income (Net of Expenses)	915,632	1,503,390	(474,845)	(1,674,387)	
Other Additions	11,760	17,609	13,532	15,246	
Total Additions	\$1,095,416	\$1,696,938	\$(265,287)	\$(1,443,064)	
Deductions					
Annuity Benefits	\$366,797	\$392,058	\$418,757	\$445,792	
Refunds	12,555	11,102	11,676	10,907	
Administrative Expenses	4,588	4,916	5,152	5,320	
Other Expenses	1,495	2,898	2,993	939	
Total Deductions	\$385,435	\$410,974	\$438,578	\$462,958	
Change in Net Position	\$709,981	\$1,285,964	\$(703,865)	\$(1,906,022)	

well as service credit over a 10-year period. The Schedule of New Retirees and Average Benefit Payments reflects the number of new retirees and their average monthly benefits, also over a 10-year period. The Schedule of Retired Members by Type of Benefit reports the June 30, 2015, retirees, monthly benefit amount, and various benefit options selected.

The schedules in this section can be used together to gain a broader historical picture of the activities at MSRS. For instance, when service credit increases on the *Active Members Average Age Tables*, the average benefit shown on the *Schedule of New Retirees and Average Benefit Payments* will similarly increase for members with comparable years of service. Consequently, higher average benefits will be reflected in larger annuity benefit payment amounts reported in the Schedule of Changes in Fiduciary Net Position and Schedule of Expenses by Type found in this Statistical Section.

All the information contained in the schedules of this section was extracted from the database records of MSRS and summarized in the formats shown. There were no estimates or assumptions used in compiling this data.

2010	2011	2012	2013	2014	2015
\$115,181	\$122,029	\$118,358	\$124,150	\$131,033	\$149,293
113,716	118,563	115,159	121,673	128,037	146,333
1,040,873	1,764,307	213,887	1,275,308	1,829,621	501,185
14,939	24,975	24,677	21,565	21,014	30,401
\$1,284,709	\$2,029,874	\$472,081	\$1,542,696	\$2,109,705	\$827,212
<b>*</b> 172 1 17				<b>*</b> <22.042	<b>#</b> <<5.004
\$473,447	\$505,573	\$552,088	\$586,256	\$623,942	\$665,821
9,733	14,206	11,573	12,222	11,986	12,026
5,771	6,064	6,341	8,589	8,125	8,719
345	325	219	227	486	931
\$489,296	\$526,168	\$570,221	\$607,294	\$644,539	\$687,497
 \$795,413	\$1,503,706	\$(98,140)	\$935,402	\$1,465,166	\$139,715

### Schedule of Changes in Fiduciary Net Position

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

#### State Patrol Retirement Fund

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$4,719	\$4,987	\$5,595	\$6,216	
Employer Contributions	7,055	7,461	8,279	9,178	
Investment Income (Net of Expenses)	64,911	100,147	(30,579)	(110,073)	
Other Additions	0	3	0	13	
Total Additions	\$76,685	\$112,598	\$(16,705)	\$(94,666)	
Deductions					
Annuity Benefits	\$38,767	\$40,581	\$42,804	\$44,480	
Refunds	52	133	6	0	
Administrative Expenses	101	112	109	104	
Other Expenses	190	98	178	69	
Total Deductions	\$39,110	\$40,924	\$43,097	\$44,653	
Change in Net Position	\$37,575	\$71,674	\$(59,802)	\$(139,319)	

### **Correctional Employees Retirement Fund**

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$8,964	\$10,032	\$12,775	\$14,031	
Employer Contributions	12,152	13,927	18,623	20,126	
Investment Income (Net of Expenses)	59,786	84,830	(30,673)	(107,787)	
Other Additions	0	131	1,845	40	
Total Additions	\$80,902	\$108,920	\$2,570	\$(73,590)	
Deductions					
Annuity Benefits	\$26,162	\$28,565	\$30,932	\$33,239	
Refunds	730	752	795	1,016	
Administrative Expenses	336	405	410	402	
Other Expenses	340	358	310	150	
Total Deductions	\$27,568	\$30,080	\$32,447	\$34,807	
Change in Net Position	\$53,334	\$78,840	\$(29,877)	\$(108,397)	

2010	2011	2012	2013	2014	2015
\$6,726	\$6,578	\$7,753	\$7,703	\$7,930	\$9,174
10,104	9,873	11,620	11,482	11,894	13,763
68,184	110,908	12,744	76,315	107,187	28,903
41	0	0	0	1,000	1,000
\$85,055	\$127,359	\$32,117	\$95,500	\$128,011	\$52,840
\$46,119	\$47,844	\$50,007	\$52,057	\$53,697	\$55,465
3	0	275	7	25	15
123	92	158	190	150	170
0	14	0	1	0	0
\$46,245	\$47,950	\$50,440	\$52,255	\$53,872	\$55,650
 \$38,810	\$79,409	\$(18,323)	\$43,245	\$74,139	\$(2,810)

2010	2011	2012	2013	2014	2015
\$45 OCT	¢17.000	¢17.002	Ф4 <del>7</del> Г ( 4	¢40.055	<b>#21</b> 071
\$15,267	\$17,002	\$17,203	\$17,561	\$18,855	\$21,061
21,988	23,892	24,188	24,632	26,468	29,480
68,880	121,413	15,926	93,392	137,523	38,624
30	19	0	0	0	0
\$106,165	\$162,326	\$57,317	\$135,585	\$182,846	\$89,165
\$36,078	\$39,116	\$42,571	\$46,226	\$50,842	\$54,909
1,170	1,509	1,257	1,032	1,447	1,590
455	356	548	692	657	720
0	8	0	1	1	0
\$37,703	\$40,989	\$44,376	\$47,951	\$52,947	\$57,219
\$68,462	\$121,337	\$12,941	\$87,634	\$129,899	\$31,946

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

### Judges Retirement Fund

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$2,866	\$2,792	\$2,859	\$2,978	
Employer Contributions	7,336	7,571	7,935	8,219	
Investment Income (Net of Expenses)	15,456	25,523	(8,874)	(26,283)	
Other Additions	0	0	0	0	
Total Additions	\$25,658	\$35,886	\$1,920	\$(15,086)	
Deductions					
Annuity Benefits	\$14,260	\$14,516	\$15,116	\$16,261	
Refunds	111	0	45	0	
Administrative Expenses	60	49	54	36	
Other Expenses	78	63	24	16	
Total Deductions	\$14,398	\$14,673	\$15,194	\$16,313	
Change in Net Position	\$11,260	\$21,213	\$(13,274)	\$(31,399)	

#### Legislators Retirement Fund*

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$264	\$239	\$180	\$248	
Employer Contributions	0	0	0	0	
Investment Income (Net of Expenses)	3,539	6,808	(1,233)	(5,021)	
Other Additions	5,704	1,783	2,217	1,269	
Total Additions	\$9,507	\$8,830	\$1,164	\$(3,504)	
Deductions					
Annuity Benefits	\$6,094	\$6,390	\$6,786	\$7,016	
Refunds	78	35	1	0	
Administrative Expenses	33	29	34	26	
Other Expenses	34	26	3	0	
Total Deductions	\$6,239	\$6,480	\$6,824	\$7,042	
Change in Net Position	\$3,268	\$2,350	\$(5,660)	\$(10,546)	

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes. The Elective State Officers Retirement Fund schedule through fiscal year 2013 is on page 184.

2010	2011	2012	2013	2014	2015
\$2,988	\$3,010	\$2,931	\$3,037	\$3,578	\$3,629
8,283	8,297	7,922	8,177	9,426	9,776
17,339	28,644	3,341	19,943	28,011	7,572
1	0	0	0	0	0
\$28,611	\$39,951	\$14,194	\$31,157	\$41,015	\$20,977
<b>247</b> 050	<b>01</b> 7 505	\$40.5 <b>0</b> 0	\$40 <b>220</b>	<b>#20 002</b>	<b>#21</b> 002
\$17,058	\$17,585	\$18,539	\$19,772	\$20,802	\$21,893
0	0	30	0	0	0
42	32	72	72	55	60
0	1	1	1	0	0
\$17,100	\$17,648	\$18,612	\$19,845	\$20,857	\$21,953
\$11,511	\$22,303	\$(4,418)	\$11,312	\$20,158	\$(976)

2010	2011	2012	2013	2014	2015
\$171	\$160	\$124	\$111	\$101	\$153
0	0	0	0	0	0
3,199	4,142	253	1,763	1,750	281
1,975	2,807	3,935	3,399	3,436	3,216
\$5,345	\$7,109	\$4,312	\$5,273	\$5,287	\$3,650
\$7,159	\$7,464	\$7,721	\$7,826	\$8,407	\$8,441
0	11	172	101	79	0
28	22	36	38	36	37
0	0	0	1,338	0	0
\$7,187	\$7,497	\$7,929	\$9,303	\$8,522	\$8,478
 \$(1,842)	\$(388)	\$(3,617)	\$(4,030)	\$(3,235)	\$(4,828)

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

### **Elective State Officers Retirement Fund***

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	
Employer Contributions	0	0	0	0	
Investment Income (Net of Expenses)	0	0	0	0	
Other Additions	417	428	434	442	
Total Additions	\$417	\$428	\$434	\$442	
Deductions					
Annuity Benefits	\$409	\$419	\$430	\$440	
Refunds	0	0	0	0	
Administrative Expenses	5	4	4	1	
Other Expenses	0	0	0	0	
Total Deductions	\$414	\$423	\$434	\$441	
Change in Net Position	\$3	\$5	\$0	\$1	

#### **Unclassified Employees Retirement Fund**

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$4,368	\$5,476	\$5,209	\$4,660	
Employer Contributions	5,932	6,258	6,362	6,514	
Investment Income (Net of Expenses)	20,844	68,142	(3,949)	(46,746)	
Other Additions	828	2,028	878	426	
Total Additions	\$31,972	\$81,904	\$8,500	\$(35,146)	
Deductions					
Refunds	\$6,173	\$29,994	\$23,256	\$5,009	
Administrative Expenses	256	166	157	229	
Other Expenses	11,531	17,255	13,282	14,850	
Total Deductions	\$17,960	\$47,415	\$36,695	\$20,088	
Change in Net Position	\$14,012	\$34,489	\$(28,195)	\$(55,234)	

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes. The Legislators Retirement Fund schedule is on page 182.

2010	2011	2012	2013
\$0	<b>\$</b> 0	\$0	<b>\$</b> 0
0	0	0	0
0	0	0	0
453	460	465	470
\$453	\$460	\$465	\$470
\$451	\$459	\$458	\$469
0	0	0	0
1	1	7	1
0	0	0	0
\$452	\$460	\$465	\$470
\$1	\$0	\$0	\$0

2010	2011	2012	2013	2014	2015
\$4,472	\$5,417	\$5,586	\$5,096	\$5,430	\$6,173
6,333	6,360	5,918	5,867	6,099	6,256
28,860	51,977	6,622	36,246	49,457	14,839
259	311	293	139	147	1,102
\$39,924	\$64,065	\$18,419	\$47,348	\$61,133	\$28,370
\$5,691	\$7,799	\$5,250	\$6,197	\$7,496	\$8,461
164	174	144	144	140	125
14,652	24,777	24,339	21,155	21,001	30,451
\$20,507	\$32,750	\$29,733	\$27,496	\$28,637	\$39,037
\$19,417	\$31,315	\$(11,314)	\$19,852	\$32,496	\$(10,667)

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

### Health Care Savings Fund

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$52,562	\$59,515	\$73,082	\$82,920	
Investment Income (Net of Expenses)	5,092	12,698	(2,336)	(13,942)	
Other Additions	502	1,031	1,318	1,438	
Total Additions	\$58,156	\$73,244	\$72,064	\$70,416	
Deductions					
Health Care Reimbursements	\$18,300	\$23,470	\$27,548	\$31,088	
Administrative Expenses	724	844	1,090	1,523	
Other Expenses	0	0	0	0	
Total Deductions	\$19,024	\$24,314	\$28,638	\$32,611	
Change in Net Position	\$39,132	\$48,930	\$43,426	\$37,805	

### Minnesota Deferred Compensation Fund

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$211,705	\$217,446	\$231,671	\$217,415	
Investment Income (Net of Expenses)	269,458	456,868	(93,065)	(547,303)	
Other Income	4,815	6,036	4,608	3,788	
Total Additions	\$485,978	\$680,350	\$143,214	\$(326,100)	
Deductions					
Ongoing Withdrawals	\$34,264	\$35,285	\$37,039	\$35,222	
Refunds	121,636	135,419	144,837	106,009	
Administrative Expenses	2,283	2,514	2,728	3,004	
Other Expenses	5,451	6,726	4,577	3,409	
Total Deductions	\$163,634	\$179,944	\$189,181	\$147,644	
Change in Net Position	\$322,344	\$500,406	\$(45,967)	\$(473,744)	

	2010	2011	2012	2013	2014	2015
\$	90,445	\$132,526	\$128,375	\$112,359	\$116,971	\$130,894
	13,032	26,499	4,445	28,116	50,333	18,678
	63	1,989	2,422	2,789	3,610	3,673
\$1	03,540	\$161,014	\$135,242	\$143,264	\$170,914	\$153,245
\$	35,613	\$44,740	\$58,987	\$62,482	\$64,762	\$67,688
	1,388	794	1,296	1,506	1,838	2,048
	743	1,396	855	941	4,600	5,250
\$	37,744	\$46,930	\$61,138	\$64,929	\$71,200	\$74,986
\$	65,796	\$114,084	\$74,104	\$78,335	\$99,714	\$78,259

2010	2011	2012	2013	2014	2015
\$228,190	\$222,031	\$216,010	\$229,187	\$234,805	\$246,013
308,697	652,762	\$5,400	642,247	748,675	238,537
2,305	5,819	4,480	4,237	5,320	4,857
 \$539,192	\$880,612	\$305,890	\$875,671	\$988,800	\$489,407
\$30,353	\$28,549	\$29,615	\$28,961	\$29,754	\$33,205
450,555 114,889	\$28,549 162,756	170,442	192,774	218,492	\$55,205 262,855
2,726	3,370	2,762	2,959	3,372	3,463
1,715	1,630	1,745	1,721	3,851	3,998
\$149,683	\$196,305	\$204,564	\$226,415	\$255,469	\$303,521
 \$389,509	\$684,307	\$101,326	\$649,256	\$733,331	\$185,886

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

### Hennepin County Supplemental Retirement Fund

	2006	2007	2008	2009	
Additions					
Plan Member Contributions	\$426	\$639	\$601	\$570	
Employer Contributions	426	640	601	570	
Investment Income (Net of Expenses)	6,668	20,688	(9,625)	(20,951)	
Other Income	24	53	50	34	
Total Additions	\$7,544	\$22,020	\$(8,373)	\$(19,777)	
Deductions					
Ongoing Withdrawals	\$3,703	\$5,830	\$5,885	\$4,260	
Refunds	378	1,677	227	322	
Administrative Expenses	5	5	6	5	
Other Expenses	0	59	41	32	
Total Deductions	\$4,086	\$7,571	\$6,159	\$4,619	
Change in Net Position	\$3,458	\$14,449	\$(14,532)	\$(24,396)	

2010	2011	2012	2013	2014	2015
øр – 1 4	\$ 4 C 7	\$ 4 F Q	¢227	<b>*27</b> 0	¢oor
\$514	\$467	\$458	\$227	\$270	\$235
515	466	459	228	270	231
12,288	21,710	3,919	15,968	22,473	7,450
48	49	49	52	57	83
\$13,365	\$22,692	\$4,885	\$16,475	\$23,070	\$7,999
\$3,514	\$4,069	\$2,807	\$4,225	\$5,182	\$6,130
2,244	2,490	3,933	2,491	1,933	1,911
17	11	17	16	27	25
35	39	33	37	87	134
\$5,810	\$6,609	\$6,790	\$6,769	\$7,229	\$8,200
\$7,555	\$16,083	\$(1,905)	\$9,706	\$15,841	\$(201)

## Schedule of Revenues by Source

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

Fiscal Year Ended June 30	Employee Contributions	Employer Contributions	Investment Income	Other Income	Total	Actual Covered Payroll	Percentage Employer Contributions*		
State Employees Retirement Fund									
2006	\$85,379			\$11.760	\$1.005.416	\$2 016 E99	4.00%		
2008	\$85,579 89,447	\$82,645 86,492	\$915,632 1,503,390	\$11,760 17,609	\$1,095,416 1,696,938	\$2,016,588			
	89,447 99,280	96,746		13,532		2,095,310 2,256,528	4.00		
2008 2009	108,866	107,211	(474,845) (1,674,387)	15,332	(265,287) (1,443,064)	2,230,328	4.25 4.50		
		113,716	( )	13,240	1,284,709	2,329,499			
2010	115,181 122,029	118,563	1,040,873	24,939 24,975			4.75 5.00		
2011 2012			1,764,307		2,029,874	2,440,580	5.00		
2012	118,358	115,159	213,887	24,677	472,081	2,367,160	5.00		
2013 2014	124,150	121,673	1,275,308	21,565	1,542,696	2,483,000	5.00		
	131,033	128,037	1,829,621	21,014	2,109,705	2,620,660			
2015	149,293	146,333	501,185	30,401	827,212	2,714,418	5.50		
State Pa	atrol Retire	ement Fund							
2006	\$4,719	\$7,055	\$64,911	<b>\$</b> 0	\$76,685	\$57,765	12.60%		
2007	4,987	7,461	100,147	3	112,598	61,498	12.60		
2008	5,595	8,279	(30,579)	0	(16,705)	60,029	13.60		
2009	6,216	9,178	(110,073)	13	(94,666)	61,511	14.60		
2010	6,726	10,104	68,184	41	85,055	63,250	14.60		
2011	6,578	9,873	110,908	0	127,359	63,250	18.60		
2012	7,753	11,620	12,744	0	32,117	62,524	18.60		
2013	7,703	11,482	76,315	0	95,500	62,121	18.60**		
2014	7,930	11,894	107,187	1,000	128,011	63,952	18.60**		
2015	9,174	13,763	28,903	1,000	52,840	68,463	20.10**		
Correct	tional Emp	loyees Retire	ment Fun	d					
2006	\$8,964	\$12,152	\$59,786	\$0	\$80,902	\$145,879	7.98%		
2007	10,032	13,927	84,830	131	108,920	167,727	7.98		
2008	12,775	18,623	(30,673)	1,845	2,570	194,391	9.10		
2009	14,031	20,126	(107,787)	40	(73,590)	193,445	10.10		
2010	15,267	21,988	68,880	30	106,165	192,450	11.10		
2011	17,002	23,892	121,413	19	162,326	197,702	12.10		
2012	17,203	24,188	15,926	0	57,317	200,035	12.10		
2013	17,561	24,632	93,392	0	135,585	204,198	12.10		
2014	18,855	26,468	137,523	0	182,846	219,244	12.10		
2015	21 061	20 480	20 (24	0	90 1 C E	221 440	12.05		

* Because of employer-paid interest, penalties and leaves of absence, actual employer contributions may exceed the statutorily required percentage.

38,624

** Percentage excludes statutorily required annual supplemental state contribution of \$1 million.

29,480

0

89,165

231,440

12.85

2015

21,061

Fiscal Year Ended June 30	Employee Contributions	Employer Contributions	Investment Income	Other Income	Total	Actual Covered Payroll	Percentage Employer Contributions*
Judges	Retirement	Fund					
2006	\$2,866	\$7,336	\$15,456	\$0	\$25,658	\$36,529	20.50%
2007	2,792	7,571	25,523	0	35,886	36,195	20.50
2008	2,859	7,935	(8,874)	0	1,920	38,296	20.50
2009	2,978	8,219	(26,283)	0	(15,086)	39,444	20.50
2010	2,988	8,283	17,339	1	28,611	36,723	20.50
2011	3,010	8,297	28,644	0	39,951	40,473	20.50
2012	2,931	7,922	3,341	0	14,194	38,644	20.50
2013	3,037	8,177	19,943	0	31,157	39,888	20.50
2014	3,578	9,426	28,011	0	41,015	41,893	22.50
2015	3,629	9,776	7,572	0	20,977	43,449	22.50
Legisla	tors Retiren	nent Fund**					
2006	\$264	N/A	\$3,539	\$5,704	\$9,507	\$2,894	N/A
2007	239	N/A	6,808	1,783	8,830	2,380	N/A
2008	180	N/A	(1,233)	2,217	1,164	1,993	N/A
2009	248	N/A	(5,021)	1,269	(3,504)	1,963	N/A
2010	171	N/A	3,199	1,975	5,345	1,877	N/A
2011	160	N/A	4,142	2,807	7,109	1,774	N/A
2012	124	N/A	253	3,935	4,312	1,378	N/A
2013	111	N/A	1,763	3,399	5,273	1,233	N/A
2014	101	N/A	1,750	3,436	5,287	1,122	N/A
2015***	153	N/A	281	3,216	3,650	1,700	N/A
Flective	State Off	cers Retiremo	ont Fund**	¢			
LICUIV							
2006	\$0	<b>\$</b> 0	<b>\$</b> 0	\$417	\$417	N/A	N/A
2007	0	0	0	120	120	NI / A	NT / A

2006	\$0	\$0	\$0	\$417	\$417	N/A	N/A
2007	0	0	0	428	428	N/A	N/A
2008	0	0	0	434	434	N/A	N/A
2009	0	0	0	442	442	N/A	N/A
2010	0	0	0	453	453	N/A	N/A
2011	0	0	0	460	460	N/A	N/A
2012	0	0	0	465	465	N/A	N/A
2013	0	0	0	470	470	N/A	N/A

* Because of employer-paid interest, penalties and leaves of absence, actual employer contributions may exceed the statutorily required percentage.

** Other income for the Legislators Retirement Fund and the Elective State Officers Retirement Fund include appropriations from the State's General Fund. Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes.

*** Employee contributions included a member repayment of a prior year employee contribution refund. Actual covered payroll is calculated based on employee contributions.

MSRS 2015 Comprehensive Annual Financial Report - Statistical Section

## Schedule of Expenses by Type

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

Fiscal Year Ended June 30	Annuity Benefits	Administrative Expenses	Refunds	Other Expenses	Total
State Emj	ployees Retiren	nent Fund			
2006	\$366,797	\$4,588	\$12,555	\$1,495	\$385,435
2007	392,058	4,916	11,102	2,898	410,974
2008	418,757	5,152	11,676	2,993	438,578
2009	445,792	5,320	10,907	939	462,958
2010	473,447	5,771	9,733	345	489,296
2011	505,573	6,064	14,206	325	526,168
2012	552,088	6,341	11,573	219	570,221
2013	586,256	8,589	12,222	227	607,294
2014	623,942	8,125	11,986	486	644,539
2015	665,821	8,719	12,026	931	687,497

### State Patrol Retirement Fund

2006	\$38,767	\$101	\$52	\$190	\$39,110
2007	40,581	112	133	98	40,924
2008	42,804	109	6	178	43,097
2009	44,480	104	0	69	44,653
2010	46,119	123	3	0	46,245
2011	47,844	92	0	14	47,950
2012	50,007	158	275	0	50,440
2013	52,057	190	7	1	52,255
2014	53,697	150	25	0	53,872
2015	55,465	170	15	0	55,650

### **Correctional Employees Retirement Fund**

2006	\$26,162	\$336	\$730	\$340	\$27,568
2007	28,565	405	752	358	30,080
2008	30,932	410	795	310	32,447
2009	33,239	402	1,016	150	34,807
2010	36,078	455	1,170	0	37,703
2011	39,116	356	1,509	8	40,989
2012	42,571	548	1,257	0	44,376
2013	46,226	692	1,032	1	47,951
2014	50,842	657	1,447	1	52,947
2015	54,909	720	1,590	0	57,219

Fiscal Year Ended June 30	Annuity Benefits	Administrative Expenses	Refunds	Other Expenses	Total
Judges R	etirement Fun	d			
2006	\$14,260	\$60	\$0	\$78	\$14,398
2007	14,516	49	45	63	14,673
2008	15,116	54	0	24	15,194
2009	16,261	36	0	16	16,313
2010	17,058	42	0	0	17,100
2011	17,585	32	30	1	17,648
2012	18,539	72	0	1	18,612
2013	19,772	72	0	1	19,845
2014	20,802	55	0	0	20,857
2015	21,893	60	0	0	21,953
Legislato	ors Retirement	Fund*			

2006	\$6,094	\$33	\$78	\$34	\$6,239
2007	6,390	29	35	26	6,480
2008	6,786	34	1	3	6,824
2009	7,016	26	0	0	7,042
2010	7,159	28	0	0	7,187
2011	7,464	22	11	0	7,497
2012	7,721	36	172	0	7,929
2013	7,826	38	101	1,338	9,303
2014	8,407	36	79	0	8,522
2015	8,441	37	0	0	8,478

### Elective State Officers Retirement Fund*

2006	\$409	\$5	\$0	<b>\$</b> 0	\$414
2007	419	4	0	0	423
2008	430	4	0	0	434
2009	440	1	0	0	441
2010	451	1	0	0	452
2011	459	1	0	0	460
2012	458	7	0	0	465
2013	469	1	0	0	470

* Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes.

Comparable benefits are not provided by the defined contribution funds and therefore are not presented here.

MSRS 2015 Comprehensive Annual Financial Report - Statistical Section

## Schedule of Benefits and Refunds by Type

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

#### State Employees Retirement Fund

	2006	2007	2008	2009	
Benefits by Type					
Retirement	\$310,380	\$331,464	\$354,317	\$377,343	
Survivor	38,758	41,816	44,403	47,345	
Disability	17,659	18,778	20,037	21,104	
Total	\$366,797	\$392,058	\$418,757	\$445,792	
Refunds by Type					
Separation	\$7,270	\$6,462	\$6,657	\$5,484	
Death	864	937	1,162	1,478	
Interest	4,421	3,703	3,857	3,945	
Total	\$12,555	\$11,102	\$11,676	\$10,907	

### State Patrol Retirement Fund

	2006	2007	2008	2009	
Benefits by Type					
Retirement	\$32,539	\$33,911	\$35,561	\$37,167	
Survivor	4,667	5,079	5,510	5,560	
Disability	1,561	1,591	1,733	1,753	
Total	\$38,767	\$40,581	\$42,804	\$44,480	
Refunds by Type					
Separation	\$37	\$77	\$6	<b>\$</b> 0	
Death	0	0	0	0	
Interest	15	56	0	0	
Total	\$52	\$133	\$6	\$0	

#### **Correctional Employees Retirement Fund**

	2006	2007	2008	2009	
Benefits by Type					
Retirement	\$21,981	\$24,069	\$26,133	\$28,167	
Survivor	1,150	1,307	1,404	1,515	
Disability	3,031	3,189	3,395	3,557	
Total	26,162	\$28,565	\$30,932	\$33,239	
Refunds by Type					
Separation	\$569	\$568	\$631	\$724	
Death	0	36	13	64	
Interest	161	148	151	228	
Total	\$730	\$752	\$795	\$1,016	

2010	2011	2012	2013	2014	2015
\$400,703	\$428,731	\$471,881	\$502,520	\$536,403	\$574,893
50,822	54,029	56,585	\$9,150 59,150	62,122	65,000
21,922	22,813	23,622	24,586	25,417	25,928
\$473,447	\$505,573	\$552,088	\$586,256	\$623,942	\$665,821
		,,	,,	, , , , , , , , , , , , , , , , , , ,	
\$5,556	\$7,329	\$6,683	\$7,309	\$7,227	\$7,207
756	948	781	618	829	1,653
3,421	5,929	4,109	4,295	3,930	3,166
\$9,733	\$14,206	\$11,573	\$12,222	\$11,986	\$12,026
2010	2011	2012	2013	2014	2015
2010	2011	2012	2013	2014	2015
<b>2010</b> \$38,560	<b>2011</b> \$40,246	<b>2012</b> \$42,435	<b>2013</b> \$44,296	<b>2014</b> \$45,737	<b>2015</b> \$47,363
\$38,560	\$40,246	\$42,435	\$44,296	\$45,737	\$47,363
\$38,560 5,600	\$40,246 5,562	\$42,435 5,528	\$44,296 5,598	\$45,737 5,612	\$47,363 5,590 2,512
\$38,560 5,600 1,959	\$40,246 5,562 2,036	\$42,435 5,528 2,044	\$44,296 5,598 2,163	\$45,737 5,612 2,348	\$47,363 5,590 2,512
\$38,560 5,600 1,959	\$40,246 5,562 2,036	\$42,435 5,528 2,044	\$44,296 5,598 2,163	\$45,737 5,612 2,348	\$47,363 5,590 2,512 <b>\$55,465</b>
\$38,560 5,600 1,959 \$46,119	\$40,246 5,562 2,036 <b>\$47,844</b>	\$42,435 5,528 2,044 <b>\$50,007</b>	\$44,296 5,598 2,163 <b>\$52,057</b>	\$45,737 5,612 2,348 <b>\$53,697</b>	\$47,363 5,590
\$38,560 5,600 1,959 <b>\$46,119</b> \$3	\$40,246 5,562 2,036 <b>\$47,844</b> \$0	\$42,435 5,528 2,044 \$ <b>50,007</b> \$1	\$44,296 5,598 2,163 <b>\$52,057</b> \$5	\$45,737 5,612 2,348 <b>\$53,697</b> \$24	\$47,363 5,590 2,512 <b>\$55,465</b> \$14

2010	2011	2012	2013	2014	2015
\$30,637	\$33,062	\$35,906	\$39,120	\$43,087	\$46,700
1,618	1,793	2,037	2,197	2,519	2,806
3,823	4,261	4,628	4,909	5,236	5,403
\$36,078	\$39,116	\$42,571	\$46,226	\$50,842	\$54,909
\$758	\$1,100	\$1,007	\$818	\$1,058	\$1,311
62	19	24	27	107	21
350	390	226	187	282	258
\$1,170	\$1,509	\$1,257	\$1,032	\$1,447	\$1,590

MSRS 2015 Comprehensive Annual Financial Report - Statistical Section

## Schedule of Benefits and Refunds by Type

For the Ten Fiscal Years Ended June 30, 2015 (Dollars in thousands)

### Judges Retirement Fund

	2006	2007	2008	2009	
Benefits by Type					
Retirement	\$10,359	\$10,467	\$10,959	\$10,528	
Survivor	3,314	3,427	3,520	3,906	
Disability	587	622	637	1,827	
Total	\$14,260	\$14,516	\$15,116	\$16,261	
Refunds by Type					
Separation	\$0	\$38	\$0	\$0	
Death	0	0	0	0	
Interest	0	7	0	0	
Total	\$0	\$45	\$0	\$0	

## Legislators Retirement Fund*

	2006	2007	2008	2009	
Benefits by Type**					
Retirement	\$5,275	\$5,496	\$5,837	\$5,983	
Survivor	819	894	949	1,033	
Total	\$6,094	\$6,390	\$6,786	\$7,016	
Refunds by Type					
Separation	<b>\$</b> 0	\$19	\$1	<b>\$</b> 0	
Death	27	0	0	0	
Interest	51	16	0	0	
Total	\$78	\$35	\$1	\$0	

### **Elective State Officers Retirement Fund***

	2006	2007	2008	2009	
Benefits by Type**					
Retirement	\$324	\$332	\$340	\$348	
Survivor	85	87	90	92	
Total	\$409	\$419	\$430	\$440	

#### Refunds by Type

There were no refunds for the past ten years.

- * Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost-savings purposes.
- ** The Legislators and Elective State Officers Retirement Funds do not provide disability benefits.

Comparable benefits are not provided by the defined contribution retirement funds and therefore, are not presented here.

2010	2011	2012	2013	2014	2015
\$10,996	\$11,525	\$12,279	\$13,415	\$14,700	\$15,874
4,202	4,195	4,521	4,624	4,363	4,307
1,860	1,865	1,739	1,733	1,739	1,712
\$17,058	\$17,585	\$18,539	\$19,772	\$20,802	\$21,893
\$0	\$27	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0
0	0	0	0	0	0
0	3	0	0	0	0
	¢20	\$0	\$0	\$0	\$0
\$0	\$30	ψυ			
\$0	064	ψυ			
\$0	\$30	2012	2013	2014	2015
2010	2011	2012	2013	2014	2015
<b>2010</b> \$6,007	<b>2011</b> \$6,231	<b>2012</b> \$6,420	<b>2013</b> \$6,565	<b>2014</b> \$7,032	<b>2015</b> \$6,987 1,454
<b>2010</b> \$6,007 1,152	<b>2011</b> \$6,231 1,233	<b>2012</b> \$6,420 1,301	<b>2013</b> \$6,565 1,261	<b>2014</b> \$7,032 1,375	<b>2015</b> \$6,987 1,454
<b>2010</b> \$6,007 1,152	<b>2011</b> \$6,231 1,233 <b>\$7,464</b>	<b>2012</b> \$6,420 1,301 <b>\$7,721</b>	<b>2013</b> \$6,565 1,261 <b>\$7,826</b>	<b>2014</b> \$7,032 1,375 <b>\$8,407</b>	<b>2015</b> \$6,987 1,454 <b>\$8,441</b>
<b>2010</b> \$6,007 1,152 <b>\$7,159</b>	<b>2011</b> \$6,231 1,233	<b>2012</b> \$6,420 1,301	<b>2013</b> \$6,565 1,261	<b>2014</b> \$7,032 1,375	<b>2015</b> \$6,987 1,454
<b>2010</b> \$6,007 1,152 <b>\$7,159</b> \$0	<b>2011</b> \$6,231 1,233 <b>\$7,464</b> \$5	<b>2012</b> \$6,420 1,301 <b>\$7,721</b> \$73	<b>2013</b> \$6,565 1,261 <b>\$7,826</b> \$34	<b>2014</b> \$7,032 1,375 <b>\$8,407</b> \$0	<b>2015</b> \$6,987 1,454 <b>\$8,441</b> \$0

2010	2011	2012	2013
\$347	\$353	\$337	\$345
94	106	121	124
\$451	\$459	\$458	\$469

_

_

## Active Members Average Age Tables

For the Ten Fiscal Years Ended June 30, 2015 (In Years)

	Average	es for New M	lembers				Avera	ges for All	Members	3			
<b>F</b> • 1 <b>V</b>		Entry Age			Entry Ag	e	А	Attained Age		S	Service Credit		
Fiscal Year Ended	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
State Er	nploy	ees Reti	rement	t Fund	l								
06/30/06	35.8	35.2	35.1	32.6	32.2	32.4	47.0	45.3	46.1	13.6	11.6	12.5	
06/30/07	36.4	34.9	35.5	32.9	32.4	32.6	47.2	45.4	46.2	13.4	11.6	12.4	
06/30/08	36.6	35.5	35.9	33.2	32.6	32.9	47.3	45.5	46.3	13.2	11.5	12.3	
06/30/09	36.8	35.8	36.3	33.5	32.8	33.1	47.5	46.0	46.7	13.2	11.8	12.5	
06/30/10	37.1	35.9	36.4	33.6	32.7	33.1	47.7	46.3	47.0	13.3	12.1	12.7	
06/30/11	36.4	36.9	36.7	33.8	32.9	33.3	47.7	46.6	47.1	13.1	12.2	12.6	
06/30/12	36.6	34.7	35.5	34.0	33.2	33.6	47.6	46.6	47.1	12.8	12.0	12.4	
06/30/13	37.1	36.5	36.8	34.3	33.4	33.8	47.6	46.6	47.0	12.5	11.9	12.2	
06/30/14	36.2	35.8	35.9	34.5	33.7	34.1	47.6	46.6	47.0	12.3	11.7	12.0	
06/30/15	36.3	34.9	35.5	34.7	33.8	34.2	47.6	46.6	47.0	12.2	11.7	11.9	

### **State Patrol Retirement Fund**

06/30/06	33.4	32.0	33.2	28.6	29.0	28.7	41.1	39.4	41.0	12.5	10.1	12.2
06/30/07	36.2	36.8	36.3	28.8	29.0	28.8	41.5	39.9	41.3	12.6	10.8	12.4
06/30/08	32.8	29.5	32.3	29.0	28.9	29.0	41.6	40.3	41.5	12.5	11.2	12.4
06/30/09	29.9	29.8	29.9	29.0	29.1	29.0	41.2	40.1	41.1	12.1	10.9	11.9
06/30/10	39.4	N/A	39.4	29.0	28.7	29.0	41.9	40.9	41.8	12.8	12.0	12.7
06/30/11	29.6	33.4	30.0	29.1	29.0	29.1	41.8	41.0	41.7	12.6	11.8	12.6
06/30/12	36.5	27.9	33.4	29.2	28.8	29.2	42.1	41.3	42.0	12.8	12.2	12.7
06/30/13	30.7	31.7	30.7	29.3	28.9	29.3	41.9	41.8	41.8	12.5	12.7	12.5
06/30/14	32.8	28.4	32.4	29.4	29.0	29.4	41.8	41.6	41.8	12.4	12.7	12.4
06/30/15	29.7	33.6	29.9	29.4	29.1	29.4	41.2	41.5	41.3	11.9	12.4	11.9

Averages for New Members						Aver	ages for A	ll Memb	ers	rs				
Entry Age		Ε	ntry Age		At	tained Ag	e	Sei	Service Credit					
Fiscal Year Ended	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		

## **Correctional Employees Retirement Fund**

06/30/06	32.8	33.9	33.3	31.6	33.9	32.4	40.2	39.9	40.1	8.2	5.7	7.4
06/30/07	34.2	35.4	34.8	32.0	34.2	32.8	40.3	39.7	40.1	7.9	5.2	6.9
06/30/08	33.5	34.7	34.1	32.0	34.3	32.9	40.5	40.0	40.3	8.2	5.5	7.1
06/30/09	33.3	35.2	34.2	32.1	34.6	33.0	41.0	40.9	40.9	8.7	6.1	7.7
06/30/10	36.1	38.0	37.1	32.0	34.5	32.9	41.6	41.6	41.6	9.3	6.7	8.4
06/30/11	32.1	33.3	32.7	31.9	34.0	32.7	41.6	41.3	41.5	9.4	7.0	8.5
06/30/12	32.3	33.6	32.8	31.8	33.8	32.6	41.5	41.2	41.4	9.4	7.1	8.6
06/30/13	32.0	34.0	32.9	31.8	33.7	32.4	41.6	41.2	41.5	9.5	7.2	8.7
06/30/14	33.7	33.6	33.7	31.9	33.4	32.5	41.8	40.8	41.4	9.7	7.1	8.7
06/30/15	33.0	35.4	34.1	31.9	33.6	32.5	41.7	41.0	41.4	9.6	7.1	8.7

### Judges Retirement Fund

06/30/06	49.5	41.6	47.0	45.6	43.1	44.9	57.0	52.2	55.7	11.1	9.1	10.5
06/30/07	50.2	46.1	49.3	46.1	43.3	45.3	57.0	52.8	55.8	10.6	9.5	10.3
06/30/08	53.2	46.5	50.7	46.6	44.1	45.9	57.1	52.9	55.9	10.4	8.7	9.9
06/30/09	52.0	47.7	49.8	46.9	44.4	46.1	57.6	53.2	56.2	10.5	8.7	10.0
06/30/10	49.4	43.8	47.1	47.0	44.5	46.2	58.6	53.4	56.5	10.8	8.8	10.1
06/30/11	49.8	45.3	48.3	47.3	44.7	46.4	58.2	53.8	56.7	10.8	9.0	10.2
06/30/12	52.1	49.4	51.0	47.7	45.0	46.7	58.3	54.4	56.9	10.6	9.2	10.1
06/30/13	51.6	46.6	48.7	48.1	45.1	47.0	58.3	54.2	56.7	10.1	8.7	9.6
06/30/14	48.7	45.9	47.5	48.0	45.1	46.9	58.3	54.0	56.7	10.2	8.6	9.6
06/30/15	51.6	48.1	49.6	48.2	45.0	46.9	58.6	53.9	56.8	10.3	8.5	9.6

These statistics are not available for the Legislators Retirement Fund.

## Schedule of Retired Members by Type of Benefit

As of June 30, 2015

		]	Retirement T	ype		Option S	Selected	
Monthly Benefit Amount	Number of Retirees	1	2	3	Life	I	II	III
\$0-\$499	8,111	6,980	370	761	4,779	2,867	266	199
\$500-\$999	6,588	5,250	487	851	3,444	2,781	241	122
\$1,000-\$1,499	5,713	4,570	415	728	2,853	2,648	144	68
\$1,500-\$1,999	4,782	3,988	296	498	2,141	2,497	90	54
\$2,000-\$2,499	3,924	3,431	154	339	1,638	2,198	53	35
\$2,500-\$2,999	2,745	2,444	63	238	1,125	1,565	36	19
\$3,000-\$3,499	1,859	1,704	22	133	729	1,103	16	11
\$3,500-\$3,999	1,134	1,043	3	88	407	712	7	8
\$4,000-\$4,499	690	625	6	59	236	446	3	5
\$4,500-\$4,999	410	371	1	38	154	246	5	5
\$5,000+	520	465	2	53	182	327	4	7
Totals	36,476	30,871	1,819	3,786	17,688	17,390	865	533
		Туре:			Option	:		
			tired membe	rs	Life	Single life ar	nnuity	

### **State Employees Retirement Fund**

Retired members

2 Disabilitants

3 Survivors

Life Single life annuity

Ι Joint and Survivor annuity

II Death while eligible

III Period certain

### **State Patrol Retirement Fund**

		Retirement Type Option Selected						
Monthly Benefit Amount	Number of Retirees	1	2	3	Life	Ι	Π	III
\$0-\$499	21	16	0	5	11	7	3	0
\$500-\$999	25	12	2	11	5	12	8	0
\$1,000-\$1,499	32	17	0	15	13	14	5	0
\$1,500-\$1,999	24	13	3	8	8	16	0	0
\$2,000-\$2,499	60	23	3	34	11	41	8	0
\$2,500-\$2,999	55	21	6	28	20	32	3	0
\$3,000-\$3,499	70	48	8	14	19	48	3	0
\$3,500-\$3,999	80	60	12	8	32	48	0	0
\$4,000-\$4,499	90	70	11	9	29	58	3	0
\$4,500-\$4,999	120	109	4	7	36	84	0	0
\$5,000+	450	427	8	15	183	263	4	0
Totals	1,027	816	57	154	367	623	37	0

#### Type: 1 Retired members 2 Disabilitants

3 Survivors

#### **Option:**

-			
Life	Single l	ife	annuity

Ι Joint and Survivor annuity

Death while eligible Π

III Period certain

## **Correctional Employees Retirement Fund**

	/ ^	1	Retirement Ty	pe		Option S	Selected	
Monthly Benefit Amount	Number of Retirees	1	2	3	Life	Ι	II	III
\$0-\$499	422	367	11	44	226	165	25	6
\$500-\$999	466	404	16	46	239	208	16	3
\$1,000-\$1,499	465	319	106	40	229	220	12	4
\$1,500-\$1,999	431	321	79	31	198	221	7	5
\$2,000-\$2,499	345	286	44	15	153	187	4	1
\$2,500-\$2,999	236	215	12	9	97	135	3	1
\$3,000-\$3,499	173	160	8	5	63	110	0	0
\$3,500-\$3,999	111	104	2	5	46	65	0	0
\$4,000-\$4,499	54	52	1	1	20	34	0	0
\$4,500-\$4,999	40	38	0	2	8	31	0	1
\$5,000+	26	26	0	0	10	16	0	0
Totals	2,769	2,292	279	198	1,289	1,392	<u>67</u>	<u></u>
		Туре:			Opti	ion:		

Retired members 1

2 Disabilitants

3 Survivors

Life Single life annuity

Joint and Survivor annuity Ι

Π Death while eligible

III Period certain

### Judges Retirement Fund

	/ .	H	Retirement Ty	pe		Option Selected					
Monthly Benefit Amount	Number of Retirees	1	2	3	Life	Ι	II	III 0 0 1 1 0 0 0 0 0 0 0 0 0 6 8			
\$0-\$499	0	0	0	0	0	0	0	0			
\$500-\$999	4	2	0	2	0	3	1	0			
\$1,000-\$1,499	4	3	0	1	1	2	0	1			
\$1,500-\$1,999	12	10	0	2	4	5	2	1			
\$2,000-\$2,499	15	7	1	7	6	8	1	0			
\$2,500-\$2,999	21	13	0	8	4	15	2	0			
\$3,000-\$3,499	22	9	1	12	2	17	3	0			
\$3,500-\$3,999	19	9	0	10	3	14	2	0			
\$4,000-\$4,499	21	9	2	10	3	14	4	0			
\$4,500-\$4,999	35	22	3	10	6	27	2	0			
\$5,000+	193	156	16	21	52	128	7	6			
Totals	346	240	23	83	81	233	24	8			

Ту	vpe:
1	Retired members
2	Disabilitants

3 Survivors

#### **Option:**

- Life Single life annuity
- Ι Joint and Survivor annuity
- Π Death while eligible
- III Period certain

## Schedule of Retired Members by Type of Benefit

As of June 30, 2015

### Legislators Retirement Fund

Monthly	Number of	Retirem	ent Type		Option Selected	<b>П</b> 4 23 10				
Benefit Amount	Retirees	Member	Survivor	Life	Ι	II				
\$0-\$499	22	17	5	12	6	4				
\$500-\$999	83	55	28	33	27	23				
\$1,000-\$1,499	84	70	14	48	26	10				
\$1,500-\$1,999	61	53	8	27	29	5				
\$2,000-\$2,499	38	33	5	21	13	4				
\$2,500-\$2,999	24	23	1	12	11	1				
\$3,000-\$3,499	17	13	4	8	7	2				
\$3,500-\$3,999	18	16	2	14	4	0				
\$4,000-\$4,499	7	6	1	4	3	0				
\$4,500-\$4,999	11	8	3	4	5	2				
\$5,000+	12	11	1	7	5	0				
Totals	377	305	72	190	136	51				

#### **Option:**

Life Single life annuity

I Joint and Survivor annuity

II Life plus 50 percent survivors

## Schedule of New Retirees and Average Benefit Payments

Last Ten Years

#### State Employees Retirement Fund

1 7	Years Credited Service							
	0-5	5-10	10-15	15-20	20-25	25-30	30+	Totals
Retirement Effective Dates								
Period 7/1/05 to 6/30/06:								
Average Monthly Benefit	\$137	\$341	\$667	\$945	\$1,237	\$1,547	\$2,310	\$1,203
Number of New Retirees	202	187	165	149	175	188	391	1,457
Average Final Average Salary	\$4,102	\$3,261	\$3,549	\$3,884	\$3,800	\$4,027	\$4,563	\$3,987
Period 7/1/06 to 6/30/07:								
Average Monthly Benefit	\$136	\$371	\$634	\$983	\$1,235	\$1,629	\$2,288	\$1,291
Number of New Retirees	231	174	188	203	218	203	526	1,743
Average Final Average Salary	\$4,317	\$3,267	\$3,266	\$3,686	\$3,782	\$4,075	\$4,525	\$4,004
Period 7/1/07 to 6/30/08:			*=	***		**	** ***	
Average Monthly Benefit	\$147	\$428	\$740	\$1,026	\$1,395	\$1,691	\$2,335	\$1,338
Number of New Retirees	224	184	163	209	198	208	541	1,727
Average Final Average Salary	\$4,435	\$3,737	\$3,728	\$3,928	\$4,089	\$4,227	\$4,568	\$4,203
Period 7/1/08 to 6/30/09:	<b>₫</b> 4 ⊑0	¢ 101	Ф <b>7</b> 4 О	¢1.070	¢1 2 ( 0	<b>₫</b> 4 〒44	<b>#0.2</b> 00	¢1 2 4 7
Average Monthly Benefit	\$150	\$421	\$712	\$1,068	\$1,362	\$1,744	\$2,399	\$1,367
Number of New Retirees	201	183 \$2 719	173	168 \$2.057	176 \$2.952	197 \$4.267	447 \$4.916	1,545
Average Final Average Salary <b>Period 7/1/09 to 6/30/10:</b>	\$4,278	\$3,718	\$3,767	\$3,957	\$3,853	\$4,267	\$4,816	\$4,225
Average Monthly Benefit	\$151	\$433	\$683	\$1,022	\$1,414	¢1 710	\$2,416	¢1 200
Number of New Retirees	پر 252	<del>4</del> 33 204	\$083 178	\$1,022 166	¢1,414 241	\$1,712 199	\$2,410 606	\$1,389 1,846
Average Final Average Salary	\$4,548	\$3,849	\$3,607	\$3,992	\$4,111	\$4,237	\$4,778	\$4,315
Period 7/1/10 to 6/30/11:	ψτ,5τ0	Ψ3,042	ψ3,007	$\psi_{j,j,j,L}$	ψτ,111	ψτ,207	ψτ,770	ψτ,515
Average Monthly Benefit	\$169	\$452	\$752	\$1,159	\$1,498	\$1,772	\$2,534	\$1,527
Number of New Retirees	219	246	240	258	294	260	<b>₹2,</b> 331 782	2,299
Average Final Average Salary	\$4,164	\$3,550	\$3,899	\$4,113	\$4,214	\$4,259	\$4,734	\$4,276
Period 7/1/11 to 6/30/12:	1	11 - <b>3</b>	11 - <b>3</b>			1	1	
Average Monthly Benefit	\$179	\$482	\$813	\$1,169	\$1,551	\$1,947	\$2,673	\$1,512
Number of New Retirees	285	291	299	236	289	235	738	2,373
Average Final Average Salary	\$4,089	\$3,512	\$3,969	\$3,966	\$4,434	\$4,627	\$5,008	\$4,372
Period 7/1/12 to 6/30/13:								
Average Monthly Benefit	\$200	\$520	\$847	\$1,201	\$1,619	\$2,024	\$3,136	\$1,595
Number of New Retirees	241	254	250	216	213	237	503	1,914
Average Final Average Salary	\$4,310	\$3,831	\$3,868	\$4,072	\$4,549	\$4,743	\$5,247	\$4,488
Period 7/1/13 to 6/30/14:								
Average Monthly Benefit	\$158	\$462	\$850	\$1,209	\$1,757	\$2,079	\$2,724	\$1,517
Number of New Retirees	241	253	269	245	200	235	554	1,997
Average Final Average Salary	\$4,680	\$3,809	\$4,226	\$4,363	\$5,005	\$5,041	\$5,224	\$4,695
Period 7/1/14 to 6/30/15:								
Average Monthly Benefit	\$186	\$509	\$930	\$1,245	\$1,723	\$2,111	\$2,850	\$1,650
Number of New Retirees	277	267	284	294	240	287	737	2,386
Average Final Average Salary	\$4,886	\$4,106	\$4,363	\$4,314	\$4,868	\$5,032	\$5,413	\$4,844
Period 7/1/05 to 6/30/15:								
Average Monthly Benefit	\$163	\$450	\$780	\$1,120	\$1,489	\$1,845	\$2,583	\$1,457
Number of New Retirees	2,373	2,243	2,209	2,144	2,244	2,249	5,825	19,287
Average Final Average Salary	\$4,392	\$3,682	\$3,878	\$4,053	\$4,290	\$4,489	\$4,910	\$4,369

#### Notes:

The number of new retirees added in the Schedule of Retirees and Beneficiaries is greater than the number of new retirees here because it includes benefit restarts and qualified domestic relations orders starts.

The Average Final Average Salary is equivalent to the average of the five highest consecutive years of salary, based on service during which member contributions were made.

MSRS 2015 Comprehensive Annual Financial Report -Statistical Section

## Schedule of New Retirees and Average Benefit Payments

Last Ten Years

### **State Patrol Retirement Fund**

	Years Credited Service										
	0-5	5-10	10-15	15-20	20-25	25-30	30+	Totals			
Retirement Effective Dates											
Period 7/1/05 to 6/30/06:											
Average Monthly Benefit	\$0	\$1,104	\$1,903	\$2,664	\$3,504	\$4,742	\$5,180	\$3,94			
Number of New Retirees	0	3	2	4	6	10	10	3.			
Average Final Average Salary	\$0	\$6,345	\$5,656	\$5,931	\$6,358	\$6,471	\$6,592	\$6,36			
Period 7/1/06 to 6/30/07:											
Average Monthly Benefit	\$0	\$1,829	\$1,633	\$3,158	\$3,403	\$4,634	\$3,887	\$3,53			
Number of New Retirees	0	2	1	10	8	6	10	3'			
Average Final Average Salary	\$0	\$5,694	\$4,463	\$6,379	\$5,701	\$6,406	\$4,496	\$5,63			
Period 7/1/07 to 6/30/08:											
Average Monthly Benefit	\$185	\$774	\$1,986	\$2,788	\$3,151	\$4,469	\$4,256	\$3,54			
Number of New Retirees	1	2	3	6	6	12	13	43			
Average Final Average Salary	\$4,992	\$5,020	\$6,769	\$5,475	\$5,304	\$6,093	\$5,918	\$5,81			
Period 7/1/08 to 6/30/09:											
Average Monthly Benefit	\$0	\$788	\$2,053	\$3,471	\$4,204	\$4,435	\$3,842	\$3,793			
Number of New Retirees	0	2	3	2	3	14	11	3			
Average Final Average Salary	\$0	\$6,121	\$5,846	\$5,642	\$6,274	\$6,098	\$6,467	\$6,18			
Period 7/1/09 to 6/30/10:											
Average Monthly Benefit	\$444	\$827	\$1,889	\$0	\$3,652	\$4,840	\$4,343	\$3,44			
Number of New Retirees	4	3	3	0	7	10	10	3'			
Average Final Average Salary	\$5,677	\$3,993	\$5,557	\$0	\$6,061	\$6,858	\$7,092	\$6,30			
Period 7/1/10 to 6/30/11:											
Average Monthly Benefit	\$0	\$0	\$2,406	\$0	\$3,484	\$5,083	\$4,670	\$4,422			
Number of New Retirees	0	0	2	0	6	12	7	2			
Average Final Average Salary	\$0	\$0	\$6,275	\$0	\$6,037	\$6,452	\$3,609	\$5,610			
Period 7/1/11 to 6/30/12:											
Average Monthly Benefit	\$517	\$847	\$2,476	\$2,383	\$4,187	\$5,391	\$6,158	\$4,87			
Number of New Retirees	2	1	3	1	7	13	16	43			
Average Final Average Salary	\$7,934	\$5,957	\$6,634	\$4,165	\$6,785	\$7,278	\$7,361	\$7,111			
Period 7/1/12 to 6/30/13:											
Average Monthly Benefit	\$395	\$0	\$2,323	\$3,202	\$4,297	\$4,756	\$6,296	\$4,590			
Number of New Retirees	2	0	3	1	5	7	10	2			
Average Final Average Salary	\$5,841	\$0	\$6,252	\$5,908	\$7,001	\$7,187	\$7,362	\$6,97			
Period 7/1/13 to 6/30/14:											
Average Monthly Benefit	\$323	\$1,086	\$2,448	\$2,685	\$4,672	\$5,218	\$5,700	\$4,03			
Number of New Retirees	1	4	4	3	6	6	9	3.			
Average Final Average Salary	\$7,171	\$5,687	\$6,535	\$5,968	\$6,923	\$7,017	\$7,317	\$6,77			
Period 7/1/14 to 6/30/15:											
Average Monthly Benefit	\$85	\$2,226	\$2,704	\$3,122	\$4,426	\$5,841	\$6,234	\$4,85			
Number of New Retirees	2	1	2	9	10	17	14	5.			
Average Final Average Salary	\$2,652	\$8,607	\$5,958	\$6,731	\$6,966	\$7,602	\$7,246	\$7,03			
Period 7/1/05 to 6/30/15:											
Average Monthly Benefit	\$356	\$1,111	\$2,217	\$2,990	\$3,896	\$4,994	\$5,131	\$4,12			
Number of New Retirees	12	18	26	36	64	107	110	373			
Average Final Average Salary	\$5,644	\$5,666	\$6,137	\$6,117	\$6,355	\$6,765	\$6,489	\$6,418			

#### Notes:

The number of new retirees added in the Schedule of Retirces and Beneficiaries is greater than the number of new retirees here because it includes benefit restarts and qualified domestic relations orders starts.

The Average Final Average Salary is equivalent to the average of the five highest consecutive years of salary, based on service during which member contributions were made.

<b>Correctional Employees R</b>	Retirement Fund
---------------------------------	-----------------

	Years Credited Service									
	0-5	5-10	10-15	15-20	20-25	25-30	30+	Totals		
Retirement Effective Dates										
Period 7/1/05 to 6/30/06:										
Average Monthly Benefit	\$256	\$778	\$1,125	\$1,711	\$2,198	\$2,950	\$4,089	\$1,590		
Number of New Retirees	12	23	23	21	23	12	5	119		
Average Final Average Salary	\$4,080	\$3,877	\$3,754	\$4,096	\$4,357	\$4,340	\$5,186	\$4,107		
Period 7/1/06 to 6/30/07:										
Average Monthly Benefit	\$339	\$751	\$1,365	\$1,474	\$2,266	\$2,674	\$3,690	\$1,580		
Number of New Retirees	18	33	28	23	18	11	16	147		
Average Final Average Salary	\$4,556	\$3,866	\$4,157	\$3,773	\$4,136	\$4,036	\$4,903	\$4,150		
Period 7/1/07 to 6/30/08:										
Average Monthly Benefit	\$407	\$774	\$1,265	\$1,501	\$2,044	\$2,841	\$3,171	\$1,504		
Number of New Retirees	17	32	18	22	13	17	10	129		
Average Final Average Salary	\$5,018	\$4,059	\$3,815	\$3,592	\$3,967	\$4,367	\$4,667	\$4,150		
Period 7/1/08 to 6/30/09:										
Average Monthly Benefit	\$343	\$822	\$1,318	\$1,567	\$2,315	\$3,003	\$3,458	\$1,671		
Number of New Retirees	19	22	23	23	16	17	12	132		
Average Final Average Salary	\$4,308	\$4,444	\$4,014	\$3,801	\$4,738	\$4,603	\$5,099	\$4,353		
Period 7/1/09 to 6/30/10:										
Average Monthly Benefit	\$440	\$812	\$1,386	\$1,583	\$2,416	\$2,611	\$3,101	\$1,494		
Number of New Retirees	35	28	23	36	21	12	14	169		
Average Final Average Salary	\$4,217	\$4,315	\$4,452	\$3,999	\$4,479	\$4,680	\$4,356	\$4,296		
Period 7/1/10 to 6/30/11:										
Average Monthly Benefit	\$282	\$745	\$1,329	\$1,601	\$2,505	\$3,157	\$4,264	\$1,623		
Number of New Retirees	33	19	20	51	13	23	8	167		
Average Final Average Salary	\$4,421	\$4,081	\$4,161	\$4,011	\$4,594	\$4,294	\$5,408	\$4,269		
Period 7/1/11 to 6/30/12:										
Average Monthly Benefit	\$296	\$645	\$1,050	\$1,575	\$1,884	\$2,571	\$3,248	\$1,289		
Number of New Retirees	34	40	23	1	22	14	13	177		
Average Final Average Salary	\$4,694	\$4,228	\$4,332	\$4,165	\$4,687	\$5,067	\$4,761	\$4,548		
Period 7/1/12 to 6/30/13:										
Average Monthly Benefit	\$267	\$630	\$1,178	\$1,769	\$2,031	\$2,679	\$3,136	\$1,386		
Number of New Retirees	36	35	25	30	29	16	12	183		
Average Final Average Salary	\$4,961	\$4,565	\$4,515	\$4,938	\$4,658	\$5,188	\$5,231	\$4,810		
Period 7/1/13 to 6/30/14:										
Average Monthly Benefit	\$272	\$700	\$1,266	\$1,558	\$1,957	\$2,454	\$3,099	\$1,441		
Number of New Retirees	18	34	23	25	20	7	18	145		
Average Final Average Salary	\$5,160	\$4,402	\$4,654	\$4,394	\$4,756	\$5,346	\$5,368	\$4,749		
Period 7/1/14 to 6/30/15:										
Average Monthly Benefit	\$233	\$790	\$1,243	\$1,669	\$2,026	\$2,715	\$2,966	\$1,648		
Number of New Retirees	24	43	37	35	49	29	27	244		
Average Final Average Salary	\$4,971	\$4,863	\$4,486	\$4,877	\$4,644	\$5,466	\$5,237	\$4,887		
Period 7/1/05 to 6/30/15:										
Average Monthly Benefit	\$315	\$738	\$1,252	\$1,605	\$2,130	\$2,803	\$3,303	\$1,521		
Number of New Retirees	246	309	243	297	224	158	135	1,612		
Average Final Average Salary	\$4,642	\$4,305	\$4,259	\$4,233	\$4,539	\$4,771	\$5,031	\$4,475		

#### Notes:

The number of new retirees added in the Schedule of Retirees and Beneficiaries greater than the number of new retirees here because it includes benefit restarts and qualified domestic relations orders starts.

The Average Final Average Salary is equivalent to the average of the five highest consecutive years of salary, based on service during which member contributions were made.

MSRS 2015 Comprehensive Annual Financial Report -Statistical Section

# Schedule of New Retirees and Average Benefit Payments

#### Last Ten Years

### Judges Retirement Fund

Jungeo 1.000100000000000000000000000000000000	Years Credited Service							
	0-5	5-10	10-15	15-20	20-25	25-30	30+	Totals
Retirement Effective Dates								
Period 7/1/05 to 6/30/06:								
Average Monthly Benefit	\$0	\$1,879	\$3,386	\$4,096	\$5,635	\$5,313	\$0	\$4,678
Number of New Retirees	0	1	2	5	8	1	0	17
Average Final Average Salary	\$0	\$6,685	\$9,256	\$9,397	\$9,453	\$9,200	\$0	\$8,842
Period 7/1/06 to 6/30/07:								
Average Monthly Benefit	\$0	\$2,064	\$2,624	\$3,823	\$5,993	\$0	\$0	\$4,281
Number of New Retirees	0	1	3	3	5	0	0	12
Average Final Average Salary	\$0	\$8,821	\$9,725	\$9,730	\$9,696	<b>\$</b> 0	\$0	\$9,639
Period 7/1/07 to 6/30/08:								
Average Monthly Benefit	\$0	\$2,606	\$3,038	\$4,243	\$5,252	\$5,588	<b>\$</b> 0	\$4,675
Number of New Retirees	0	1	3	2	12	1	0	19
Average Final Average Salary	\$0	\$11,235	\$9,934	\$9,991	\$8,516	\$9,868	\$0	\$9,109
Period 7/1/08 to 6/30/09:								
Average Monthly Benefit	\$0	\$0	\$4,538	\$4,698	\$4,539	\$0	\$0	\$4,594
Number of New Retirees	0	0	1	2	3	0	0	6
Average Final Average Salary	\$0	\$0	\$10,727	\$10,119	\$10,048	\$0	<b>\$</b> 0	\$10,185
Period 7/1/09 to 6/30/10:								
Average Monthly Benefit	<b>\$</b> 0	\$1,347	\$3,383	\$4,880	\$5,975	<b>\$</b> 0	<b>\$</b> 0	\$5,387
Number of New Retirees	0	1	1	2	12	0	0	10
Average Final Average Salary	<b>\$</b> 0	\$7,079	\$10,299	\$10,084	\$10,348	<b>\$</b> 0	<b>\$</b> 0	\$10,108
Period 7/1/10 to 6/30/11:								
Average Monthly Benefit	\$0	\$2,005	\$2,369	\$4,743	\$5,416	<b>\$</b> 0	\$0	\$4,620
Number of New Retirees	0	1	3	6	11	0	0	21
Average Final Average Salary	\$0	\$8,020	\$8,092	\$9,163	\$9,014	<b>\$</b> 0	<b>\$</b> 0	\$8,878
Period 7/1/11 to 6/30/12:	* -					<b>#</b> 0	***	*
Average Monthly Benefit	<b>\$</b> 0	\$1,673	\$3,451	\$5,443	\$6,324	<b>\$</b> 0	<b>\$</b> 0	\$4,898
Number of New Retirees	0	1	8	1	10	0	0	20
Average Final Average Salary	\$0	\$10,045	\$10,175	\$11,833	\$10,734	\$0	<b>\$</b> 0	\$10,531
Period 7/1/12 to 6/30/13:	#007	<b>#</b> 0	#2 007	¢1.000	¢< 01<	<b>#</b> 0	<b>#</b> 0	
Average Monthly Benefit	\$807	\$0 0	\$3,087	\$4,980	\$6,216	\$0 0	\$0 0	\$5,354
Number of New Retirees	¢10.472	0 \$	2 \$11.027	\$ \$11.022	14 \$10.724	0 ¢0	0 ¢0	25 ¢11.000
Average Final Average Salary	\$10,472	\$0	\$11,037	\$11,833	\$10,734	<b>\$</b> 0	\$0	\$11,099
Period 7/1/13 to 6/30/14:	¢0.	¢1 104	\$2 402	¢E ACA	¢< 014	<b>\$</b> 0	¢0.	¢E EZO
Average Monthly Benefit	\$0	\$1,104 1	\$3,423	\$5,464	\$6,914	\$0 0	\$0 0	\$5,568
Number of New Retirees	0		4 \$10.07	4 \$10.706	10 \$10,700	0 ¢0	0	19 \$10,212
Average Final Average Salary <b>Period 7/1/14 to 6/30/15:</b>	\$0	\$5,507	\$10,067	\$10,796	\$10,700	<b>\$</b> 0	\$0	\$10,313
	¢0.	\$2.176	\$2.004	\$4,000	\$6.970	¢0	¢0	¢E 40E
Average Monthly Benefit	\$0 0	\$2,176	\$3,904 2	\$4,999	\$6,870 11	\$0 0	\$0 0	\$5,495 20
Number of New Retirees Average Final Average Salary	\$0	3 \$10,887	ے \$10,854	4 \$10,925		0 \$0	0 \$0	20 \$10.917
Period 7/1/05 to 6/30/15:	ΦÛ	φ10 <b>,</b> 007	φ10 <b>,</b> 054	φ10,923	\$10,934	φU	фU	\$10,917
Average Monthly Benefit	\$807	\$1,921	\$3,244	\$4,735	\$6,020	\$5,451	\$0	\$5.019
Number of New Retirees	\$807 1	\$1,921 10	\$3,244 29	\$4,735 37	\$6,020 96	\$5,451 2	<b>b</b> 0	\$5,018 175
Average Final Average Salary		\$9,005			96 \$10,049	ے \$9,534	\$0	
Average Final Average Salary	φ10 <b>,</b> 472	φ2,005	\$9,939	\$10,403	φ10,049	φ9,004	φU	\$10,004

#### Notes:

The number of new retirees added in the Schedule of Retirces and Beneficiaries is greater than the number of new retirees here because it includes benefit restarts and qualified domestic relations orders starts.

The Average Final Average Salary is equivalent to the average of the five highest consecutive years of salary, based on service during which member contributions were made.

#### Legislators Retirement Fund

Legislators Retiremen	nt Fund Years Credited Service									
	0-5	5-10	10-15	15-20	20-25	25-30	30+	Totals		
Retirement Effective Dates	U J	910	10 1)	1) 20	202)	2) 50	501	Iotuis		
Period 7/1/05 to 6/30/06:										
Average Monthly Benefit	\$690	\$1,161	\$1,627	\$0	\$0	<b>\$</b> 0	<b>\$</b> 0	\$1,102		
Number of New Retirees	₽070 2	φ1,101 5	ψ1,027 1	φ0 0	ψ0 0	ψ0 0	φ0 0	ψ1,10 <u>2</u> 8		
Average Final Average Salary	\$9,298	\$3,090	\$1,650	<b>\$</b> 0	<b>\$</b> 0	\$0	\$0	\$4,462		
Period 7/1/06 to 6/30/07:	Ψ,270	ψ3,070	ψ1,050	ΨŪ	Ψ0	Ψ0	<b>4</b> 0	ψ1,102		
Average Monthly Benefit	\$0	\$1,225	\$1,340	\$1,707	\$2,057	\$2,567	\$3,038	\$1,661		
Number of New Retirees	що 0	** <b>;==</b> 0 7	÷1,0 10 6	2	2	3	¥0,000 1	21		
Average Final Average Salary	<b>\$</b> 0	\$4,552	\$3,749	\$3,923	\$5,465	\$3,452	\$3,257	\$4,131		
Period 7/1/07 to 6/30/08:	₩~	÷ 1,002	₩0 <b>3</b> 1 12	₩0 <b>,7 =</b> 0	<i>we</i> , 100	₩0,10 <u>−</u>	₩0 <b>,2</b> 07	Ψ 1,101		
Average Monthly Benefit	<b>\$</b> 0	\$1,372	\$1,233	\$1,289	\$2,935	\$2,318	\$0	\$1,505		
Number of New Retirees	0	5	5	1	1	1	0	13		
Average Final Average Salary	\$0	\$4,573	\$3,334	\$3,351	\$2,705	\$3,331	\$0	\$3,763		
Period 7/1/08 to 6/30/09:		" )	" )		"	" )		",		
Average Monthly Benefit	\$739	\$1,209	\$1,240	\$1,546	\$2,200	\$3,373	<b>\$</b> 0	\$1,531		
Number of New Retirees		5	5	1	3	1	0	16		
Average Final Average Salary	\$6,741	\$4,410	\$3,433	\$3,275	\$4,378	\$3,284	<b>\$</b> 0	\$4,103		
Period 7/1/09 to 6/30/10:										
Average Monthly Benefit	\$396	\$2,187	\$1,001	\$1,471	\$5,026	\$3,373	<b>\$</b> 0	\$1,670		
Number of New Retirees	2	2	5	1	1	1	0	12		
Average Final Average Salary	\$6,741	\$4,410	\$3,433	\$3,275	\$4,378	\$3,284	\$0	\$4,200		
Period 7/1/10 to 6/30/11:										
Average Monthly Benefit	\$0	\$1,700	\$1,552	\$1,837	\$1,999	\$2,226	\$2,451	\$1,765		
Number of New Retirees	0	7	9	1	3	2	1	23		
Average Final Average Salary	\$0	\$7,785	\$3,255	\$3,345	\$3,436	\$3,338	\$3,468	\$4,678		
Period 7/1/11 to 6/30/12:										
Average Monthly Benefit	<b>\$</b> 0	\$1,235	\$1,444	\$2,481	\$0	<b>\$</b> 0	<b>\$</b> 0	\$1,621		
Number of New Retirees	0	4	1	2	0	0	0	7		
Average Final Average Salary	\$0	\$4,271	\$2,691	\$5,279	\$0	\$0	\$0	\$4,333		
Period 7/1/12 to 6/30/13:										
Average Monthly Benefit	\$664	\$0	\$2,518	\$2,439	\$1,851	\$3,232	\$3,290	\$2,347		
Number of New Retirees	2	0	3	2	2	2	2	13		
Average Final Average Salary	\$6,118	\$0	\$5,098	\$4,682	\$3,381	\$7,461	\$3,549	\$5,052		
Period 7/1/13 to 6/30/14:										
Average Monthly Benefit	\$0	\$1,008	\$1,490	\$0	\$0	\$6,118	<b>\$</b> 0	\$1,888		
Number of New Retirees	0	3	4	0	0	1	0	8		
Average Final Average Salary	<b>\$</b> 0	\$2,718	\$3,391	\$0	\$0	\$8,411	<b>\$</b> 0	\$3,766		
Period 7/1/14 to 6/30/15:		* -			***	* •	* ~			
Average Monthly Benefit	\$831	\$0	\$1,681	\$2,220	\$1,979	<b>\$</b> 0	<b>\$</b> 0	\$1,679		
Number of New Retirees	1	0	6	1	1	0	0	9		
Average Final Average Salary	\$4,845	<b>\$</b> 0	\$4,301	\$3,136	\$3,384	\$0	\$0	\$4,130		
Period 7/1/05 to 6/30/15:	¢	¢1.054	¢1.440	#1.07F	#0.00F	¢2.072	¢2.047	¢1		
Average Monthly Benefit	\$634	\$1,356	\$1,468	\$1,965	\$2,335	\$3,073	\$3,017	\$1,696		
Number of New Retirees	8 ¢( 097	38 \$4.757	45 \$2 505	11 ¢4.014	13	11 \$4.5(0	4 \$2.450	130 \$4.205		
Average Final Average Salary	\$6,987	\$4,757	\$3,595	\$4,014	\$3,969	\$4,569	\$3,456	\$4,295		

#### Notes:

The number of new retirees added in the Schedule of Retirces and Beneficiaries is greater than the number of new retirees here because it includes benefit restarts and qualified domestic relations orders starts.

The Average Final Average Salary is equivalent to the average of the five highest consecutive years of salary, based on service during which member contributions were made.

Effective July 1, 2013, the Elective State Officers Retirement Fund was merged with the Legislators Retirement Fund for administrative cost savings purposes. There have been no new retirees in the Elective State Officers Retirement Fund between fiscal year 2006 and the merger.

MSRS 2015 Comprehensive Annual Financial Report - Statistical Section

## Schedule of Principal Participating Employers

Current Year and Nine Years Ago

	Fi	iscal Year	2015		ar 2006	
	Active		% of Total	Active		% of Total
Participating Employer	Employees	Rank	Active Members	Employees	Rank	Active Members
State Employees Retirement Fund						
State of Minnesota and its component units*	48,622	1	99.15%	47,469	1	98.89%
All Others	415		0.85	531		1.11
Totals	49,037		100.00%	48,000		100.00%
State Patrol Retirement Fund						
State of Minnesota	843	1	100.00%	851	1	100.00%
Correctional Employees Retirement Fund						
State of Minnesota and its component units*	4,445	1	99.92%	3,905	1	99.87%
All Others	4		0.08	5		0.13
Totals	4,449		100.00%	3,910		100.00%
Judges Retirement Fund						
State of Minnesota	312	1	100.00%	303	1	100.00%
Legislators Retirement Fund						
State of Minnesota	23	1	100.00%	76	1	100.00%

	F	iscal Year	2015	Fiscal Year 2006			
	Covered		% of	Covered		% of	
Participating Employer	Employees	Rank	Total Fund	Employees	Rank	Total Fund	
Unclassified Employees Retirement Fund**							
State of Minnesota and its component units*	3,117	1	95.58%	3,110	1	96.02%	
All Others	144		4.42	129		3.98	
Totals	3,261		100.00%	3,239		100.00%	
Health Care Savings Plan**							
State of Minnesota and its component units*	47,853	1	47.93%	9,413	1	31.03%	
Hennepin County	4,618	2	4.63				
Ramsey County	3,248	3	3.25				
Dakota County	2,334	4	2.34	1,270	4	4.19	
City of Minneapolis	1,924	5	1.93	1,803	3	5.94	
Independent School District (ISD) 623 Roseville	1,708	6	1.71	707	7	2.33	
Special School District 1 (SSD) Minneapolis	1,614	7	1.62	2,313	2	7.62	
ISD 728 Elk River	1,265	8	1.27				
City of Duluth	1,194	9	1.20				
Scott County	1,102	10	1.10	944	5	3.11	
Metropolitan Airports Commission				789	6	2.60	
City of Eagan				522	8	1.72	
Douglas County Hospital				472	9	1.56	
Becker County				408	10	1.35	
All Others	32,979		33.02	11,692		38.55	
Totals	99,839		100.00%	30,333		100.00%	

	H	Fiscal Year	r 2015	Fi	scal Year 2	2009***
	Covered		% of	Covered		% of
Minnesota Deferred Compensation Fund	(MNDCP)*	*				
State of Minnesota and its component units*	45,682	1	55.28%	47,058	1	54.09%
SSD 1 Minneapolis	4,661	2	5.64	5,951	2	6.84
Ramsey County	3,400	3	4.12	3,414	3	3.93
City of Minneapolis	3,117	4	3.77	1,230	9	1.42
Hennepin County	1,987	5	2.41	2,446	4	2.81
ISD 625 St. Paul	1,737	6	2.10	2,239	6	2.57
City of St. Paul	1,645	7	1.99	2,246	5	2.58
Anoka County	1,442	8	1.74	1,204	10	1.38
ISD 279 Osseo	1,167	9	1.41	1,401	7	1.61
St. Louis County	1,036	10	1.25			
Dakota County				1,254	8	1.44
All Others	16,767		20.29	18,560		21.33
Totals	82,641		100.00%	87,003		100.00%
Hennepin County Supplemental Retireme	ent Fund**					
Hennepin County	1,153	1	77.33%	1,596	1	78.01%
Hennepin County Medical Center	338	2	22.67	458	2	21.99
Totals	1,491		100.00%	2,054	-	100.00%

* Component units of the State of Minnesota include the Housing Finance Agency, Metropolitan Council, University of Minnesota, Agricultural and Economic Development Board, National Sports Center Foundation, Office of Higher Education, Public Facilities Authority, Rural Finance Authority, Workers' Compensation Assigned Risk Plan, and the Minnesota Sports Facilities Authority.

** Includes all members with account balances.

*** Complete data is unavailable from previous recordkeeper.

MSRS 2015 Comprehensive Annual Financial Report - Statistical Section

209

## Schedule of Participating Employers

As of June 30, 2015

#### State and Component Units

#### State of Minnesota

Minnesota House of Representatives - Employees Minnesota House of Representatives - Members Minnesota State Senate - Employees Minnesota State Senate - Members

Metropolitan Council Minnesota Sports Facilities Authority University of Minnesota

#### Cities

Aitkin Akeley Albert Lea Albertville Alexandria Andover Anoka Apple Valley Arden Hills Aurora Austin Babbitt Backus Bagley Balaton Battle Lake Baudette Baxter Beaver Bay Bemidji Bertha Biwabik Blaine Blooming Prairie Bloomington Blue Earth Bovey Brainerd Breckenridge Breezy Point Brooklyn Center Brooklyn Park Browerville Browns Valley Buffalo Buhl Burnsville Caledonia Calumet Cambridge Cannon Falls Carlton Centerville Champlin Chanhassen Chatfield Chisago Chisholm Circle Pines

Clarissa Cleveland Cloquet Cohasset Cold Spring Coleraine Cologne Columbia Heights Columbus Cook Coon Rapids Corcoran Cottage Grove Cottonwood Crookston Crosby Crosslake Crystal Dassel Dawson Deephaven Deer River Deerwood Detroit Lakes Dilworth Dodge Center Duluth Dundas Eagan East Bethel East Grand Forks East Gull Lake Eden Prairie Eden Valley Edina Elk River Ely Eveleth Fairfax Falcon Heights Faribault Farmington Fergus Falls Floodwood Foley Forest Lake Freeport Gaylord Gilbert Glencoe Golden Valley Goodhue Goodview Grand Marais Grand Rapids Ham Lake Hanover Hastings Hector Henning Hermantown Hibbing Hincklev Holdingford

Hopkins Howard Lake Hoyt Lakes Hutchinson International Falls Inver Grove Heights Isanti Iackson Janesville Jordan Kasson Keewatin La Crescent La Prairie Lake City Lake Shore Lakeville Le Center Le Sueur Lester Prairie Lino Lakes Litchfield Little Falls Littlefork Long Lake Long Prairie Luverne Madelia Mahnomen Mahtomedi Mankato Maple Grove Maple Lake Maplewood Marble Marietta Marshall McGregor Medford Medina Melrose Menahga Mendota Heights Milaca Minneapolis Minnetonka Montevideo Montgomery Monticello Moorhead Moose Lake Mora Morris Mound Mounds View Mountain Iron Nashwauk Nevis New Brighton New Hope New Prague New Ulm New York Mills Newport

Nisswa North St. Paul Northfield Oak Grove Oak Park Heights Oakdale Olivia Orono Osakis Osseo Owatonna Park Rapids Paynesville Pelican Rapids Pierz Pine City Plainview Plummer Preston Prior Lake Proctor Ramsev Red Lake Falls Redwood Falls Richfield Robbinsdale Rochester Rockford Rogers Rosemount Roseville Rush City Rushford Sandstone Sartell Sauk Centre Sauk Rapids Savage Scandia Shakopee Silver Bay Slayton Sleepy Eye South St. Paul Spring Lake Park Spring Valley Springfield St. Anthony St. Charles St. Cloud St. Francis St. James St. Louis Park St. Michael St. Paul St. Paul Park St. Peter Staples Stephen Stewartville Stillwater Thief River Falls Tonka Bay Tower Tracy

Truman Two Harbors Vadnais Heights Vernon Center Victoria Virginia Wabasha Wadena Waite Park Warren Warroad Waseca Waterville Wayzata Wells West St. Paul White Bear Lake Willmar Windom Winnebago Winona Winthrop Woodbury Worthington Wyoming Zumbrota

#### Townships

Balkan Breitung Fayal Franconia New Independence Thomson White Bear White

#### Counties

Anoka Becker Beltrami Benton Blue Earth Brown Carlton Carver Cass Chisago Clay Clearwater Cook Crow Wing Dakota Douglas Faribault Fillmore Goodhue Grant Hennepin Houston Hubbard Isanti Itasca Kanabec Kandiyohi

Koochiching Lake Lake of the Woods Le Sueur Lincoln Lyon Marshall McLeod Mille Lacs Morrison Mower Murray Nicollet Nobles Norman Olmsted Ottertail Pennington Pine Pipestone Polk Pope Ramsey Red Lake Redwood Renville Rock Scott Sherburne Sibley St. Louis Stearns Steele Stevens Swift Todd Wabasha Wadena Waseca Washington Watonwan Wilkin Winona Wright Yellow Medicine

#### Independent School Districts (ISD)

ISD 1 Aitkin ISD 2 Hill City ISD 4 McGregor ISD 11 Anoka - Hennepin ISD 12 Centennial ISD 13 Columbia Heights ISD 14 Fridley ISD 15 St. Francis ISD 16 Spring Lake Park ISD 22 Detroit Lakes ISD 23 Frazee - Vergas ISD 31 Bemidji ISD 47 Sauk Rapids-Rice ISD 51 Folev ISD 75 St. Clair ISD 77 Mankato ISD 81 Comfrey ISD 84 Sleepy Eye Schools ISD 85 Springfield

Continued on next page

## Schedule of Participating Employers

As of June 30, 2015

ISD 88 New Ulm ISD 91 Barnum ISD 93 Carlton ISD 94 Cloquet ISD 95 Cromwell - Wright ISD 97 Moose Lake ISD 99 Esko ISD 100 Wrenshall ISD 108 Central ISD 111 Watertown - Mayer ISD 112 Eastern Carver County ISD 113 Walker - Hackensack - Akeley ISD 115 Cass Lake - Bena ISD 116 Pillager ISD 118 Northland Community ISD 138 North Branch ISD 139 Rush City ISD 150 Hawley ISD 152 Moorhead ISD 162 Bagley ISD 166 Cook County ISD 173 Mountain Lake ISD 177 Windom ISD 181 Brainerd ISD 182 Crosby - Ironton ISD 191 Burnsville - Eagan - Savage ISD 192 Farmington ISD 194 Lakeville ISD 195 Randolph ISD 196 Rosemount - Apple Valley - Eagan ISD 197 West St. Paul - Mendota Heights - Eagan ISD 199 Inver Grove Heights ISD 200 Hastings ISD 203 Hayfield ISD 204 Kasson - Mantorville ISD 206 Alexandria ISD 213 Osakis ISD 227 Chatfield ISD 239 Rushford - Peterson ISD 241 Albert Lea ISD 242 Alden - Conger ISD 252 Cannon Falls ISD 253 Goodhue ISD 255 Pine Island ISD 256 Red Wing ISD 270 Hopkins ISD 271 Bloomington ISD 272 Eden Prairie ISD 273 Edina ISD 276 Minnetonka ISD 277 Westonka ISD 278 Orono ISD 279 Osseo ISD 280 Richfield ISD 281 Robbinsdale ISD 282 St. Anthony - New Brighton ISD 283 St. Louis Park ISD 284 Wayzata ISD 286 Brooklyn Center ISD 294 Houston ISD 297 Spring Grove ISD 299 Caledonia ISD 300 La Crescent - Hokah ISD 306 Laporte ISD 308 Nevis

ISD 309 Park Rapids ISD 314 Braham ISD 316 Greenway ISD 317 Deer River ISD 318 Grand Rapids ISD 319 Nashwauk - Keewatin ISD 330 Heron Lake - Okabena ISD 332 Mora ISD 333 Ogilvie ISD 347 Willmar ISD 361 International Falls ISD 362 Littlefork - Big Falls ISD 363 South Koochiching ISD 381 Lake Superior ISD 390 Lake of the Woods ISD 391 Cleveland ISD 402 Hendricks ISD 403 Ivanhoe ISD 404 Lake Benton ISD 423 Hutchinson ISD 424 Lester Prairie ISD 458 Truman ISD 463 Eden Valley - Watkins ISD 465 Litchfield ISD 466 Dassel - Cokato ISD 473 Isle ISD 477 Princeton ISD 480 Onamia ISD 482 Little Falls ISD 484 Pierz ISD 485 Royalton ISD 486 Swanville ISD 487 Upsala Area ISD 492 Austin ISD 500 Southland ISD 508 St. Peter ISD 518 Worthington ISD 533 Dover - Evota ISD 534 Stewartville ISD 535 Rochester ISD 542 Battle Lake ISD 544 Fergus Falls ISD 548 Pelican Rapids ISD 550 Underwood ISD 553 New York Mills ISD 564 Thief River Falls ISD 581 Edgerton ISD 593 Crookston ISD 595 East Grand Forks ISD 621 Mounds View ISD 622 North St. Paul - Maplewood - Oakdale ISD 623 Roseville ISD 624 White Bear Lake ISD 625 St. Paul ISD 640 Wabasso ISD 656 Faribault ISD 659 Northfield ISD 676 Badger ISD 695 Chisholm ISD 696 Elv ISD 698 Floodwood ISD 700 Hermantown ISD 701 Hibbing ISD 704 Proctor ISD 706 Virginia

ISD 707 Nett Lake ISD 709 Duluth ISD 712 Mountain Iron - Buhl ISD 716 Belle Plaine ISD 717 Jordan ISD 719 Prior Lake - Savage ISD 720 Shakopee ISD 721 New Prague Area ISD 726 Becker ISD 727 Big Lake ISD 728 Elk River ISD 738 Holdingford ISD 739 Kimball ISD 740 Melrose ISD 741 Paynesville ISD 742 St. Cloud ISD 743 Sauk Centre ISD 745 Albany ISD 748 Sartell - St. Stephen ISD 750 Cold Spring ISD 756 Blooming Prairie ISD 761 Owatonna ISD 763 Medford ISD 768 Hancock ISD 771 Chokio - Alberta ISD 775 Kerkhoven - Murdock - Sunburg ISD 786 Bertha - Hewitt ISD 787 Browerville ISD 811 Wabasha - Kellogg ISD 813 Lake City ISD 818 Verndale ISD 820 Sebeka ISD 829 Waseca ISD 831 Forest Lake ISD 832 Mahtomedi ISD 833 South Washington County ISD 834 Stillwater Area ISD 840 St. James ISD 846 Breckenridge ISD 857 Lewiston - Altura ISD 858 St. Charles ISD 861 Winona Area ISD 876 Annandale ISD 877 Buffalo - Hanover - Montrose ISD 879 Delano ISD 881 Maple Lake ISD 883 Rockford ISD 885 St. Michael - Albertville ISD 891 Canby ISD 912 Milaca ISD 914 Ulen - Hitterdal ISD 916 Northeast Metro ISD 935 Fergus Falls Area Special Education Cooperative ISD 998 Bemidji Regional Interdistrict Council (BRIC) ISD 2071 Lake Crystal Wellcome Memorial ISD 2125 Triton ISD 2135 Maple River ISD 2142 St. Louis County ISD 2143 Waterville - Elysian - Morristown ISD 2144 Chisago Lakes ISD 2154 Eveleth - Gilbert ISD 2155 Wadena - Deer Creek ISD 2159 Buffalo Lake - Hector - Stewart ISD 2164 Dilworth - Glyndon - Felton ISD 2165 Hinckley - Finlayson

ISD 2168 New Richland - Hartland - Ellendale - Genera ISD 2169 Murray County Central ISD 2170 Staples - Motley ISD 2172 Kenyon - Wanamingo ISD 2176 Warren - Alvarado - Oslo ISD 2180 MACCRAY ISD 2184 Luverne ISD 2190 Yellow Medicine East ISD 2198 Fillmore Central ISD 2364 Belgrade - Brooten - Elrosa ISD 2396 Atwater - Cosmos - Grove City ISD 2448 Martin County West ISD 2534 Bird Island - Olivia - Lake Lillian (BOLD) ISD 2580 East Central ISD 2609 Win-E-Mac ISD 2687 Howard Lake - Waverly - Winsted ISD 2689 Pipestone ISD 2711 Mesabi East ISD 2752 Fairmont Area ISD 2753 Long Prairie - Grey Eagle ISD 2759 Eagle Vallev ISD 2805 Zumbrota - Mazeppa ISD 2835 Janesville - Waldorf - Pemberton ISD 2859 Glencoe - Silver Lake ISD 2860 Blue Earth Area ISD 2884 Red Rock Central ISD 2886 Glenville - Emmons ISD 2887 McLeod West ISD 2890 Renville County West ISD 2895 Jackson County Central ISD 2897 Redwood Area ISD 2898 Westbrook - Walnut Grove ISD 2899 Plainview - Elgin - Millville ISD 2903 Ortonville ISD 2904 Tracy Area ISD 2906 Red Lake County Central ISD 2907 Round Lake - Brewster

#### Other Educational Entities

Benton Stearns Education District 6383 East Metro Integration District 6067 Freshwater Education District Great Expectations School Hmong College Prep Academy Intermediate School District 287 Intermediate School District 917 International Spanish Language Academy Lake Agassiz Special Education Cooperative Meeker & Wright Special Education Cooperative Mid-State Education District 6979 Minnesota Valley Education District New Visions School Northland Learning Center Northwest Passage High School PACT Charter School Region 1-ESV (Education Secondary Vocational) Southern Plains Education Cooperative SouthWest Metro Education Cooperative 6088 Special School District (SSD) 1 Minneapolis Spectrum High School SSD 6 South St. Paul St. Paul Conservatory Technology & Information Education Services (TIES) West Central Education District 6026 West Metro Education Program Wright Technical Center

#### Other Employers

Adrian Public Utilities Commission AFSCME Agricultural Utilization Research Institute Aitkin Public Utilities Commission Alexandria Lake Area Sanitary District Alexandria Light & Power Amalgamated Transit Union Anoka Conservation District Anoka-Champlin Fire Department Arrowhead Library System Arrowhead Regional Computing Consortium Arrowhead Regional Development Commission Austin Utilities Avera Marshall Regional Medical Center **Bagley Public Utilities** Becker County SWCD (Soil and Water Conservation District) Beltrami Area Service Collaborative Beltrami SWCD Benton County SWCD Blue Earth Light & Water Brainerd HRA (Housing & Redevelopment Authority) Brainerd Public Utilities Brown County SWCD Carlton County SWCD Carver County CDA (Community Development Agency) Carver County SWCD CCLNS Joint Powers Board #3 Centennial Lakes Police Department Chippewa County - Montevideo Hospital Chippewa County SWCD Chisholm Hibbing Airport Commission Clearwater County Health Service Clearwater County Highway Department Columbia Heights HRA Cook County North Shore Hospital Cook Hospital Cottonwood County Welfare Crosslake Communications Dakota Communications Center Dakota County CDA Dawson Municipal Liquor Store Delano Municipal Utilities Dodge SWCD Douglas County Hospital Duluth Entertainment Convention Center (DECC) Duluth HRA Duluth Seaway Port Authority Duluth Teachers Retirement Fund Association Duluth Transit Authority East Central Regional Development Commission East Central Regional Library East Grand Forks Water & Light East Range Public Safety Board EdVisions Cooperative, Inc Elk River Municipal Utilities Enterprise Minnesota Fair Oaks Lodge Nursing Home Fillmore County SWCD FirstLight Health System Freeborn County SWCD

Gaylord Community Hospital Gillette Children's Specialty Healthcare Glencoe Area Health Center Glencoe Light & Power Commission Grand Marais Public Utilities Commission Grand Rapids Public Utilities Commission Great River Regional Library Greater Staples Hospital & Care Center Greenwood Connections Halstad Municipal Utilities Hennepin County Medical Center Heritage Living Center - Hubbard County Hibbing Public Utilities Hinckley Firehouse Liquor Horizon Public Health Hutchinson Utilities Commission International Union of Operating Engineers Itasca County SWCD Itasca Medical Center - Grand Rapids Itasca Nursing Home - Grand Village Kandiyohi Area Transit Kandiyohi SWCD Keewatin Public Utilities Lake Agassiz Regional Library Lakes Area Police League of Minnesota Cities Legislative Coordinating Commission Lincoln County SWCD Littlefork Medical Center LOGIS (Local Government Information Systems) Madelia Municipal Light & Power Mahnomen SWCD Marshall SWCD Marshall Municipal Utilities Meeker County/Meeker Memorial Hospital Metropolitan Airports Commission Metropolitan Library Service Agency (MELSA) Metropolitan Mosquito Control District Middle Management Association Middle Mississippi River Watershed Management Mid-Minnesota Development Commission Mille Lacs SWCD Minneapolis Public Housing Agency Minnesota Association of Professional Employees Minnesota Association of Secondary School Principals Minnesota Counties Intergovernmental Trust Minnesota Crop Improvement Association Minnesota Government Engineers Council (MGEC) Minnesota Historical Society Minnesota Horticultural Society Minnesota Inter-County Association Minnesota Prairie County Alliance Minnesota Safety Council Minnesota Valley Regional Library Minnesota Valley Transit Authority Moorhead Public Housing Agency Moose Lake Water & Light Commission Mora Public Utilities Morrison SWCD Mower SWCD Murray County Memorial Hospital National Joint Powers Alliance New Prague Golf Course

Continued on next page

## **Schedule of Participating Employers**

As of June 30, 2015

New Prague Municipal Utilities New River Medical Center New Ulm Public Utilities Nicollet SWCD Norman County SWCD Norman - Mahnomen Public Health North Branch Municipal Water & Light North St. Louis SWCD Northeast Minnesota Office of Job Training Northeast Service Coop #927 Northern Dakota County Cable Communications Commission (NDC4) Northfield Hospital Northwest Regional Development Commission Ottertail Water Management District Owatonna Public Utilities Paynesville Area Health Care System Pelican River Watershed District Pennington County SWCD Pine County SWCD Pioneerland Library System Pipestone County Medical Center Port Authority of City of St. Paul Preston Public Utilities Prior Lake-Spring Lake Watershed District Proctor Public Utilities Quad Cities Cable Communication Commission Ramsey-Washington Metro Watershed District Red River Valley Conservation Service Area Red Rock Rural Water System Redwood Area Hospital Redwood SWCD Region Five Development Commission Regions Hospital Renville County SWCD Resource Training & Solutions Rice County Auditor/Treasurer Rice County SWCD Rice County District One Hospital Rice Creek Watershed District Rice Home Medical Rice Memorial Hospital River's Edge Hospital & Clinic Sauk Centre Public Utilities Scott County SWCD Shakopee Public Utilities Commission Sherburne County SWCD Sleepy Eye Medical Center Sleepy Eye Public Utilities South Central Service Cooperative South Country Health Alliance South Metro Fire Department South St. Louis County SWCD South Washington Watershed District Southern Minnesota Municipal Power Agency Southwest Prairie Technical Service Area Southwest Regional Development Commission Spirit Mountain Recreation Area Spring Lake Park Fire Department St. Cloud Area Planning Organization St. Cloud HRA St. Cloud Metropolitan Transit Commission St. Louis & Lake Counties Regional Railroad Authority St. Michael's Hospital & Nursing Home St. Paul Public Housing Agency St. Paul Teachers Retirement Fund

State Fair Stearns County SWCD Steele County SWCD Stevens SWCD Sunnyside Care Center-Becker County Sunrise Home - Two Harbors Southwest Health and Human Services Three Rivers Park District Todd County SWCD Traverse Des Sioux Library Tri-County Community Corrections Tri-City Police Department United Hospital District Upper Minnesota Valley Regional Development Commission Utilities Plus Veolia Environmental Services Viking Library System Virginia Public Utilities Virginia Regional Medical Center Wabasha County SWCD Waseca-Le Sueur Regional Library Washington County HRA Washington County SWCD Wells Public Utilities West Hennepin County Public Safety West Ottertail County SWCD Western Lake Superior Sanitary District Wild Rice Electric Coop Wilkin County SWCD Willmar Municipal Utilities Windom Area Hospital Worthington Regional Hospital

This page is intentionally left blank.

MSRS 2015 Comprehensive Annual Financial Report - Statistical Section





MSRS Minnesota State Retirement System MNDCP Minnesota Deferred Compensation Plan HCSP Health Care Savings Plan

60 Empire Drive, Suite 300, St. Paul, MN 55103 Telephone: 651-296-2761 | Toll-free: 1-800-657-5757 Email: info@msrs.us | Fax: 651-297-5238 www.msrs.state.mn.us