

**Michigan State Employees' Retirement System**  
A Pension and Other Employee Benefit Trust Fund of the State of Michigan

**Comprehensive Annual Financial Report  
for the Fiscal Year Ended September 30, 2014**



**M S E R S**

Prepared by:  
Financial Services  
for  
Office of Retirement Services  
P.O. Box 30171  
Lansing, Michigan 48909-7671  
517-322-5103  
1-800-381-5111

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# INTRODUCTORY SECTION

Certificate of Achievement  
Public Pension Standards Award  
Letter of Transmittal  
Retirement Board Members  
Advisors and Consultants  
Organization Chart

# **INTRODUCTORY SECTION**

## **Certificate of Achievement**



Government Finance Officers Association

### **Certificate of Achievement for Excellence in Financial Reporting**

Presented to

### **Michigan State Employees' Retirement System**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**September 30, 2013**

A handwritten signature in black ink, appearing to read "Jeffrey R. Enos". The signature is written in a cursive, flowing style.

Executive Director/CEO

# INTRODUCTORY SECTION

## Public Pension Standards Award



Public Pension Coordinating Council

### ***Public Pension Standards Award For Funding and Administration 2014***

Presented to

### ***Michigan Office of Retirement Services***

In recognition of meeting professional standards for  
plan funding and administration as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

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

Alan H. Winkle  
Program Administrator

# **INTRODUCTORY SECTION**

## **Letter of Transmittal**

**State Employees' Retirement System**  
P.O. Box 30171  
Lansing, Michigan 48909  
Telephone 517-322-5103  
Outside Lansing 1-800-381-5111

### **STATE OF MICHIGAN**

RICK SNYDER, Governor

## **DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET**

January 16, 2014

The Honorable Rick Snyder  
Governor, State of Michigan,

Members of the Legislature  
State of Michigan,

Retirement Board Members  
and  
Members, Retirees and Beneficiaries

Ladies and Gentlemen:

We are pleased to present the comprehensive annual financial report of the Michigan State Employees' Retirement System (System) for fiscal year 2014.

### **INTRODUCTION TO REPORT**

The System was established by legislation under Public Act 240 of 1943 (the Michigan State Employees' Retirement Act) and is administered by the Office of Retirement Services (ORS). The number of active and retired members and beneficiaries of the System and a list of participating employers is presented in Note 1 of the financial statements in the Financial Section of this report. The purpose of the System is to provide benefits for all State employees. The services performed by the ORS staff provide benefits to members.

#### ***Responsibility***

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the leadership team of the System. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the System.

#### ***Internal Control Structure***

The leadership team of the System is responsible for maintaining adequate internal accounting controls designed to provide reasonable assurance that transactions are executed in accordance with management's general or specific authorization, and are recorded as necessary to maintain accountability for assets and to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America. The internal

## **Letter of Transmittal (continued)**

control structure is designed to provide reasonable assurance regarding the safekeeping of assets and reliability of all financial records. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management. This internal control structure includes maintaining written policies and procedures. Discussion and analysis of net position and related additions and deductions are presented in the Management Discussion and Analysis which can be found immediately following the Independent Auditor's Report.

### ***Independent Auditors and Actuary***

The Office of the Auditor General (OAG), independent auditors, conducted an annual audit of the System. The independent auditor's report on the System's financial statements is included in the Financial Section of this report.

Statute requires an annual actuarial valuation be conducted. The purpose of the valuation is to evaluate the mortality, service, compensation and other financial experience of the System and to recommend employer-funding rates for the subsequent year. The annual actuarial valuation was completed by Gabriel Roeder Smith & Company for the fiscal year ended September 30, 2013. Actuarial certification and supporting statistics are included in the Actuarial Section of this report.

### ***Management's Discussion and Analysis (MD&A)***

Generally Accepted Accounting Principles (GAAP) require that management provide a narrative introduction, overview, and analysis to accompany the Basic Financial Statements in the form of MD&A. This letter of transmittal is intended to complement MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditor's Report.

## **PROFILE OF THE GOVERNMENT**

The System was established by Public Act 240 of 1943 and is administered by a nine-member board under the direction of the Executive Secretary. Public Act 216 of 1974 eliminated the requirement for member contributions and provided for financing by legislative appropriation and investment earnings.

Effective March 31, 1997, Public Act 487 of 1996 closed the plan to new applicants. All new employees become members of the State's defined contribution plan. The public act also allows for returning employees and members who left state employment on or before March 31, 1997, to elect the defined benefit plan instead of the defined contribution plan.

## **ECONOMIC CONDITIONS AND OUTLOOK**

Despite challenging economic times, the System continues to show steady performance over the long-term.

### ***Investments***

The State Treasurer is the investment fiduciary and custodian of all investments of the System pursuant to State law. The primary investment objective is to maximize the rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to eliminate inordinate risks and to meet the actuarial assumption for the investment return rate. The investment activity for the year produced a total rate of return on the portfolio of 15.5% for the Pension Plan and 15.1% for the Other Postemployment Benefits (OPEB) Plan. For the last five years, the System has experienced an annualized rate of return of 11.2% for the Pension Plan. A summary of asset allocation and rates of return can be found in the Investment Section of this report.

# INTRODUCTORY SECTION

## Letter of Transmittal (continued)

### *Accounting System*

Transactions of the System are reported on the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when incurred. Participants' benefits are recorded when payable by law. We believe the accounting and administrative internal controls established by the System provide reasonable assurance the System is carrying out its responsibilities in safeguarding its assets, in maintaining the reliability of the financial records for preparing the financial statements, and in maintaining accountability for its assets.

### *Funding*

Funds are derived from the excess of additions to plan net position over deductions from plan net position. Funds are accumulated by the System to meet future benefit obligations to retirees and beneficiaries. The percentage computed by dividing the actuarial value of assets by the actuarial accrued liability is referred to as the "funded ratio." This ratio provides an indication of the funding status of the System and generally, the greater this percentage, the stronger the System.

**Pension** – The actuarial value of the assets and actuarial accrued liability of the System were \$9.4 billion and \$15.6 billion, respectively, resulting in a funded ratio of 60.3% on September 30, 2013. A historical perspective of funding levels for the Pension Plan is presented on the Schedule of Funding Progress in the Statistical Section of this report.

**Postemployment Benefits** – Prefunding for postemployment benefits began in fiscal year 2013. The actuarial value of the assets and actuarial accrued liability were \$663.5 million and \$8.2 billion respectively resulting in a funded ratio of 8.1% at September 30, 2013. GASB Statement No. 43 (implemented in fiscal year 2007) does not require retroactive application of the reporting changes. Therefore, only eight valuation years are presented on the Schedule of Funding Progress in the Required Supplemental Information (RSI) in the Financial Section of this report.

### **MAJOR GOALS ACCOMPLISHED**

Insurance initiatives provide savings for system - ORS undertook an initiative to reduce system insurance costs. This initiative audited for ineligible dependents and could save the system \$2.6 million.

Two major projects to improve processes - ORS began two long-term projects that will improve how we handle our financial and insurance processes. Business Process Reengineering will improve the processes for producing financial statements and this report. The Insurance Process Redesign will update ORS's insurance software and processes to allow us to adapt to the demands of a changing insurance market. One of the first changes eliminated approximately 6,500 forms being scanned, imaged, and processed by ORS, saving an estimated 1,083 hours of work.

Updates to websites and miAccount continue to improve online user experience - All websites and miAccount were upgraded with a new look and feel, which concludes the first phase of the miAccount redesign. The updates were based on recommendations from the Department of Technology, Management & Budget's User Experience Team and include enhancements like improved readability, more intentional use of color, and a unified ORS brand across all systems. To provide better customer service to our reporting units and human resource departments, the employer websites have been redesigned and made responsive, meaning the content changes based on the device it is viewed on.

Staff training in process mapping - As a process-based organization, ORS needs staff to be skilled at creating, editing, and using process mapping tools for analysis and improvement. To that end, a new program is in place to train and certify staff in using process mapping tools. The course introduces trainees to systems (process) thinking, and teaches how to construct and analyze process flow charts, as well as how to implement process change.

# INTRODUCTORY SECTION

## Letter of Transmittal (continued)

Get Fit initiative and indoor walking track - This year ORS saw the start of the Get Fit team, which encourages health and wellness for staff. Using an inset carpet design, ORS created a dedicated indoor walking track inside one of the office's wings. Data shows staff members are more productive and use less sick time. In addition, 25 percent of all staff lost weight in a weight loss challenge.

Communication initiative focused on retirement applications - ORS started a new communication approach to keep retirement applicants better informed during the application process. The goal of the project is to instill customer confidence in the process so applicants don't feel they need to call to check on their application. Comparing April through July 2014 with the same time period in 2013, ORS reduced calls from pending applicants by 31 percent with an overall decrease in contacts from this population of 17 percent.

Board meetings now paperless - At the State Employees Retirement System board meeting on July 24, four board members and all ORS staff used a web-based program to view meeting materials. This was a move to transition all board meetings to paperless meetings, eliminating the large paper-filled binders currently being used. The program will now be rolled out to all remaining boards for use at their next meetings.

### HONORS

**Public Pension Standards Award:** The Public Pension Coordinating Council awarded the retirement system with the 2014 Public Pension Standards Award for Funding and Administration.

**Government Finance Officers Association award:** The Government Finance Officers Association (GFOA) of the United States and Canada awarded the retirement system with the Certificate of Achievement for Excellence in Financial Reporting for our fiscal year 2013 Comprehensive Annual Financial Report (CAFR). This marks the 23rd consecutive year ORS has received this prestigious award.

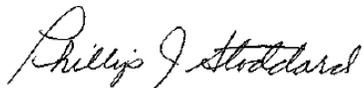
### *Acknowledgements*

The preparation of this report was accomplished with the dedication and cooperation of many people. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible stewardship of the funds of the System.

We would, therefore, like to express our appreciation for the assistance given by staff, advisors, and the many people who contributed to its preparation. We believe their combined efforts have produced a report that will enable employers and plan members to better evaluate and understand the Michigan State Employees' Retirement System. Their cooperation contributes significantly to the success of the System.



David B. Behen, Director  
Department of Technology, Management & Budget



Phillip J. Stoddard, Director  
Office of Retirement Services

# INTRODUCTORY SECTION

## Administrative Organization

### Retirement Board Members \*

Vernon Johnson  
Retiree Member  
Term Expires July 31, 2016

Molly Jason  
Representing Attorney General  
Ex officio

John Gnodtke  
Representing State Personnel Director  
Ex officio

Matthew Fedorchuk  
Employee Member  
Term Expires July 31, 2015

Craig Murray, Chair  
Representing Deputy Auditor General  
Ex officio

Robert L. Brackenbury  
Representing State Treasurer  
Ex officio

Douglas Johnson, Vice Chair  
Retiree Member  
Term Expires July 31, 2015

Randall S. Gregg  
Representing Commissioner of  
Financial & Insurance Regulation  
Ex officio

Ruth Schwartz  
Employee Member  
Term Expires July 31, 2017

\* Statute provides that board members may continue to serve after their term expires until they are either replaced or reappointed.

### Administrative Organization

**Department of Technology,  
Management & Budget  
Office of Retirement Services  
P.O. Box 30171  
Lansing, Michigan 48909-7671  
517-322-5103  
1-800-381-5111**

### Advisors and Consultants

**Actuary**  
Gabriel Roeder Smith & Co.  
Mita D. Drazilov  
Southfield, Michigan

**Independent Auditors**  
Doug A. Ringler, C.P.A., C.I.A.  
Auditor General  
State of Michigan

**Investment Manager and Custodian**  
R. Kevin Clinton  
State Treasurer  
State of Michigan

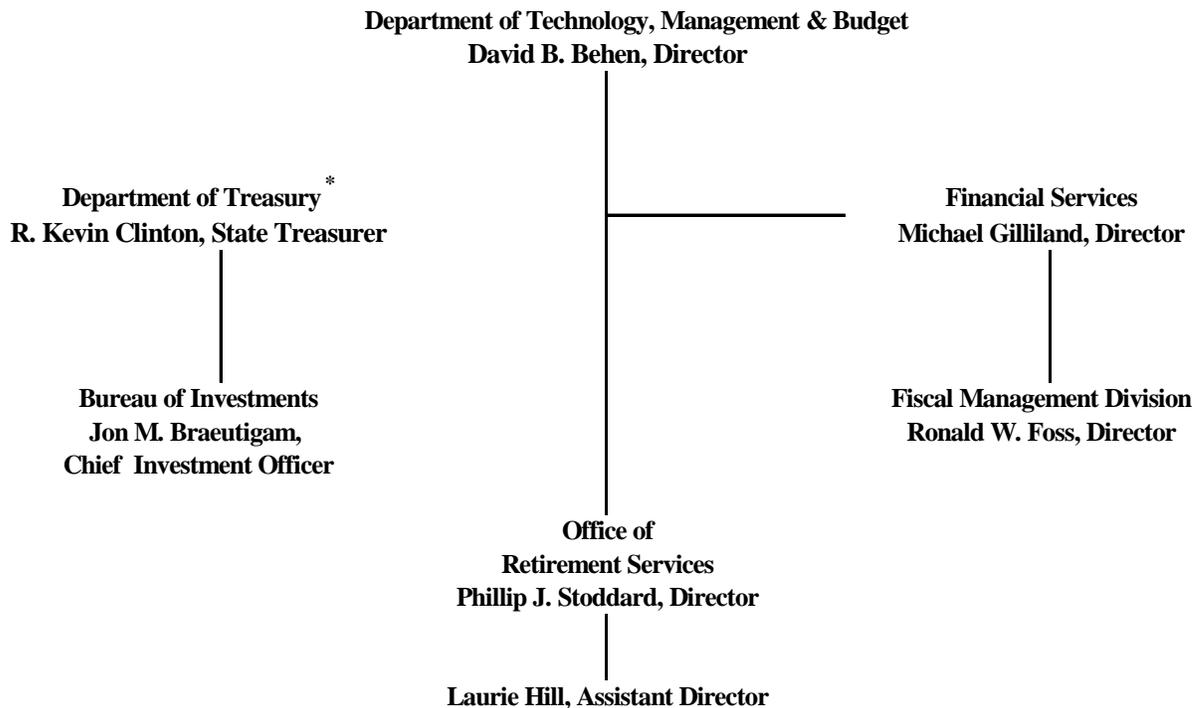
**Legal Advisor**  
Bill Schutte  
Attorney General  
State of Michigan

**Investment Performance  
Measurement**  
State Street Corporation  
State Street Investment Analytics  
Boston, MA

# INTRODUCTORY SECTION

## Administrative Organization (continued)

### Organization Chart



\* The investments of the System are managed by the Michigan Department of Treasury. Information on the investments and the fiduciary, Michigan Department of Treasury, can be found in the Investment Section, Introduction. In addition, see the Investment Section, Schedule of Investment Fees and Schedule of Investment Commissions, for information regarding the investment fees and commissions paid as well as investment professionals utilized by the System.

# ***INTRODUCTORY SECTION***

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# FINANCIAL SECTION

Independent Auditor's Report  
Management's Discussion and Analysis  
Basic Financial Statements  
Notes to Basic Financial Statements  
Required Supplementary Information  
Note to Required Supplementary Information  
Supporting Schedules



# OAG

Office of the Auditor General

201 N. Washington Square, Sixth Floor • Lansing, Michigan 48913 • Phone: (517) 334-8050 • <http://audgen.michigan.gov>

Doug A. Ringler, CPA, CIA  
Auditor General

Independent Auditor's Report on the Financial Statements  
and Other Reporting Required by *Government Auditing Standards*

Michigan State Employees' Retirement System Board  
and  
Mr. David B. Behen, Director  
Department of Technology, Management, and Budget  
and  
Mr. Phillip J. Stoddard, Director  
Office of Retirement Services

Dear Board, Mr. Behen, and Mr. Stoddard:

**Report on the Financial Statements**

We have audited the accompanying financial statements of the Michigan State Employees' Retirement System as of and for the fiscal year ended September 30, 2014 and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

**Management's Responsibility for the Financial Statements**

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

**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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the 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 control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe 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 in the first paragraph present fairly, in all material respects, the fiduciary net position of the Michigan State Employees' Retirement System as of September 30, 2014 and the changes in its fiduciary net position for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 6 to the financial statements, the Michigan State Employees' Retirement System adopted Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans - an amendment of GASB Statement No. 25*, for the fiscal year ended September 30, 2014. Our opinion is not modified with respect to this matter.



# OAG

Office of the Auditor General

Doug A. Ringler, CPA, CIA  
Auditor General

Michigan State Employees' Retirement System Board  
Mr. David B. Behen, Director  
Mr. Phillip J. Stoddard, Director  
Page 2

### **Other Matters**

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 16 through 19 and the schedule of funding progress - other postemployment benefit plan, schedule of changes in net pension liability, schedule of net pension liability, schedules of contributions, schedule of investment returns, and related note on pages 45 through 48 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by GASB who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with 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.

#### *Other Information*

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The supporting schedules and the introductory, investment, actuarial, and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supporting schedules 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. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with 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 also issue a report on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and 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 internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Sincerely,

Doug Ringler  
Auditor General  
January 16, 2015

# FINANCIAL SECTION

## Management's Discussion and Analysis

Our discussion and analysis of the Michigan State Employees' Retirement System's (System) financial performance provides an overview of the System's financial activities for the fiscal year ended September 30, 2014. Please read it in conjunction with the transmittal letter in the Introductory Section on page 6 and the basic financial statements, which follow this discussion.

### FINANCIAL HIGHLIGHTS

- System assets exceeded liabilities at the close of fiscal year 2014 by \$12.0 billion (reported as *net position*). Net position is restricted to meet future benefit payments.
- Additions for the year were \$3.2 billion, which are comprised primarily of contributions of \$1.5 billion and investment gains of \$1.6 billion.
- Deductions increased over the prior year from \$1.7 billion to \$1.7 billion or 2.6%.

### THE STATEMENT OF PLAN FIDUCIARY NET POSITION AND THE STATEMENT OF CHANGES IN PLAN FIDUCIARY NET POSITION

This Comprehensive Annual Financial Report (CAFR) consists of two financial statements; *The Statement of Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position* (page 20) and *The Statement of Changes in Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position* (page 21). These financial statements report information about the System, as a whole, and about its financial condition that should help answer the question: Is the System, as a whole, better off or worse off as a result of this year's activities? These statements include all assets and liabilities using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, all revenues and expenses are taken into account regardless of when cash is received or paid.

*The Statement of Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position* presents all of the System's assets and liabilities, with the difference between the two reported as net position. Over time, increases and decreases in net position measures whether the System's financial position is improving or deteriorating. *The Statement of Changes in Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position* presents how the System's net position changed during the most recent fiscal year. These two financial statements should be reviewed along with the Schedule of Net Pension Liability (page 46) the Schedule of Funding Progress – Other Postemployment Benefits Plan (page 45) and Schedules of Contributions (page 47) to determine whether the System is becoming financially stronger or weaker and to understand changes over time in the funded status of the System.

# FINANCIAL SECTION

## Management's Discussion and Analysis (continued)

### FINANCIAL ANALYSIS

System total assets as of September 30, 2014 were \$12.9 billion and were mostly comprised of cash, investments, and contributions due from employers. Total assets increased \$1.4 billion or 12.3% between fiscal years 2013 and 2014 due primarily to net investment gains.

Total liabilities as of September 30, 2014, were \$849 million and were comprised of warrants outstanding, accounts payable, and obligations under securities lending. Total liabilities decreased \$36.7 million or (4.1)% between fiscal years 2013 and 2014 due primarily to decreased obligations under securities lending.

System assets exceeded its liabilities at the close of fiscal year 2014 by \$12.0 billion. Total net position restricted for pension and OPEB increased \$1.4 billion or 13.7% between fiscal years 2013 and 2014 due primarily to an increase in investments.

	<b>Fiduciary Net Position</b> (in thousands)		
	<b>2014</b>	<b>2013</b>	<b>Increase (Decrease)</b>
<b>Assets</b>			
Equity in common cash	\$ 134,291	\$ 187,774	(28.5) %
Receivables	154,064	144,930	6.3
Investments	11,801,653	10,469,023	12.7
Securities lending collateral	791,755	669,859	18.2
<b>Total Assets</b>	<b>12,881,763</b>	<b>11,471,585</b>	<b>12.3</b>
<b>Liabilities</b>			
Warrants outstanding	34	95	(64.2)
Unearned Revenue	9	16	(43.8)
Accounts payable and other accrued liabilities	29,531	33,056	(10.7)
Amounts due to other funds		97	(100.0)
Obligations under securities lending	819,365	852,350	(3.9)
<b>Total Liabilities</b>	<b>848,938</b>	<b>885,614</b>	<b>(4.1)</b>
<b>Total Net Position</b>	<b>\$ 12,032,825</b>	<b>\$ 10,585,971</b>	<b>13.7 %</b>

# FINANCIAL SECTION

## Management's Discussion and Analysis (continued)

### ADDITIONS TO PLAN NET POSITION

The reserves needed to finance pension and other postemployment benefits are accumulated through the collection of employer contributions and through earnings on investments. Contributions and net investment gains for fiscal year 2014 totaled \$3.2 billion.

Total additions for fiscal year 2014 increased \$522.6 million from those of fiscal year 2013 due primarily to increases in contributions and net investment income. Total employer contributions increased between fiscal years 2013 and 2014 by \$112.8 million or 8.7% due to an increase in contribution rates. Member contributions decreased between fiscal years 2013 and 2014 by \$(8.6) million or (9.0)%. Net investment income increased between fiscal years 2013 and 2014 by \$405.6 million or 32.7%. The Investment Section of this report reviews the results of investment activity for fiscal year 2014.

### DEDUCTIONS FROM PLAN NET POSITION

The primary expenses of the System include the payment of pension benefits to members and beneficiaries, payment for health, dental and vision benefits, refunds of contributions to former members, and the cost of administering the System. Total deductions for fiscal year 2014 were \$1.7 billion, an increase of 2.6% over fiscal year 2013 deductions.

Payments for health care benefits for members and beneficiaries increased by \$5.9 million or 1.2% from \$485.7 million to \$491.6 million during the fiscal year. The payment of pension benefits increased by \$35.0 million or 2.9% between fiscal years 2013 and 2014. In fiscal year 2014, pension benefit expenses increased due to an increase in benefit payments to retirees and an increase of 761 retirees. Refunds increased by \$55 thousand or 45.8% between fiscal years 2013 and 2014. Administrative and other expenses increased by \$4.2 million from \$28.3 million in fiscal year 2013 to \$32.5 million in fiscal year 2014.

#### Changes in Plan Fiduciary Net Position (in thousands)

	2014	2013	Increase (Decrease)
<b>Additions</b>			
Member contributions	\$ 87,969	\$ 96,625	(9.0) %
Employer contributions	1,406,039	1,293,194	8.7
Other governmental contributions	54,945	41,514	32.4
Net investment income	1,644,891	1,239,318	32.7
Transfers from other systems		1	(100.0)
Miscellaneous income	102	681	(85.0)
<b>Total Additions</b>	<b>3,193,946</b>	<b>2,671,334</b>	<b>19.6</b>
<b>Deductions</b>			
Pension benefits	1,222,881	1,187,911	2.9
Health care benefits	491,569	485,707	1.2
Refunds of contributions	175	120	45.8
Transfers to other systems		8	(100.0)
Administrative and other expenses	32,467	28,262	14.9
<b>Total Deductions</b>	<b>1,747,092</b>	<b>1,702,009</b>	<b>2.6</b>
<b>Net Increase (decrease)</b>	<b>1,446,854</b>	<b>969,324</b>	<b>49.3</b>
<b>Net Position - Beginning of Year</b>	<b>10,585,971</b>	<b>9,616,647</b>	<b>10.1</b>
<b>Net Position - End of Year</b>	<b>\$ 12,032,825</b>	<b>\$ 10,585,971</b>	<b>13.7 %</b>

# **FINANCIAL SECTION**

## **Management's Discussion and Analysis (continued)**

### **RETIREMENT SYSTEM AS A WHOLE**

The System's overall Fiduciary Net Position experienced an increase in fiscal year 2014. The System's rate of return for the Pension Plan investments increased an overall 3.0% from a 12.5% in fiscal year 2013 to a 15.5% return during fiscal year 2014. The System's rate of return for the OPEB Plan's investments increased an overall 3.7% from a 11.4% return in fiscal year 2013 to at 15.1% return during fiscal year 2014. Management believes that the System remains financially sound and positioned to meet its ongoing benefit obligations due, in part, to a prudent investment program, cost controls, and strategic planning.

### **CONTACTING SYSTEM FINANCIAL MANAGEMENT**

This financial report is designed to provide the Retirement Board, our membership, taxpayers, investors, and creditors with a general overview of the System's finances and to demonstrate the System's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Office of Retirement Services, P.O. Box 30171, Lansing, MI 48909-7671.

# FINANCIAL SECTION

## Statement of Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position

As of September 30, 2014 (in thousands)

	Pension Plan	OPEB Plan	Total
<b>Assets:</b>			
Equity in common cash	\$ 117,593	\$ 16,698	\$ 134,291
Receivables:			
Amounts due from members	344		344
Amounts due from employer	53,070	31,112	84,182
Amounts due from federal agencies		33,056	33,056
Amounts due from other funds	130		130
Amounts due from others		14,038	14,038
Amounts due from employers long term	20,805		20,805
Interest and dividends	1,385	126	1,510
Total receivables	75,733	78,332	154,064
Investments:			
Short term investment pools	573,185	38,442	611,628
Fixed income pools	1,271,343	118,702	1,390,045
Domestic equity pools	3,266,962	306,708	3,573,671
Real estate and infrastructure pools	1,004,241	93,937	1,098,178
Alternative investment pools	1,873,670	174,860	2,048,530
International equity pools	1,664,428	155,438	1,819,865
Absolute return pools	1,153,387	106,350	1,259,736
Total investments	10,807,215	994,438	11,801,653
Security lending collateral	725,740	66,014	791,755
<b>Total assets</b>	<b>11,726,282</b>	<b>1,155,481</b>	<b>12,881,763</b>
<b>Liabilities:</b>			
Warrants outstanding	32	2	34
Unearned Revenue		9	9
Accounts payable and other accrued liabilities	396	29,135	29,531
Obligations under securities lending	751,048	68,316	819,365
<b>Total liabilities</b>	<b>751,476</b>	<b>97,462</b>	<b>848,938</b>
<b>Net Position Restricted for Pension Benefits and OPEB:</b>	<b>\$ 10,974,806</b>	<b>\$ 1,058,019</b>	<b>\$ 12,032,825</b>

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

# FINANCIAL SECTION

## Statement of Changes in Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position

For Fiscal Year Ended September 30, 2014 (in thousands)

	Pension Plan	OPEB Plan	Total
<b>Additions:</b>			
Contributions:			
Member contributions	\$ 47,527	\$ 40,441	\$ 87,969
Employer contributions	705,100	700,938	1,406,039
Other governmental contributions		54,945	54,945
Total contributions	752,628	796,325	1,548,952
Investment income (loss):			
Net increase (decrease)			
in fair value of investments	1,349,252	101,445	1,450,697
Interest, dividends, and other	206,964	15,613	222,576
Investment expenses:			
Real estate operating expenses	(441)	(32)	(473)
Other investment expenses	(32,199)	(2,253)	(34,452)
Securities lending activities:			
Securities lending income	18,326	1,659	19,985
Securities lending expenses	(12,319)	(1,123)	(13,442)
Net investment income (loss)	1,529,583	115,308	1,644,891
Miscellaneous income	43	60	102
<b>Total additions</b>	2,282,254	911,692	3,193,946
<b>Deductions:</b>			
Benefits paid to plan members and beneficiaries:			
Retirement benefits	1,222,881		1,222,881
Health benefits		446,022	446,022
Dental/vision benefits		41,621	41,621
Personal health care		3,908	3,908
Health reimbursement account		18	18
Refunds of contributions	152	23	175
Administrative and other expenses	6,931	25,536	32,467
<b>Total deductions</b>	1,229,964	517,128	1,747,092
<b>Net Increase (Decrease) in Net Position</b>	1,052,290	394,564	1,446,854
<b>Net Position Restricted for Pension Benefits and OPEB:</b>			
<b>Beginning of Year</b>	9,922,516	663,455	10,585,971
<b>End of Year</b>	\$ 10,974,806	\$ 1,058,019	\$ 12,032,825

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

# **FINANCIAL SECTION**

## **Notes to Basic Financial Statements**

### **NOTE 1 - PLAN DESCRIPTION**

#### **ORGANIZATION**

The Michigan State Employees' Retirement System (System) is a single-employer, state-wide, defined benefit public employee retirement plan governed by the State of Michigan (State) and created under Public Act 240 of 1943, as amended. Section 2 of this act establishes the board's authority to promulgate or amend the provisions of the System. The board consists of nine members - four appointed by the Governor which consist of two employee members and two retirant members, the insurance commissioner, attorney general, state treasurer, deputy legislative auditor general, and state personnel director, who serves as an ex-officio member. The System's pension plan was established by the State to provide retirement, survivor and disability benefits to the State's government employees. In addition, the System's OPEB plan provides all retirees with the option of receiving health, dental, and vision coverage under the Michigan State Employees' Retirement Act. The System is a qualified pension trust fund under section 401(a) of the Internal Revenue Code. By statute, employees of the following employers are also covered by this plan: American Legion, American Veterans, Veterans of Foreign Wars, Disabled American Veterans, Mackinac Island State Park, Marine Corps League, Michigan Bar Association, Business Enterprise Program, Third Circuit Court, Records Court and 36th District Court. Although the System reports information for several small employers, the State is legally responsible for almost all contractually required contributions to the System. This level of responsibility is ongoing and is unlikely to change significantly in the foreseeable future. Therefore, the reporting requirements for a single employer plan have been adopted.

The System's financial statements are included as a pension and other employee benefit trust fund in the State of Michigan Comprehensive Annual Financial Report.

The System is administered by the Office of Retirement Services within the Michigan Department of Technology, Management & Budget. The Department Director appoints the Office Director, with whom the general oversight of the System resides. The State Treasurer serves as the investment officer and custodian for the System.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### MEMBERSHIP

At September 30, 2014, the System's membership consisted of the following:

Inactive plan members or their beneficiaries currently receiving benefits	
Regular benefits	47,103
Survivor benefits	7,001
Disability benefits	3,511
<b>Total</b>	<u>57,615</u>
Inactive plan members entitled to but not yet receiving benefits	<u>4,553</u>
Active plan members:	
Vested	15,057
Non-vested	382
<b>Total</b>	<u>15,439</u>
<b>Total plan members</b>	<u><u>77,607</u></u>

At September 30, 2003, the System recognized 116 participants in the Defined Contribution (DC) Plan who elected to retire under the Early Out Retirement program. This program provided a .25% incentive for those DC members who qualified, which will be provided by the System. These 116 participants have not been included in the pension membership schedule above.

Enrollment in the health plan is voluntary. The number of participants is as follows:

<b>Health, Dental, and Vision Plan</b>	<u><b>2014</b></u>
Eligible participants	56,499
Participants receiving benefits:	
Health	49,986
Dental	50,713
Vision	50,602
Defined Contribution participants receiving benefits:	
Health	729
Dental	779
Vision	770

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### BENEFIT PROVISIONS - PENSION

#### *Introduction*

Benefit provisions of the defined benefit pension plan are established by State statute, which may be amended. Public Act 240 of 1943, State Employees' Retirement Act, as amended, establishes eligibility and benefit provisions for the defined benefit pension plan. Retirement benefits are determined by final average compensation and years of service. Members are eligible to receive a monthly benefit when they meet certain age and service requirements. The System also provides duty disability, non-duty disability and survivor benefits.

A member who has separated from employment may request a refund of his or her member contribution account. A refund may cancel a former member's rights to future benefits. However, former members who return to employment and who previously received a refund of their contributions may reinstate their service through repayment of the refund upon satisfaction of certain requirements.

Effective March 31, 1997, Public Act 487 of 1996 closed the plan to new entrants. All new employees become members of the defined contribution plan. The Public Act allows returning employees and members who left State employment on or before March 31, 1997, to elect the defined benefit plan instead of the defined contribution plan.

Public Act 185 of 2010, established a pension supplement. Members who retired under the retirement incentive of the legislation agreed to forfeit accumulated leave balances, excluding banked leave time; in exchange they receive a pension supplement for 60 months to their retirement allowance payments equal to 1/60 of the amount forfeited from funds, beginning January 1, 2011.

#### *Pension Reform of 2012*

On December 15, 2011, the Governor signed Public Act 264 of 2011 into law. The legislation granted members a choice regarding their future retirement plan. They had the following options:

- **Option 1: DB Classified.** Members voluntarily elected to remain in the DB plan for future service and contribute 4% of their annual compensation to the pension fund until they terminate state employment. The 4% contribution began on April 1, 2012.
- **Option 2: DB 30.** Members voluntarily elected to remain in the DB plan for future service and contribute 4% of pay until they reach 30 years of service. When they reach 30 years of service, they will switch to the State's DC plan. The 4% contribution began April 1, 2012, and continues until they switch to the DC plan or terminate employment, whichever comes first.
- **Option 3: DB/DC Blend.** Members voluntarily elected not to pay the 4% and therefore became participants in the DC plan for future service beginning April 1, 2012. As a DC plan participant they receive a 4% employer contribution to their 401(k) account and are eligible for an additional dollar-for-dollar employer match of up to 3% of pay to the plan.

Deferred members of the DB plan (with 10 or more years of service) who are reemployed by the State on or after January 1, 2012, become participants in the DC plan. Their pension calculation is determined by their final average compensation (FAC) and years of service as of March 31, 2012. They retain their eligibility for the retiree health insurance premium subsidy offered by the State.

Former nonvested members of the DB plan (with less than 10 years of service) who are reemployed by the State on or after January 1, 2012 and before January 1, 2014, become participants in the DC plan. When they have earned sufficient service credit for vesting (10 years) they would be eligible for a pension based on their FAC and years of service in the DB plan as of March 31, 2012. They retain their eligibility for the retiree health insurance premium subsidy offered by the State.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

Former nonvested members (with less than 10 years of service) of the DB plan who are reemployed by the State on or after January 1, 2014 become members of the DC plan. Any service credit previously earned would count towards vesting for the DC plan. They will not be eligible for any pension or retiree health insurance coverage premium but will become a participant in the Personal Healthcare Fund where they will contribute up to 2% of their compensation to a 401(k) or 457 account, earning a matching 2% employer contribution. They will also receive a credit into a health reimbursement account (HRA) at termination if they terminate employment with at least 10 years of service. The credit will be \$2,000 for participants who are at least 60 years old or \$1,000 for participants who are less than 60 years old at termination.

### ***Regular Retirement***

The retirement benefit is based on a member's years of credited service (employment) and FAC. The normal benefit equals 1.5% of a member's FAC multiplied by the years and partial year of credited service and is payable monthly over the member's lifetime.

Under PA 264 of 2011, FAC is initially determined as the annual average of the highest three years of compensation (including overtime paid before January 1, 2012, but excluding overtime paid after December 31, 2011). If the end date for the initial FAC calculation is between January 1, 2012, and January 1, 2015, then a prorated amount of post-2008 average overtime will be added to the initial FAC calculation. If the end date for the initial FAC calculation is January 1, 2015, or later, then an annual average of overtime – for the six-year period ending on the FAC calculation date – will be added to that initial FAC calculation to get the final FAC number.

For members who switch to the DC plan for future service, the pension calculation FAC times 1.5% times years of service) will be determined as of the point the member switches to the DC plan. If the FAC period includes the date of the switch to the DC plan, then the FAC will include up to 240 hours of accrued annual leave multiplied by the rate of pay as of the date of the switch. The hours will be paid at separation.

A member may retire and receive a monthly benefit after attaining:

1. age 60 with 10 or more years of credited service; or
2. age 55 with 30 or more years of credited service; or
3. age 55 with at least 15 but less than 30 years of credited service. The benefit allowance is permanently reduced 0.5% for each month from the member's age on the effective date of retirement to the date the member will attain age 60.

Employees in covered positions are eligible for supplemental benefits and may retire after attaining:

1. age 51 with 25 or more years in a covered position; or
2. age 56 with 10 or more years in a covered position.

In either case, the three years immediately preceding retirement must have been in a covered position. Employees in covered positions are responsible for the custody and supervision of inmates.

Employees of closing Department of Community Health facilities are eligible for retirement under one of the following conditions:

1. age 51 with 25 years of service, the last 5 of which were rendered in the closing facility; or
2. age 56 with 10 years of service, the last 5 of which were rendered in the closing facility; or
3. 25 years of service at the closing facility regardless of age.

Employees of the State Accident Fund, Michigan Biologic Products, or Liquor Control Commission who were terminated as the result of privatization may retire if the member's age and length of service was equal to or greater than 70 on the date of transfer or termination.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

Conservation Officers (CO) with a hire date on or before April 1, 1991, are eligible to retire after 25 years of service, 20 of which must have been rendered as a CO. COs hired after April 1, 1991, and before March 31, 1997, must have 23 years of service as a CO to be eligible for a full retirement benefit with only 25 years of service. In either case, two years immediately preceding retirement must be as a CO.

### *Deferred Retirement*

Any member with 10 or more years of credited service who terminates employment but has not reached the age of retirement is a deferred member and is entitled to receive a monthly pension upon reaching age 60, provided the member's accumulated contributions have not been refunded. Deferred retirement is available after five years of service for State employees occupying unclassified positions in the executive and legislative branches and certain Department of Community Health employees subject to reduction in force lay-offs by reason of deinstitutionalization.

### *Non-Duty Disability Benefit*

A member with 10 or more years of credited service who becomes totally and permanently disabled not due to performing duties as a State employee is eligible for a non-duty disability pension. The non-duty disability benefit is computed in the same manner as an age and service allowance based upon service and salary at the time of disability.

### *Duty Disability Benefit*

A member who becomes totally and permanently disabled from performing duties as a State employee as a direct result of State employment and who has not met the age and service requirement for a regular pension, is eligible for a duty disability pension. Public Act 109 of 2004 amended the State Employees' Retirement Act to change the calculation of the pension benefit and increase the minimum annual payment. If the member is under age 60, the duty disability allowance is now a minimum of \$6,000 payable annually. At age 60 the benefit is recomputed under service retirement.

### *Survivor Benefit*

Upon the death of a member who was vested, the surviving spouse shall receive a benefit calculated as if the member had retired the day before the date of death and selected a survivor pension. Certain designated beneficiaries can be named to receive a survivor benefit. Public Act 109 of 2004 amended the State Employees' Retirement Act to change the calculation of Duty Death benefits and redefines eligibility for deceased member's survivors. The new minimum duty-related death benefit has been increased to \$6,000.

### *Pension Payment Options*

When applying for retirement, an employee may name a person other than his or her spouse as a beneficiary if the spouse waives this right. If a beneficiary is named, the employee must choose whether the beneficiary will receive 100%, 75% or 50% of the retiree's pension benefit after the retiree's death. The decision is irrevocable. A description of the options follows.

Regular Pension - The pension benefit is computed with no beneficiary rights. If the retiree made contributions while an employee and has not received the total accumulated contributions before death, a refund of the balance of the contributions is made to the beneficiary of record. If the retiree did not make any contributions, there will not be payments to beneficiaries.

100% Survivor Pension - Under this option, after the retiree's death, the beneficiary will receive 100% of the pension for the remainder of the beneficiary's lifetime. If this option is elected, the normal retirement benefit is reduced by a factor based upon the ages of the retiree and of the beneficiary. If the beneficiary predeceases the retiree, the pension "pops-up" to the regular pension amount; another beneficiary cannot be named.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

75% Survivor Pension - Under this option, after the retiree's death, the beneficiary will receive 75% of the pension for the remainder of the beneficiary's lifetime. If this option is elected, the normal retirement benefit is reduced by a factor based upon the ages of the retiree and of the beneficiary. The reduction factor is lower than the factor used in the 100% option previously described. If the beneficiary predeceases the retiree, the pension "pops-up" to the regular pension amount; another beneficiary cannot be named.

50% Survivor Pension - Under this option, after the retiree's death, the beneficiary will receive 50% of the pension for the remainder of the beneficiary's lifetime. If this option is elected, the normal retirement benefit is reduced by a factor based upon the ages of the retiree and of the beneficiary. The reduction factor is lower than the factor used in the 100% or 75% option previously described. If the beneficiary predeceases the retiree, the pension "pops-up" to the regular pension amount; another beneficiary cannot be named.

Equated Pension - An equated pension may be chosen by any member under age 65 except a disability retiree and an early supplemental retiree. Equated pensions provide an additional amount until age 65 and may be combined with Regular, 100%, 75% or 50% option. At age 65 the monthly amount is permanently reduced. The initial and reduced amounts are based on an estimate of social security benefits at age 65, provided by the Social Security Administration Office. In order to calculate this benefit, members choosing this option must provide ORS with an estimate from the Social Security Administration Office. The actual amount received from social security may vary from the estimate.

### ***Post Retirement Adjustments***

One-time upward benefit adjustments were made in 1972, 1974, 1976, 1977 and 1987. Beginning October 1, 1988, a 3% non-compounding increase, up to a maximum of \$25 monthly, is paid each October to recipients who have been retired 12 full months. Beginning in 1983, eligible benefit recipients share in a distribution of investment income earned in excess of 8% annually. This distribution is known as the supplemental payment. The supplemental payment is offset by one year's cumulative increases received after the implementation of the annual 3% increase in benefits. These adjustment payments were not issued during fiscal years 1991 through 1994. Members who retired on or after October 1, 1987, are not eligible for the supplemental payment.

### ***Contributions***

Member Contributions - Under Public Act 264 of 2011, members who voluntarily elected to remain in the DB plan contribute 4% of compensation to the retirement system. In addition, members may voluntarily contribute to the System for the purchase of creditable service, such as military service or maternity leave, or a universal buy-in. If a member terminates employment before a retirement benefit is payable, the member's contribution and interest on deposit may be refunded. If the member dies before being vested, the member's contribution and interest are refunded to the designated beneficiaries.

Employer Contributions - The statute requires the employer to contribute to finance the benefits of plan members. These employer contributions are determined annually by the System's actuary and are based upon level-dollar value funding principles so the contribution rates do not have to increase over time.

### ***Banked Leave Time***

Public Act 33 of 2004 amended the State Employees' Retirement Act to include Banked Leave Time (BLT) for members. BLT is an extension of the State's current annual leave program, which banks a predetermined number of hours per pay period. However, the BLT program will not have an effect on a member's final average compensation calculation.

## **BENEFIT PROVISIONS - OTHER POSTEMPLOYMENT**

Benefit provisions of the postemployment benefit plan are established by State statute, which may be amended. Public Act 240 of 1943, as amended, establishes eligibility and benefit provisions for the OPEB plan. Defined Benefit (Tier 1) members are eligible to receive health, prescription drug, dental, and vision coverage on the first day they start receiving pension benefits. Defined Contribution (Tier 2) participants who elected to retain the graded premium subsidy benefit under the reform elections of Public Act 264 of 2011, are also eligible to receive subsidized health

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

prescription drug, dental and vision coverage after terminating employment, if they meet eligibility requirements. There is no provision for ad hoc or automatic increases. The State Employees' Retirement Act requires joint authorization by DTMB and the Civil Service Commission to make changes to retiree medical benefit plans. Defined Contribution (Tier 2) participants who elected the Personal Healthcare Fund under Public Act 264 of 2011, and those hired on or after January 1, 2012, are not eligible for any subsidized health, prescription drug, dental or vision coverage in retirement, but may purchase it at their own expense (certain conditions apply).

Former nonvested members of the DB plan who are reemployed by the state on or after January 1, 2014 are not eligible for retiree health insurance coverage premium but will become a participant in the Personal Healthcare Fund described on page 25.

Public Act 185 of 2010 required that each actively employed member or qualified participants of the System, beginning with the first pay date after November 1, 2010, and ending September 30, 2013, contribute an amount equal to 3.0% of the member's or qualified participant's compensation toward retiree healthcare. Public Act 264 of 2011 rescinded that provision and refunded any collected contributions to all members.

In addition to member contributions, the employer funds OPEB benefits for both Tier 1 and Tier 2 members on a prefunded basis. Retirees with the premium subsidy benefit contribute 20% of the monthly premium amount for the health (including prescription coverage), dental and vision coverage. Retirees with a graded premium subsidy benefit accrue credit towards insurance premiums in retirement, earnings a 30% subsidy with ten years of service, with an additional 3% subsidy for each year of service thereafter, not to exceed the maximum allowed by statute, or 80%. The employer's payroll contribution rate to provide this benefit was 23.60% for fiscal year 2013.

Retirees are provided with life insurance coverage equal to 25% of the active life insurance coverage, \$1,000 for spouse and \$1,000 for each dependent under age 23. Premiums are fully paid by the State.

The number of participants and other relevant financial information are as follows:

<b>Health, Dental and Vision Plan</b>	<b>2014</b>
Eligible Participants	56,499
Participants receiving benefits:	
Health	49,986
Dental	50,713
Vision	50,602
Defined Contribution participants receiving benefits:	
Health	729
Dental	779
Vision	770
Expenses for the year	\$ 517,128,110
Employer payroll contribution rate	24.19%

## NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### *Basis of Accounting and Presentation*

The System's financial statements are prepared using the accrual basis of accounting. Contributions from the State are recognized as revenue when due and payable. Benefits and refunds are recognized when due and payable in accordance with the terms of the System.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

GASB Statement No. 67, which was adopted during the year ended September 30, 2014, addresses accounting and financial reporting requirements for pension plans. The requirements for GASB Statement No. 67 require changes in presentation of the financial statements, notes to the financial statements, and required supplementary information. Significant changes include an actuarial calculation of total and net pension liability. It also includes comprehensive footnote disclosure regarding the pension liability, the sensitivity of the net pension liability to the discount rate, and increased investment activity disclosures. The implementation of GASB Statement No. 67 did not significantly impact the accounting for accounts receivable and investment balances. The total pension liability, determined in accordance with GASB Statement No. 67, is presented in Note 4 on page 32 and in the Required Supplementary Information on page 46.

### **Reserves**

Public Act 240 of 1943, as amended, created the Reserve for Employee Contributions, Reserve for Employer Contributions, Reserve for Retired Benefit Payments, Reserve for Undistributed Investment Income, and Reserve for Health (OPEB) Related Benefits. The financial transactions of the System are recorded in these reserves as required by Public Act 240 of 1943, as amended.

Reserve for Employee Contributions – Beginning April 2012, members contribute 4% of their compensation to this reserve as well as purchases of eligible service credit and repay previously refunded contributions. This reserve represents active member contributions and interest less amounts transferred to the Reserve for Retired Benefit Payments for regular and disability retirement, amounts refunded to terminated members and unclaimed amounts transferred to the income account. At September 30, 2014, the balance in this reserve was \$237.5 million.

Reserve for Employer Contributions - All employer contributions are credited to this reserve. Interest from the income account is credited annually. Amounts are transferred annually from this reserve to the Reserve for Retired Benefit Payments to fund that reserve. At September 30, 2014, the balance in this reserve was \$(.5) billion.

Reserve for Retired Benefit Payments - This represents the reserves for payment of future retirement benefits to current retirees. At retirement, a member's accumulated contributions plus interest are transferred into this reserve from the Reserve for Employee Contributions. Monthly benefits, which are paid to the retiree, reduce the reserve. At the end of each fiscal year, an amount determined by an annual actuarial valuation is transferred from the Reserve for Employer Contributions to this reserve to bring the reserve into balance with the actuarial present value of retirement allowances. At September 30, 2014, the balance in this reserve was \$11.9 billion.

Reserve for Undistributed Investment Income - The net investment earnings (losses) are recorded in this reserve. Interest as authorized by the board is transferred annually to the other reserves. Administrative expenses are paid from this reserve. At September 30, 2014, the net balance of this reserve was \$(663.1) million.

Reserve for Health (OPEB) Related Benefits – This reserve is credited with employee and employer contributions for retirees' health (including prescription coverage), dental, and vision benefits. Starting in fiscal year 2012, the employer contribution is based on a prefunded basis and represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liability (or funding excess) over a period not to exceed thirty years. In addition, starting in fiscal year 2013, this reserve includes revenue from the federal government for retiree drug subsidy payment (RDS) pursuant to the provisions of Medicare Part D and for the Employee Group Waiver Plan (EGWP). Premiums for health, dental and vision benefits are paid from this reserve. At September 30, 2014 the balance in this reserve was \$1.1 billion.

### **Reporting Entity**

The System is a pension and other employee benefit trust fund of the State. As such, the System is considered part of the State and is included in the State's Comprehensive Annual Financial Report as a pension and other employee benefit trust fund. The System and its Board are not financially accountable for any other entities or other organizations. Accordingly, the System is the only entity included in this financial report.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### *Benefit Protection*

Public Act 100 of 2002 was passed by the Michigan Legislature to protect pension benefits of public employees from alienation (being transferred). Alienation is attachment, garnishment, levy, execution, bankruptcy or other legal process except for divorce orders or eligible domestic relation orders. The statutes governing the System contained an “anti-alienation” clause to provide for this protection; however, many smaller public pension systems did not have the benefit of this protection. Therefore, Public Act 100 of 2002 was passed to establish legal protection of pension assets that encompasses all public employees.

### *Fair Value of Investments*

Plan investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Corporate bonds not traded on a national or international exchange are based on equivalent values of comparable securities with similar yield and risk. The fair value of private investments is based on the net asset value reported in the financial statements of the respective investment entity. The net asset value is determined in accordance with governing documents of the investment entity, and is subject to an independent annual audit. Securities purchased with cash collateral under securities lending activities are recorded at estimated fair value. Other investments not having an established market are recorded at estimated fair value.

### *Investment Income*

Dividend and interest income are recognized on the accrual basis. Fair value changes are recorded as investment income or loss. Purchases and sales of investments are recorded as of the trade date (the date upon which the transaction is initiated), except for purchase and sale of mortgages, real estate, and alternative investments, which are recorded as of the settlement date (the date upon which the transaction is ultimately completed). The effect of recording such transactions as of the settlement date does not materially affect the financial statements.

### *Cost of Administering the System*

Each year a restricted general fund appropriation is requested to fund the on-going business operations of the System. These administrative costs are ultimately funded by the System through the regular transfer of funds from the System to the State’s general fund based on either a direct cost or allocation basis depending on the nature of the expense. Costs of administering the System are financed by undistributed investment income of the System.

### *Property and Equipment*

Office space is leased from the State on a year-to-year basis. Office equipment is capitalized if the value exceeds \$5,000. These assets are recorded at cost and are reported net of depreciation in the Statement of Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position. Such assets are depreciated on a straight-line basis over 10 years. As of September 30, 1998, all capitalized equipment was fully depreciated. No additional equipment has been capitalized for the System since that date.

### *Related Party Transactions*

Leases and Services - The System leases operating space and purchases certain administrative, data processing, legal and investment services from the State. The space and services are not otherwise available by competitive bid.

The following summarizes costs incurred by the System for such services:

	<u>2014</u>
	(in thousands)
Building Rentals	\$ 144
Technological Support	2,480
Attorney General	369
Investment Services	3,135
Personnel Services	1,872

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

Cash - On September 30, 2014, the System had \$134.3 million in a common cash investment pool maintained for various State operating funds. The participating funds in the common cash pool earn interest at various rates depending upon prevailing short-term interest rates. Expenses from these activities amounted to \$16.0 thousand for the year ended September 30, 2014.

### NOTE 3 – CONTRIBUTIONS AND FUNDED STATUS

#### *Contributions*

The State is required by Public Act 240 of 1943, as amended, to contribute amounts necessary to finance the coverage of members and retiree OPEB. Members currently participate in the System on a contributory basis of 4% of the annual compensation. Under certain circumstances, members may contribute to the System for the purchase of creditable service, such as military service or maternity leave. Effective August 1, 1998, the retirement act was amended to permit a universal buy-in. With a universal buy-in, a member may elect to purchase no more than 5 years of service credit (less other service credit purchased). Contribution provisions are specified by State statute and may be amended only by action of the State Legislature.

Employer contributions to the System are determined on an actuarial basis using the entry age normal actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated on a level basis over the service of the individual between entry age and assumed exit age. The portion of this cost allocated to the current valuation year is called the normal cost. The remainder is called the actuarial accrued liability. Normal cost is funded on a current basis. For retirement and OPEB, the unfunded (overfunded) actuarial accrued liability as of the September 30, 2014 valuation will be amortized over a 22 year period. The schedule below summarizes pension contribution rates in effect for fiscal year 2014.

<u>Benefit Structure</u>	<u>Member</u>	<u>Employer</u>
Defined Benefit*	0.0 - 4.0 %	26.04 - 30.00 %
Defined Contribution	0.0	22.78

\* Employee Contributions are not mandatory if the member's pension is frozen.

Actual employer contributions for other postemployment benefits (OPEB) were \$700.9 million for fiscal year 2014, representing 24.3% of annual covered payroll for the year ended September 30, 2013. The fiscal year 2014 annual covered payroll is not yet available. Required employer contributions based on previous year actuarial valuations for OPEB included:

1. \$96.9 million for fiscal year 2014 for the normal cost of OPEB representing 9.0% (before reconciliation) of annual covered payroll for fiscal years 2013.
2. \$522.6 million for fiscal year 2014 for amortization of unfunded actuarial accrued liability representing 48.7% (before reconciliation) of annual covered payroll for fiscal years 2013.

The System is required to reconcile with actuarial requirements annually. Any funding excess or deficiency for pension benefits is smoothed over five years. One fifth (20%) of the funding excess or deficiency is included in each of the subsequent years' contribution, and is not recognized as a payable or receivable in the accounting records.

In March 2001, the Internal Revenue Service issued a private letter ruling allowing the System's members to purchase service credit and repay refunds using tax-deferred (pre-tax) dollars. The program was implemented and payments began in fiscal year 2002.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

The program allows members to purchase service credit and repay refunds on a tax-deferred basis. Members sign an irrevocable agreement that identifies the contract duration, monthly payment, total contract amount and years of service credit being purchased. The duration of the contract can range from 1 to 20 years. The amounts are withheld from the members' paycheck and are treated as employer pick-up contributions pursuant to Internal Revenue Code Section 414(h). At September 30, 2014, there were 2,427 agreements. Agreement amounts that will not be collected within 12 months are discounted using the assumed actuarial rate of return of 8%. The average length remaining of a contract was approximately 9.3 years for 2014. The short-term receivable was \$3.8 million and the discounted long-term receivable was \$16.0 million at September 30, 2014.

### *Funded Status*

Participating employers are required to contribute at an actuarially determined rate for OPEB. For fiscal year 2013, the actuarial accrued liability (AAL) for OPEB was \$8.2 billion, and the actuarial value of assets was \$663.5 million, resulting in an unfunded actuarial accrued liability (UAAL) of \$7.4 billion and a funded ratio of 8.1%. The covered payroll (annual payroll of active employees covered by the plan) was \$2.9 billion, and the ratio of the UAAL to the covered payroll was 291.6%.

## NOTE 4 - NET PENSION LIABILITY

### *Measurement of the Net Pension Liability*

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

#### Net Pension Liability (in thousands)

Total Pension Liability	\$	16,121,945
Plan Fiduciary Net Position		10,974,806
Net Pension Liability	\$	<u>5,147,139</u>
Plan Fiduciary the Net Position as a Percentage		
of Total Pension Liability		68.07 %
Net Pension Liability as a percentage		
of Covered Payroll		511.32 %
Total Covered Payroll	\$	1,006,633

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### *Long-Term Expected Return on Plan Assets*

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

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return*</u>
Domestic Equity Pools	28.0 %	4.8 %
International Equity Pools	16.0	6.1
Alternative Investment Pools	18.0	8.5
Real Estate and Infrastructure Pools	10.0	5.3
Fixed Income Pools	10.5	1.5
Absolute Return Pools	15.5	6.3
Short Term Investment Pools	2.0	(0.2)
<b>TOTAL</b>	<u>100.0 %</u>	

\* Rate of return does not include 2.5% inflation

### *Rate of Return*

For the year ended September 30, 2014, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 14.01%. The money weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### *Discount Rate*

A discount rate of 8.0% was used to measure the total pension liability. This discount rate was based on the long term expected rate of return on pension plan investments of 8.0%. The projection of cash flows used to determine this discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

### *Sensitivity of the Net Pension Liability to Changes in the Discount Rate*

As required by GASB Statement No. 67, the following presents the plan's net pension liability, in thousands, calculated using a discount rate of 8.0% as well as what the plan's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher:

	<u>1% Decrease 7.0%</u>	<u>Current Discount 8.0%</u>	<u>1% Increase 9.0%</u>
Net Pension Liability/(Asset)	\$6,697,330	\$5,147,139	\$3,813,457

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### *Timing of the Valuation*

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. If the actuarial valuation is not calculated as of the plan's fiscal year end, the total pension liability is required to be rolled forward from the actuarial valuation date to the pension plan's fiscal year end.

The total pension liability as of September 30, 2014, is based on the results of an actuarial valuation date of September 30, 2013, and rolled-forward using generally accepted actuarial procedures.

### *Actuarial Valuations and Assumptions*

Actuarial valuations for both the pension and OPEB plans involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions (ARC) are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The Schedule of Funding Progress, presented as required supplementary information following the notes to the financial statements, present multi-year trend information about whether the actuarial value of plan assets for the OPEB plan is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

The Schedules of Contributions in RSI present trend information about the amounts contributed to the plans by employers in comparison to the ARC, an amount that is actuarially determined.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### Summary of Actuarial Assumptions

Valuation Date	9/30/2013
Actuarial Cost Method	Entry Age, Normal
Amortization Method - OPEB	Level Percent of Payroll, Closed
Remaining Amortization Period - OPEB <sup>(1)</sup>	23 years
Asset Valuation Method - OPEB	Market
Actuarial Assumptions:	
Wage Inflation Rate	3.5%
Investment Rate of Return - Pension	8.0%
Investment Rate of Return - OPEB	8.0%
Projected Salary Increases	3.5-12.5%, including wage inflation at 3.5%
Cost-of-Living Pension Adjustments	3% Annual Non-Compounded with Maximum Annual Increase of \$300 for those eligible
Health Care Cost Trend Rate	9.0% Year 1 graded to 3.5% Year 10
Mortality - Pension	RP-2000 Male and Female Combined Healthy Life Mortality Tables, adjusted for mortality improvements to 2015 projections scale BB. For retirees, 100% of the table rates were used. For active members, 50% of the table rates were used for males and females.
Mortality - OPEB	RP-2000 Combined Health Life Mortality Table, adjusted for mortality improvements to 2020 using projection scale AA (set forward 2 years for men, with 81% of the male rates at ages 80-103 and 107% of the female rates)
Other Assumptions OPEB only: <sup>(2)</sup>	
Opt Out Assumption	10% of eligible participants are assumed to opt out of the retiree health plan
Survivor coverage	80% of male retirees and 67% of female retirees electing dependent coverage are assumed to have coverage continuing after the retiree's death
Coverage Election at retirement	75% of male and 60% of female future retirees are assumed to elect coverage for 1 or more dependents
Notes	Assumption changes as a result of an experience study for the period 2007 through 2012 have been adopted by the Retirement System for use in the Pension annual valuations beginning with the September 30, 2014 valuation.

<sup>(1)</sup> Based on the provisions of GASB Statement Nos. 43 and 45 when the actuarial accrued liability for a OPEB plan is underfunded or overfunded, the difference should be amortized over a period not to exceed thirty years for the fiscal periods beginning on or after June 15, 2006.

<sup>(2)</sup> Applies to individuals hired before January 1, 2012

## NOTE 5 – INVESTMENTS

### *Investment Authority*

Under Public Act 380 of 1965, as amended, the authority for the purchase and the sale of investments resides with the State Treasurer. Investments are made subject to the Public Employees Retirement System Investment Act, Public Act 314 of 1965, as amended. The Public Employees Retirement System Investment Act authorizes, with certain restrictions, the investment of pension fund assets in stocks, corporate and government bonds and notes, mortgages, real estate, and certain short-term and alternative investments. Investments must be made for the exclusive purposes of providing benefits to active members, retired members and beneficiaries, and for defraying the expenses of investing the assets.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### Derivatives

The State Treasurer employs the use of derivatives in the investment of the pension and other employee benefit trust funds (the trust funds).

Derivatives are used in managing the trust fund portfolios, but uses do not include speculation or leverage of investments. Less than 12% of the total trust funds' portfolio has been invested from time to time in future contracts, swap agreements, structured notes, option and forward contracts. State investment statutes limit total derivative exposure to 15% of a fund's total asset value, and restrict uses to replication of returns and hedging of assets. Swap agreements represent the largest category of derivative investments subject to this limitation. Option and Future contracts traded daily on an exchange and settling in cash daily or having a limited and fully defined risk profile at an identified, fixed cost are not subject to the derivative exposure limitation.

The derivative fair values are reported on the Statement of Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position as of September 30, 2014 in their respective investment pools fair value. Derivative net increase and net decrease are reported on the Statement of Changes in Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position for fiscal year ended September 30, 2014 under "Investment income gain / (loss)", in "net increase (decrease) in fair value of investments". Bond interest, swap payments, and dividends are reported under "Investment Income", in "Interest, dividends, and other".

Derivative Investment Table as of September 30, 2014 (In Millions):

Investment and Investment Type	Percentage of Fair Value	Notional Value	Investments At Fair Value	Net	Investment Income	Fair Value Subject to Credit Risk
				Increase (Decrease) in Fair Value		
Structured Notes						
Absolute Return Investments	0.0%			\$8.6		
U.S. Treasury Bond Future Contracts						
Fixed Income Investments	0.0%	\$0.4		(0.1)		
Option Contracts						
Equity Investments	0.0%	(1.0)		20.1		
Swap Agreements						
International Equity Investments	2.1%	296.3	\$ 253.0	18.4	\$ (0.2)	\$ 10.1
Swap Agreements						
Equity Investments	0.1%	181.4	13.2	22.2	(0.6)	7.1

To diversify the trust funds' portfolio, the State Treasurer has entered into international swap agreements with investment grade counterparties, which are tied to stock market indices in forty-five foreign countries. Generally, one quarter or less of the notional amount tied to foreign stock market indices is usually hedged against foreign currency fluctuations. The swap agreements provide that the System will pay quarterly over the term of the swap agreements, interest indexed to the three month London Inter-Bank Offer Rate (LIBOR), adjusted for an interest rate spread, on the notional amount stated in the agreements. International equity swap agreement maturity dates range from October 2014 to December 2015. The U.S. Domestic LIBOR based floating rate notes and other investments are held to correspond with the notional amount of the international swap agreements. The value of the international synthetic equity structures is a combination of the value of the swap agreements and the value of the notes and other investments.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

The book value represents the cost of the notes and other investments. The current value represents the current value of the notes and other investments and the change in the value of the underlying indices from the inception of the swap agreements. The current value is used as a representation of the fair value based on the intention to hold all swap agreements until maturity. At the maturity of the swap agreements, the trust funds will either receive the increase in the value of the equity indices from the level at the inception of the agreements, or pay the decrease in the value of the indices. The combined swap structure generally realizes gains and losses on a rolling basis.

Domestic Equity Pool swap agreements provide that the System will pay interest quarterly or annually over the term of the swap agreements, interest indexed to the LIBOR, adjusted for an interest rate spread, on the notional amount stated in the agreements. Domestic equity swap agreement maturity dates range from October 2014 to July 2015. Domestic equity swaps value is a combination of the value of the swap agreements and the value of short-term investments. Book value represents the cost of short-term and equity investments. Current value represents the fair value of the short-term investments and the change in the value of the underlying indices from the inception of the swap agreements. Domestic equity swaps' increase (decrease) primarily reflects the net changes in the domestic indices and short-term investments.

Counterparty credit risk is the maximum loss amount that would be incurred if the counterparties to the derivative instrument failed to perform according to the terms of the contract, without respect to any collateral or other security, or netting arrangement.

To get enhanced passive exposure to the Dow Jones UBS Commodity Total Return Index, the State Treasurer purchased structured notes from investment grade counterparties for the Absolute Return Pool. These notes are fully collateralized and pay cash rates on the underlying collateral, as well as, providing the enhanced index return. Similar to a swap agreement with prices changing with the underlying index fluctuations, the notes differ due to their daily put option which allows the structure to end and settle before the note's maturity. As of September 30, 2014, all of the notes have been sold.

The State Treasurer traded U. S. Treasury bond future contracts to manage duration and yield curve exposure.

To provide downside protection and enhance current income, the State Treasurer traded covered equity options on single securities for the Absolute Return and Equity Investment pools. Put options are used to protect against large negative moves in single stocks, as well as, to express interest in a security that is trading well below its intrinsic value. Call options have been used to achieve current income on single equity securities that are trading near their intrinsic value. At year end, September 30, 2014, the Absolute Return Investment pool options had expired.

### ***Securities Lending***

State statutes allow the System to participate in securities lending transactions, and the System has, by way of an Agreement, authorized Credit Suisse, the agent bank, to lend the System's securities to broker-dealers and banks pursuant to a form of loan agreement.

During the fiscal year, the agent bank lent, at the direction of the State Treasurer, the System's securities and received cash (United States) as collateral. The types of securities lent were equity, and fixed income, which includes government and corporate bonds and notes. Borrowers were required to deliver collateral for each loan equal to (i) in case of loaned securities denominated in United States dollars or whose primary trading market was located in the United States or sovereign debt issued by foreign governments, 102% of the fair value of the loaned securities; and (ii) in the case of loaned securities not denominated in United States dollars or whose primary trading market was not located in the United States, 105% of the fair value of the loaned securities.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

The agent bank agreed to indemnify the System by purchasing replacement securities, or returning cash collateral in the event borrower failed to return the loaned security of pay distributions thereon, due to the borrower's insolvency.

Under Master Securities Lending Agreements between the System and each borrower, the System and the borrowers have the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested in assets held in a collateral account dedicated to the System. As of September 30, 2014, such assets had an average weighted maturity to next reset of 3.1 years and an average weighted maturity of 11.9 years. Because the loans are terminable at will, their duration did not generally match the duration of the investments made with cash collateral. On September 30, 2014, the System had no credit risk exposure to borrowers. The cash received for securities on loan for the System as of September 30, 2014 was \$819,364,700. The fair value of assets held in the dedicated collateral account at the custodian for the System as of September 30, 2014 was \$791,754,663. The carrying amount, which is the fair value, of securities on loan for the System as of September 30, 2014 was \$804,961,029.

### *Risk*

In accordance with GASB Statement No. 40, investments require certain disclosures regarding policies and practices and the risks associated with them. Credit risk, (including custodial credit risk and concentration of credit risk), interest rate risk, and foreign currency risk are discussed in the following paragraphs. Amounts represent the pro rata share of the underlying investments as required by GASB Statement No. 40. These investments are held in internal investment pools and reported as such in the financial statements.

Credit Risk- Credit risk is the risk that an issuer will not fulfill its obligations.

- Short-Term Fixed Income Investments- Prime commercial paper investments must be rated A-1 or P-1 at the time of purchase as rated by two national rating services as specified in Public Act 314. Borrowers must have at least \$400.0 million in commercial paper outstanding, and the State Treasurer may not invest in more than 10% of the borrower's outstanding debt. The investments are further limited to \$200.0 million in any borrower, unless the borrower has an A-1+ rating in which case the investment is not to exceed \$300.0 million.
- Long-Term Fixed Income Investments- Investment grade and noninvestment grade securities may be acquired in compliance with the parameters set forth in Public Act 314 of 1965, as amended, and the State Treasurer's Investment Policy Statement for the System. Public Act 314 defines investment grade as investments in the top four major grades, rated by two national rating services, as specified in Public Act 314. At September 30, 2014, the System was in compliance with the Public Act 314 and the Investment Policy Statement in all material aspects.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### Rated Debt Investments (In thousands) As of September 30, 2014

<u>Investment Type</u>	<u>Fair Value</u>	<u>S&amp;P</u>	<u>Fair Value</u>	<u>Moody's</u>
<b>Short Term</b>	\$ 681,075	A-1	\$ 681,075	P-1
<b>Government Securities</b>				
U.S. Agencies- Sponsored	-	AAA	55,073	Aaa
	55,073	AA	-	Aa
<b>Corporate Bonds &amp; Notes</b>				
	12,849	AAA	25,239	Aaa
	101,875	AA	82,108	Aa
	318,724	A	266,398	A
	333,640	BBB	389,876	Baa
	82,165	BB	91,298	Ba
	119,521	B	126,752	B
	21,456	CCC	21,164	Caa
	594	CC	9,507	Ca
	-	C	14	C
	6,700	D	-	D
	75,467	NR	60,634	NR
<b>International *</b>				
	34,518	AA	50,326	Aa
	87,133	A	60,170	A
	38,655	BBB	60,664	Baa
	20,526	NR	9,672	NR
<b>Securities Lending Collateral</b>				
<b>Short Term</b>	29,328	A-1	29,328	P-1
	78,760	AAA	111,472	Aaa
	71,822	AA	49,183	Aa
	10,073	A	-	A
	-	BBB	3,021	Baa
	3,021	BB	569,377	Ba
	29,353	CCC	26,330	Caa
	-	CC	3,023	Ca
	569,377	NR	-	NR
<b>Total</b>	<u><u>\$2,781,705</u></u>		<u><u>\$2,781,705</u></u>	

NR - not rated

\* International Investment types consist of domestic floating rate note used as part of a Swap strategy

**Custodial Credit Risk** -Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the State will not be able to recover the value of the investment or collateral securities that are in the possession of an outside party.

Investment securities are exposed to custodial credit risk if the securities are uninsured, not registered in the name of the government, and are held by either:

- The counterparty or
- The counterparty's trust department or agent but not in the government name.

The State Treasurer does not have a policy for custodial credit risk. However, the State's custodial bank's credit rating is A+ as of September 30, 2014. As of September 30, 2014, no securities were exposed to custodial credit risk.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

Concentration of Credit Risk - Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer.

Other than obligations issued, assumed or guaranteed by the United States, its agencies or United States government sponsored enterprises, the System is prohibited by Public Act 314 of 1965, as amended, from investing more than 5% of the outstanding obligations of any one issuer or investing more than 5% of a System's assets in the obligations of any one issuer. When calculating the amount of outstanding obligations, the System includes publicly issued and privately held debt.

At September 30, 2014, the System was in compliance with these limitations on credit risk.

Interest Rate Risk - Fixed Income Investments - Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of an investment.

The State Treasurer's policy states that cash equivalents are invested in short-term fixed income securities with an average weighted maturity of less than one year to provide liquidity and safety of principal from capital market and default risk. At September 30, 2014, the fair value of the System's prime commercial paper was \$681 million with the weighted average maturity of 25 days.

The State Treasurer does not have a policy regarding interest rate risk for long-term debt investments. However, the trust funds are invested with a long-term strategy. The goal is to balance higher returns while accepting minimum risk for the return. Analyzing the yield curve on individual securities as compared to U.S. Treasuries determines, in part, what is an acceptable risk for the return. Therefore, market conditions such as lower interest rates result in shorter duration and higher interest rates result in longer duration.

### Debt Securities

(In thousands)

As of September 30, 2014

	Fair Value	Effective Duration Years
<b>Government</b>		
U. S. Treasury	\$ 222,602	4.0
U. S. Agencies - Backed	104,098	4.8
U. S. Agencies - Sponsored	55,073	5.1
<b>Corporate</b>	1,072,991	4.9
<b>International*</b>		
Corporate	180,832	0.2
<b>Total</b>	<u>\$ 1,635,596</u>	

\* Debt Securities are exclusive of securities lending collateral. International contains Corporate Debt Securities as a part of their derivative strategies. The interest rates reset on a quarterly basis for these securities.

# **FINANCIAL SECTION**

## **Notes to Basic Financial Statements (continued)**

Foreign Currency Risk - Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit.

The System invests in various securities denominated in foreign currencies. Authorized global securities include equities, fixed income, mutual funds, real estate, and limited partnerships. These investments are limited to 30% of the total assets of the System with additional limits of not more than 5% of the outstanding global securities of any one issuer and no more than 5% of the System's assets in the global securities of any one issuer. In addition to these limits, the State Treasurer cannot acquire securities with companies that have active business operations in the state sponsors of terror as identified by the United States Secretary of State. At September 30, 2014, the total amount of foreign investment subject to foreign currency risk was \$2,030.3 million, which amounted to 17.0% of total investments (exclusive of securities lending collateral) of the System.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### Foreign Currency Risk (in Thousands) September 30, 2014

<u>Region</u>	<u>Country</u>	<u>Currency</u>	<u>Alt. Invest., Real Estate &amp; Infrastructure Fair Value in US \$</u>	<u>Equity Fair Value in US \$</u>	<u>Fixed Income Fair Value in US \$</u>	<u>International Derivatives* Fair Value in US \$</u>
<b><u>AMERICA</u></b>						
	ARGENTINA	PESO		\$ 31		
	BRAZIL	REAL		9	\$ 2,547	
	CANADA	DOLLAR		275		\$ 282
	MEXICO	PESO		1,984	20,975	
<b><u>CARIBBEAN</u></b>						
	BERMUDA	DOLLAR		2,980		
	CAYMAN ISLANDS	DOLLAR		1,835		
<b><u>EUROPE</u></b>						
	EUROPEAN UNION	EURO	\$ 202,356	19,722		(56)
	SWITZERLAND	FRANC		6,802		132
	SWEDEN	KRONA		2,346		
	DENMARK	KRONE		718		
	NORWAY	KRONE		6,562		48
	U.K.	STERLING	2,066	13,000		(1,715)
<b><u>PACIFIC</u></b>						
	AUSTRALIA	DOLLAR		628		(433)
	HONG KONG	DOLLAR		540		256
	JAPAN	YEN		68		(61)
	NEW ZEALAND	DOLLAR				(90)
	PHILIPPINES	PESO			12,975	
	SINGAPORE	DOLLAR		2,482		84
	SOUTH KOREA	WON		1,788		(340)
<b><u>MIDDLE EAST</u></b>						
	ISRAEL	SHEKEL		139		
<b><u>AFRICA</u></b>						
	SOUTH AFRICA	RAND				
<b><u>VARIOUS</u></b>						
	Total		262,943	1,468,492		(2,039)
			<u>\$ 467,366</u>	<u>\$ 1,530,400</u>	<u>\$ 36,497</u>	<u>\$ (3,931)</u>

\*International derivatives' market value exposure to foreign currency risk is the net amount of unrealized gains and unrealized losses. Maturity dates on these investments range from October 2014 through December 2015, with an average maturity of .5 years.

# FINANCIAL SECTION

## Notes to Basic Financial Statements (continued)

### NOTE 6 - ACCOUNTING CHANGES

GASB issued Statement No. 65, *Items Previously Reported as Assets and Liabilities*. This Statement establishes accounting and financial reporting standards that reclassify, as deferred outflows of resources or deferred inflows of resources, certain items that were previously reported as assets and liabilities and recognizes, as outflows of resources or inflows of resources, certain items that were previously reported as assets and liabilities. The provisions of this Statement are effective for financial statements for periods beginning after December 15, 2012. This Statement was implemented in fiscal year 2014.

The System implemented GASB Statement No. 67; *Financial Reporting for Pension Plans*, an amendment of GASB Statement No 25. The primary purpose of the valuation for financial reporting is to provide a consistent, standardized methodology that allows comparability of data and increased transparency of the pension liability across plans. To do so, GASB requires a different approach for determining the reported Net Pension Liability (NPL), as compared to the previously disclosed unfunded actuarial accrued liability (UAAL). The UAAL mirrored the unfunded actuarial obligation calculated by an external actuary for funding purposes and represented the excess of the actuarial accrued liability (AAL) over the actuarial value of assets (AVA). Under GASB Statement No. 67, the UAAL has been replaced by the NPL, which represents the excess of the total pension liability (TPL) over fiduciary net position. There are considerable differences between the two methods. Conceptually, the UAAL is the actuary's measure of the additional amount of assets needed to pay all benefits earned to date by current plan members, while the new NPL is a calculation of the actuarial present value of projected benefit payments to be provided through the pension plan to current active and inactive plan members that is attributed to those members' past periods of service in excess of the plan's fiduciary net position. The difference between the UAAL and NPL is reflected in the different methodologies used to calculate the TPL and AAL.

### NOTE 7 - NEW ACCOUNTING PRONOUNCEMENTS

GASB issued Statement No. 68, *Accounting and Financial Reporting for Pensions – An Amendment of GASB Statement No. 27, Accounting for Pensions by State and Local Governmental Employers*, as well as the requirements of Statement No. 50, *Pension Disclosures*, as they relate to pensions that are provided through pension plans administered as trusts or equivalent arrangements that meet certain criteria. The requirements of Statements 27 and 50 remain applicable for pensions that are not covered by the scope of this Statement. The objective of this Statement is to improve the decision-usefulness of information in employer and governmental nonemployer contributing entity financial reports and will enhance its value for assessing accountability and interperiod equity by requiring recognition of the entire net pension liability and a more comprehensive measure of pension expense. This Statement is effective for participating employers for their fiscal years beginning after June 15, 2014.

### NOTE 8 - COMMITMENTS AND CONTINGENCIES

Under the Administrative Procedures Act, members may appeal a decision made by the Board. Once the administrative procedure has been exhausted, the decision may be appealed in Michigan's court system. Various cases that have exhausted the administrative procedures have been appealed in the court system. These cases are in the normal course of business and the System does not anticipate any material loss as a result of the contingent liabilities.

#### *Pending Litigation*

In Michigan Coalition SEW, et al v State of Michigan, et al, Plaintiffs filed suit on February 13, 2012 alleging that 2011 PA 264 and, in particular, MCL 38.35a and 38.50a were unconstitutional because they were enacted without the approval of the Civil Commission, which has the authority of "fix rates of compensation" and regulate all conditions of employment under Const 1962, art 11, sec 5.

On September 25, 2012 the trial court granted summary disposition for Plaintiffs finding that PA 264 was a violation of art 11, sec 5. This was not a final order and Plaintiffs have subsequently submitted a second motion for partial summary disposition asserting that the overtime provisions found in section 1(e) of PA 264 also violate art 11, sec 5. The hearing on the partial motion for summary disposition was heard November 28, 2012 and the Court, consistent with its earlier decision, found section 1(e) also violated art 11 sec 5. Oral arguments before the Court of Appeals (COA) took place on June 12, 2013.

# **FINANCIAL SECTION**

## **Notes to Basic Financial Statements (continued)**

On August 13, 2013 the Court of Appeals (COA) affirmed the trial court ruling finding that portion of 2011 PA 264 are unconstitutional because they are incompatible with Const. 1963, art. 11, sec. 5. On September 24, 2013, the State of Michigan filed an application for leave to appeal to the Michigan Supreme Court. Oral Argument has been scheduled in the Michigan Supreme Court for January 13, 2015.

The COA decision is not effective until expiration of the time for filing the application for leave or if an application is filed until disposition of the case by the Supreme Court. In addition, pursuant to a stipulation between the parties the 4% deduction will continue while the State pursues its appellate remedies and in the event the appellate courts affirm the trial court decision, Plaintiffs will be made whole.

# FINANCIAL SECTION

## Required Supplementary Information

### Schedule of Funding Progress – Other Postemployment Benefit Plan

Expressing the actuarial value of assets as a percentage of the actuarial accrued liability provides one indication of the OPEB Plan's funding status. Analysis of this percentage over time indicates whether the Plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the Plan. Trends in unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded or overfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the Plan

Other Postemployment Benefits* (\$ in millions)						
Valuation Date Sept 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Overfunded) Accrued Liability (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2006		\$ 13,499	\$ 13,499	0.0 %	\$ 2,848	474.0 %
2007		12,966	12,966	0.0	2,949	439.6
2008		13,542	13,542	0.0	2,822	479.9
2009		12,618	12,618	0.0	2,972	424.6
2010		14,666	14,666	0.0	2,938	499.2
2011		14,251	14,251	0.0	3,040	468.8
2012 <sup>1</sup>	\$ 344	8,757	8,413	3.9	2,895	290.6
2013	663	8,199	7,536	8.1	2,881	261.6

<sup>1</sup> Revised investment rate of return from 4% to 8% due to prefunding

\* Includes members from both the defined benefit and defined contribution plans

# FINANCIAL SECTION

## Required Supplementary Information (continued)

### Schedule of Changes in Net Pension Liability (In Thousands)

	Fiscal Year 2014	
<b>Total Pension Liability</b>		
Service Cost	\$	84,040
Interest		1,206,258
Changes of benefit and actual experience		
Difference between expected and actual experience		
Changes of Assumption		406,962
Benefit payments, in including refunds of member contributions		(1,223,033)
<b>Net Change in Total Pension Liability</b>	\$	474,227
<b>Total Pension Liability - Beginning</b>		15,647,718
<b>Total Pension Liability - Ending (a)</b>	\$	16,121,945
<b>Plan Fiduciary Net Position</b>		
Contributions - Employer	\$	705,100
Contributions - Member		47,527
Net Investment Income		1,529,626
Benefit Payments, including refunds of member contributions		(1,223,033)
Administrative and Other Expenses		(6,931)
<b>Net Changes in Plan Fiduciary Net Pension</b>		1,052,290
<b>Plan Fiduciary Net Position - Beginning</b>		9,922,516
<b>Plan Fiduciary Net Position - Ending (b)</b>	\$	10,974,806
<b>Net Pension Liability (assets) - Ending (a) - (b)</b>		5,147,139
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>		68.07%
<b>Covered Employee Payroll</b>	\$	1,006,633
<b>Net Pension Liability as a Percentage of Covered Employee Payroll</b>		511.32%

### Schedule of Net Pension Liability (In thousands)

Fiscal Year Ended Sept. 30	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as % of Total Pension Liability	Covered Payroll	Net Pension Liability as % of Covered Payroll
2014	\$ 16,121,945	\$ 10,974,806	\$ 5,147,139	68.07%	\$ 1,006,633	511.32%

# FINANCIAL SECTION

## Required Supplementary Information (continued)

### Schedules of Contributions

<b>Pension Benefits (In Thousands)</b>					
<b>Fiscal Year Ended Sept. 30</b>	<b>Annual Determined Contribution (ARC)</b>	<b>Actual Employer Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll</b>	<b>Actual Contributions as a % of Covered Payroll</b>
2005	\$ 308,209	\$ 256,433	\$ 51,775	\$ 1,880,179	13.6 %
2006	366,651	270,705	95,945	1,847,653	14.7
2007	316,138 <sup>2</sup>	150,859 <sup>1</sup>	165,280	1,825,889	8.1
2008	308,020	355,732	(47,712)	1,763,672	20.2
2009	351,647	343,787	7,859	1,734,325	19.8
2010	418,428	369,953	48,475	1,621,709	22.8
2011	447,924	424,547	23,377	1,276,058	33.3
2012 <sup>3</sup>	512,616	419,927	92,689	1,155,591	36.3
2013	611,132	604,845	6,287	1,081,729	55.9
2014	624,467	705,100	(80,633)	1,006,633	70.0

### **Other Postemployment Benefits (In Thousands)**

<b>Fiscal Year Ended Sept. 30</b>	<b>Annual Required Contribution (ARC)</b>	<b>Actual Employer Contribution</b>	<b>Other Governmental Contribution</b>	<b>Percentage Contributed</b>
2007	\$ 898,717	\$ 359,375 <sup>1</sup>		40.0 %
2008	879,246	342,187	\$ 23,004	41.5
2009	922,791	362,419	21,987	41.7
2010	870,012	360,126	27,058	44.5
2011	1,020,144	388,196	64,773	44.4
2012	960,640	648,881	23,774	70.0
2013 <sup>3</sup>	678,650	688,349	41,514	107.5
2014	619,512	700,938	54,945	122.0

<sup>1</sup> In fiscal year 2007, \$41.3 million was transferred from the Health Advance Funding SubAccount to the Reserve for Employer Contributions in accordance with the provisions set forth in the State Employees' Retirement Act to comply with Executive Order 2007-3 and the subaccount was brought to \$0.

<sup>2</sup> Pursuant to Public Act 22 of 2007, the System's assets were revalued to their actual market value as of September 30, 2006. The five-year smoothing began again in fiscal year 2008.

<sup>3</sup> Revised actuarial assumptions.

### Schedule of Investment Returns

<b>Fiscal Year</b>	<b>Annual Return<sup>1</sup></b>
2014	14.01%

<sup>1</sup> Annual money-weighted rate of return,  
net of investment expenses

# FINANCIAL SECTION

## Note to Required Supplementary Information

### NOTE A - DESCRIPTION

Ten-year historical trend information designed to provide information about the System's progress made in accumulating sufficient assets to pay benefits when due is presented in the preceding schedules. Other ten-year historical trend information related to the System is presented in the Statistical and Actuarial Sections of the report. This information is presented to enable the reader to assess the progress made by the System in accumulating sufficient assets to pay pension and other postemployment benefits as they become due. Because this is the eighth year the System is reporting other postemployment benefits in accordance with GASB Statement No. 43, eight years of historical trend information is provided.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the pension and other postemployment benefit obligations as a factor.

The Schedule of Funding Progress and Schedules of Contributions are reported as historical trend information. The Schedule of Funding Progress is presented to measure the progress being made to accumulate sufficient assets to pay benefits when due. The Schedules of Contributions are presented to show the responsibility of the Employer in meeting the actuarial requirements to maintain the System on a sound financial basis.

The Schedule of Changes in Net Pension Liability, Schedule of Net Pension Liability, Schedule of Contributions, and Schedule of Investment returns are schedules that are required in implementing GASB Statement No. 67. The two schedules of the Net Pension Liability represents in actuarial terms, the accrued liability less the market value of assets. The Schedule of Contributions is a comparison of the employer's contributions to the actuarially determined contributions. The Schedule of Investment Returns represents a money-weighted rate of return that expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested.

The information presented in the Schedule of Contributions was used in the actuarial valuation for purposes of determining actuarially determined contribution rate. Additional information as of the latest actuarial valuation for the pension plan follows.

#### Valuation :

Actuarially determined contribution amounts are calculated as of September 30, each year, which is 1 day prior to the beginning of the fiscal year in which contributions are reported.

#### Methods and Assumptions Used to Determine Contribution For Fiscal Year 2014

Actuarial Cost Method	Entry Age, Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	23 years
Asset Valuation Method	5-Year Smoothed Market
Inflation	2.5%
Salary Increases	3.5% wage inflation
Investment Rate of Return	8.00% net of investment and administrative expenses
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	RP-2000 Combined Health Life Mortality Table, adjusted for mortality improvements to 2020 using projection scale AA (set forward 2 years for men, with 81% of the male rates used at ages 80-103 and 107% of the female rates)

# FINANCIAL SECTION

## Supporting Schedules

**Summary Schedule of  
Pension Plan Administrative and Other Expenses  
For Fiscal Year Ended September 30, 2014  
(in thousands)**

	<u>2014</u>
<b>Personnel Services:</b>	
Staff Salaries	\$ 1,872
Retirement and Social Security	723
Other Fringe Benefits	<u>250</u>
<b>Total</b>	<u>2,845</u>
<b>Professional Services:</b>	
Accounting	234
Actuarial	94
Attorney General	369
Audit	55
Consulting	15
Medical	<u>151</u>
<b>Total</b>	<u>919</u>
<b>Building and Equipment:</b>	
Building Rentals	144
Equipment Purchase, Maintenance, and Rentals	<u>6</u>
<b>Total</b>	<u>149</u>
<b>Miscellaneous:</b>	
Travel and Board Meetings	6
Office Supplies	6
Postage, Telephone, and Other	470
Printing	56
Technological Support	<u>2,480</u>
<b>Total</b>	<u>3,018</u>
<b>Total Administrative and Other Expenses</b>	<u>\$ 6,931</u>

**Summary Schedule of  
OPEB Plan Administrative and Other Expenses  
For Fiscal Year Ended September 30, 2014  
(in thousands)**

Staff Salaries	\$ 340
Health Fees	23,204
Dental Fees	1,740
Vision Fees	<u>252</u>
<b>Total Administrative and Other Expenses</b>	<u>\$ 25,536</u>

The OPEB plan administrative expenses of \$25,536,117 in fiscal year 2014 result from the transfer of all retiree related OPEB activity, including administrative fees paid to insurance carriers, from the State Sponsored Group Insurance Fund in accordance with GASB Statement No. 45.

# FINANCIAL SECTION

## Supporting Schedules (continued)

**Schedule of Investment Expenses**  
**For Fiscal Year Ended September 30, 2014**  
**(in thousands)**

	<u>2014</u>
Real Estate Operating Expenses	\$ 473
Securities Lending Expenses	13,442
Other Investment Expenses <sup>1</sup>	
ORS-Investment Expenses <sup>2</sup>	3,135
Custody Fees	210
Management Fees	30,518
Research Fees	<u>590</u>
<b>Total Investment Expenses</b>	<u><u>\$ 48,367</u></u>

<sup>1</sup> Refer to the Investment Section for fees paid to investment professionals

<sup>2</sup> Does not exclude Treasury Civil Service fees of \$40,740 for fiscal year 2014 recorded as a pass through in the Schedule of Investment Fees - State Treasurer.

**Schedule of Payments for Professional Services**  
**For Fiscal Year Ended September 30, 2014**  
**(in thousands)**

	<u>2014</u>
Accounting	\$ 234
Actuary	94
Attorney General	369
Independent Auditors	55
Consulting	15
Medical Advisors	<u>151</u>
<b>Total Payments</b>	<u><u>\$ 918</u></u>

# FINANCIAL SECTION

## Supporting Schedules (continued)

### Detail of Changes in Plan Fiduciary Net Position (Pension and Other Postemployment Benefits) For the Fiscal Year Ended September 30, 2014 (in thousands)

	Employee Contributions	Employer Contributions	Retired Benefit Payments	Undistributed Investment Income	OPEB	Total
<b>Additions:</b>						
Contributions						
Member contributions	\$ 47,527				\$ 40,441	\$ 87,969
Employer contributions		\$ 705,100			700,938	1,406,039
Other governmental contributions					54,945	54,945
Total contributions	<u>47,527</u>	<u>705,100</u>			<u>796,325</u>	<u>1,548,952</u>
Investment income (loss):						
Net increase (decrease)						
in fair value of investments				\$ 1,349,252	101,445	1,450,697
Interest, dividends, and other				206,964	15,613	222,576
Miscellaneous						
Real estate operating expenses				(441)	(32)	(473)
Other investment expenses				(32,199)	(2,253)	(34,452)
Securities lending activities:						
Securities lending income				18,326	1,659	19,985
Securities lending expenses				(12,319)	(1,123)	(13,442)
Net investment income (loss)				<u>1,529,583</u>	<u>115,308</u>	<u>1,644,891</u>
Miscellaneous income			\$ 43	-	60	102
<b>Total additions</b>	<u>47,527</u>	<u>705,100</u>	<u>43</u>	<u>1,529,583</u>	<u>911,692</u>	<u>3,193,946</u>
<b>Deductions:</b>						
Benefits paid to plan members and beneficiaries:						
Retirement benefits			1,222,881			1,222,881
Health benefits					446,022	446,022
Dental/vision benefits					41,621	41,621
Personal health care					3,908	3,908
Health reimbursement account					18	18
Refunds of contributions	77	76	(1)		23	175
Administrative and other expenses				6,931	25,536	32,467
<b>Total deductions</b>	<u>77</u>	<u>76</u>	<u>1,222,880</u>	<u>6,931</u>	<u>517,128</u>	<u>1,747,092</u>
<b>Net Increase (Decrease) before other changes</b>	<u>47,450</u>	<u>705,025</u>	<u>(1,222,837)</u>	<u>1,522,653</u>	<u>394,564</u>	<u>1,446,854</u>
<b>Other Changes in Net Position:</b>						
Interest allocation	4,763		1,455,829	(1,460,592)		
Transfers upon retirement	(22,588)		22,588			
<b>Total other changes in net position</b>	<u>(17,825)</u>		<u>1,478,417</u>	<u>(1,460,592)</u>		
<b>Net Increase (Decrease) in Net Position</b>	<u>29,625</u>	<u>705,025</u>	<u>255,579</u>	<u>62,061</u>	<u>394,564</u>	<u>1,446,854</u>
<b>Net Position Restricted for Pension Benefit and OPEB:</b>						
Beginning of Year	207,882	(1,206,883)	11,646,634	(725,117)	663,455	10,585,971
End of Year	<u>\$ 237,507</u>	<u>\$ (501,858)</u>	<u>\$ 11,902,213</u>	<u>\$ (663,056)</u>	<u>\$ 1,058,020</u>	<u>\$ 12,032,825</u>

# ***FINANCIAL SECTION***

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# INVESTMENT SECTION

Prepared by Michigan Department of Treasury, Bureau of Investments  
Jon M. Braeutigam, Chief Investment Officer

Report on Investment Activity  
Asset Allocation  
Investment Results  
List of Largest Stock Holdings  
List of Largest Bond Holdings  
Schedule of Investment Fees  
Schedule of Investment Commissions  
Investment Summary

# INVESTMENT SECTION

## Report on Investment Activity

### INTRODUCTION

The State Treasurer reports investment activity quarterly to the Investment Advisory Committee (Committee), which reviews the investments, goals, and objectives of the retirement funds and may submit recommendations regarding them to the State Treasurer. The Investment Advisory Committee may also, by a majority vote, direct the State Treasurer to dispose of any holdings that, in the Committee's judgment, are not suitable for the funds involved, and may, by unanimous vote, direct the State Treasurer to make specific investments.

The Investment Advisory Committee was created by Act 380 of the Public Acts of 1965. The three public members of the five-member committee are appointed by the Governor with the advice and consent of the Senate for three-year terms. The Director of the Department of Licensing and Regulatory Affairs and the Director of the Department of Technology, Management and Budget are ex-officio members. As of September 30, 2014, members of the Committee were as follows: Naif A. Khouri (public member), James B. Nicholson (public member), L. Erik Lundberg, CFA (public member), Mike Zimmer (ex-officio member), and David Behen (ex-officio member). The public members serve without pay, but may be paid actual and necessary travel and other expenses.

### INVESTMENT POLICY & GOALS

Investment policy states that the fiduciary will operate within standard investment practices of the prudent person and in accordance with Public Employee Retirement System Investment Act 314 of 1965. The fiduciary is authorized to invest in government obligations, corporate obligations, various short-term obligations, corporate (domestic and international) stocks, private equity interests, mutual funds, real estate interests, and other investments subject to specific parameters. Above all, trust fund assets are to be invested for the exclusive benefit of the members of the System, in a fiduciary capacity.

The System's Proxy Voting Policy sets forth directives on various issues including: Boards of Directors, corporate governance, social issues, corporate restructurings and defenses. All proxies are reviewed and voted in accordance with the System's policy.

The primary function of the System is to provide retirement, survivor and disability benefits along with health and other postemployment benefits to its members. The State Treasurer is the sole investment fiduciary and custodian of the System's investments pursuant to State law. The goals of the System are:

1. Maintain sufficient liquidity to pay benefits.
2. Meet or exceed the actuarial assumption over the long term.
3. Perform in the top half of the public plan universe over the long term.
4. Diversify assets to preserve capital and avoid large losses.
5. Exceed individual asset class benchmarks over the long term.

The strategy for achieving these goals is carried out by investing the assets of the System according to a five year asset allocation model. The System currently invests in seven different asset classes, which provides for a well-diversified portfolio.

# INVESTMENT SECTION

## Report on Investment Activity (continued)

### Asset Allocation (Excludes Collateral on Loaned Securities)

<u>Investment Category</u>	<u>As of 9/30/14 Actual %</u>	<u>Five Year Target %</u>
Domestic Equity Pools	29.9 %	31.0 %
International Equity Pools	15.2	16.0
Alternative Investment Pools	17.2	16.0
Real Estate and Infrastructure Pools	9.2	9.0
Fixed Income Pools	11.7	15.0
Absolute Return Pools	10.6	9.0
Short Term Investment Pools	6.2	4.0
<b>TOTAL</b>	<b><u>100.0</u> %</b>	<b><u>100.0</u> %</b>

### INVESTMENT AUTHORITY

Pursuant to State Law (Section 91 of Act No. 380 of the Public Acts of 1965, as amended, and Section 12c of Act No. 314 of 1965, as amended), the State Treasurer, State of Michigan, is the investment fiduciary for the following four State sponsored retirement systems: Michigan Public School Employees' Retirement System, Michigan State Employees' Retirement System, Michigan State Police Retirement System, and Michigan Judges' Retirement System.

Act No. 314 of the Public Acts of 1965, as amended, authorizes the investment of assets of public employee retirement systems or plans created and established by the State or any political subdivision.

### INVESTMENT RESULTS

#### *Total Portfolio Results*

For the fiscal year ended September 30, 2014, the total System's rate of return was 15.5% for the Pension Plan and 15.1% for the OPEB Plan as compiled by State Street Investment Analytics. Annualized rates of return for the Pension Plan for the three, five, and ten year periods ending September 30, 2014 were: 13.8%, 11.2%, and 7.6% respectively.

In a repeat of the prior year, in fiscal year 2014 the U.S. stock market made another new all-time high, the U.S. economy continued to add jobs, interest rates remained historically low, and inflation was under control.

At its December 2013 meeting, the Federal Reserve Board decided to begin to reduce, or taper, the size of the Quantitative Easing (QE) policy from \$85 billion per month to \$75 billion. By September 2014, the Fed's monthly asset purchase was down to \$15 billion per month, and it is widely expected to end the program by October 2014.

In various statements, the Fed has tied stimulus programs such as QE to the rate of inflation and the health of the U.S. jobs market. Over the past 12 months, the rate of inflation has averaged just less than 1.6%. In May 2014, after more than 6 years, the jobs market finally recovered the number of jobs lost during the recession. By September of 2014, the unemployment rate fell below 6% for the first time since 2008, hitting 5.9%

# INVESTMENT SECTION

## Report on Investment Activity (continued)

The past year did not pass without its share of notable events each having the potential strong enough to seriously destabilize global economies. First, a regional conflict between Russia and Ukraine was ignited in February 2014 as Russia began its quest to control and eventually annex Crimea. In response, a number of countries, including the United States, issued economic sanctions against Russia. As a consequence to the sanctions, Russian gas exports to Europe and Ukraine may become disrupted. Thirty percent of Europe's gas is imported from Russia, half of which flows through Ukrainian pipelines.

A second threat is due to the growing power of a terrorist organization called Islamic State of Iraq and the Levant, also known as ISIS. ISIS claims religious authority over all Muslims worldwide, and it wants to bring Muslim-inhabited regions of the world under its political control, beginning with the region of the Levant which approximately covers Syria, Jordan, Israel/Palestine, Lebanon, Cyprus, and part of southern Turkey.

A third threat is the spread of a deadly virus called Ebola from West Africa. The virus was first identified in the 1970's, but until recently it was contained to mostly remote locations in Africa. However, the number of infections due to the 2014 outbreak has surpassed all cases prior to this year in total. The virus has recently spread to Europe and the United States. With a fatality rate of approximately 70%, should the virus continue to spread to additional, more populous countries, Ebola has the potential to become a devastating global pandemic.

### *Domestic Equity Pools*

The objective for investments made in domestic equities is to meet or exceed the total return of the S&P 1500 Super Composite for one, three, and five-year periods and a market cycle.

For active management strategies, the objective is to earn returns that exceed the most relevant S&P Index (or the most relevant Russell Index), adjusting for market capitalization and style, for one, three, and five-year periods and a market cycle. Rank above median in a universe of managers possessing a similar market cap and style characteristics.

For index, or passive return strategies, the objective is to return within 20 basis points of the S&P 500 Index, 50 basis points for the S&P 400 mid-cap, and 60 basis points for the S&P 600 small-cap over one, three, and five-year periods and a market cycle.

The pools are invested primarily in equities or equity-related securities of U.S. companies through internal and externally managed strategies. The goal is to build a portfolio of strategies that will provide excess returns relative to the S&P 1500 while providing minimal tracking error to the index. At times a portion of the pools may be invested in exchange traded funds (ETFs) and fixed-income short-term securities with maturities of less than one year.

The pools invest in equities and equity related securities that are listed on U.S. national securities exchanges, including American Depository Receipts (ADRs). It may also invest in stocks that are traded over-the-counter. The pools diversify their investments by allocating their equity strategies with consideration of the capitalization weightings of the S&P 1500 Index.

The following summarizes the weightings of the pools as of September 30, 2014:

Active	53.4 %
Passive	46.6
Total	<u>100 %</u>

Large Cap	67.5 %
Multi Cap	20.2
Mid Cap	10.5
Small Cap	1.8
Total	<u>100 %</u>

# INVESTMENT SECTION

## Report on Investment Activity (continued)

The System's Domestic Equity pools total rate of return was 20.3% for the Pension Plan and 20.6% for the OPEB Plan for fiscal year 2014. This compared with 18.6% for the S&P 1500 Index.

At the close of fiscal year 2014, the Domestic Equity pools represented 29.9% of total investments. The following summarizes the System's 19.8% ownership share of the Domestic Equity pools at September 30, 2014:

### Domestic Equity Pools (in thousands)

Short Term Pooled Investments	\$	27,049
Equities		3,534,894
Market Value of Equity Contracts		7,011
Other Investments		(6)
Long Term Obligations		971
Settlement Principal Payable		(9,155)
Settlement Proceeds Receivable		9,496
Accrued Dividends		3,411
<b>Total</b>	<b>\$</b>	<b><u>3,573,671</u></b>

### International Equity Pools

The objective for investments made in International Equity pools is to meet or exceed the total return of the MSCI ACWI Ex-US Net for one, three, and five-year periods and a market cycle.

For active management strategies, the objective is to earn returns that exceed the most relevant S&P Index (or the most relevant Russell Index), adjusting for market capitalization, style and geography for one, three, and five-year periods and a market cycle. Rank above median in a universe of managers possessing a similar market capitalization, style and geography characteristics.

For index, or passive return strategies, the objective is to return within 250 basis points of the S&P/Citigroup BMI-EPAC Index with 25% of the currency hedged for one, three, and five-year periods and a market cycle. Return within 400 basis points of the MSCI Emerging Markets Index, for one, three, and five-year periods and a market cycle.

Active exposure is invested primarily in equities or equity-related securities of non-U.S. companies through externally managed strategies.

Passive exposure to international equity returns is achieved primarily by investing in a combination of fixed income LIBOR notes, short-term fixed income investments, and equity swap agreements on foreign stock indices in developed markets. Interest on the dedicated notes and short-term fixed income investments is exchanged for international stock returns, and the total notional amount of the swap agreements is invested in the approximate proportions of the S&P Broad Market Index (BMI) Europe and Pacific Composite (EPAC) country weightings in related indices. Use of swap agreements for a core position began in 1993, an American Depositary Receipts (ADR) and index-related security portfolio was added in June of 1999 to increase portfolio management flexibility, and a multiple country fund portfolio with smaller capitalization stocks was added in September of 2002 to improve exposure to the smallest companies in the BMI index. Use of futures as an investment to hedge cash flows and balances began in December of 2008, and this use is expected to continue in the future. The combined Swap agreements, notes and short-term investments together continue to perform like a stock index fund that realizes all gains and losses on a rolling three year basis.

# INVESTMENT SECTION

## Report on Investment Activity (continued)

The pools diversify their investments by allocating its equity strategies with consideration of the economic development status weightings of the S&P/Citigroup BMI -World ex-US Index.

The following summarizes the weightings of the pools as of September 30, 2014:

Active	46.9 %
Passive	<u>53.1</u>
<b>Total</b>	<b><u>100.0 %</u></b>

Developed	80.0 %
Emerging	<u>20.0</u>
<b>Total</b>	<b><u>100.0 %</u></b>

The System's International Equity pools total rate of return was 6.0% for fiscal year 2014. This compared with 5.1% for the MSCI ACWI Ex US Net.

At the close of fiscal year 2014, the International Equity pools represented 15.2% of total investments. The following summarizes the System's 20.0% ownership share of the International Equity Pools at September 30, 2014:

### International Equity Pools (in thousands)

Short Term Pooled Investments	\$ 70,103
Equities	1,564,244
Fixed Income Securities	180,832
Market Value of Equity Contracts	4,261
Accrued Dividends and Interest	<u>425</u>
<b>Total</b>	<b><u>\$ 1,819,865</u></b>

### Alternative Investment Pools

The Alternative Investment pools objective is to meet or exceed the benchmark for all private equity investments over long time periods. The benchmark is a blend of the S&P 500 Index plus 300 basis points and the 10 year yield plus 300 basis points using ending weights of equity and fixed income holdings within the portfolio.

Alternative Investments are investments in the private equity market, primarily through limited partnerships. The following summarizes the weightings of the pools as of September 30, 2014:

Buyout Funds	57.4 %
Special Situation Funds	22.2
Venture Capital Funds	11.3
Fund of Funds	4.6
Liquidation Portfolio	2.8
Mezzanine Funds	<u>1.7</u>
<b>Total</b>	<b><u>100.0 %</u></b>

# INVESTMENT SECTION

## Report on Investment Activity (continued)

The Alternative Investment pools had a return of 25.4% for the fiscal year ended September 30, 2014, versus the benchmark of 27.8%. At the close of fiscal year 2014, the Alternative Investment pools represented 17.2% of total investments. The following summarizes the System's 18.5% ownership share of the Alternative Investment pools at September 30, 2014:

### Alternative Investment Pools (in thousands)

Short Term Pooled Investments	\$ 23,565
Equities	2,024,965
<b>Total</b>	<b><u><u>\$ 2,048,530</u></u></b>

### Real Estate and Infrastructure Pools

The objective of the Real Estate and Infrastructure pools is to provide diversification and favorable risk adjusted returns primarily through income and appreciation of investments. Investments are typically held through investment entities, such as limited partnerships or limited liability companies, established for the specific purpose of owning, leasing, managing, financing, or developing real estate and infrastructure related investments.

The Real Estate and Infrastructure pools diversify its holdings by:

- Geography - The pools are invested globally and are diversified geographically so that it is not concentrated in a limited number of markets or geographic areas.
- Size and Value - The pools diversify its holdings by size so that it is not concentrated in a limited number of large investments.
- Investment Type – The pools are diversified by investment type as summarized below.

Multi-family apartments	29.3 %
Hotel	16.7
Commercial office buildings	15.5
Infrastructure	9.4
Industrial warehouse buildings	7.5
Retail shopping centers	6.8
For Rent Homes	6.7
For Sale Homes	4.4
Land	2.6
Short Term Investments	1.1
<b>Total</b>	<b><u><u>100.0 %</u></u></b>

The Real Estate and Infrastructure pools generated a return of 19.8% for fiscal year 2014. The two benchmark returns from the National Council of Real Estate Investment Fiduciaries: the National Property Blended Index (less 130 basis points) was 9.8% and the Open-End Diversified Core Equity Index was 11.4%.

At the close of fiscal year 2014, the Real Estate and Infrastructure pools represented 9.2% of total investments. The following summarizes the System's 19.8% ownership share of the Real Estate and Infrastructure pools at September 30, 2014:

# INVESTMENT SECTION

## Report on Investment Activity (continued)

### Real Estate and Infrastructure Pools (in thousands)

Short Term Pooled Investments	\$	12,405
Real Estate Equities		985,872
Infrastructure Equities		99,901
<b>Total</b>	<b>\$</b>	<b><u>1,098,178</u></b>

### Fixed Income Pools

The objective for investments made in the Fixed Income pools is to meet or exceed the Barclays Aggregate Bond Index over one, three, and five-year periods and market cycles. Rank above median in a nationally recognized universe of managers possessing a similar style.

For Fixed Income sub-strategies, the objective return is to meet or exceed the most relevant Barclays benchmark index.

The pools are invested primarily in fixed income securities of U.S. companies through internal and externally managed strategies. The goal is to build a portfolio of strategies that will provide excess returns relative to the blended benchmark while providing minimal tracking error to the index. At times a portion of the pools may be invested in exchange traded funds (ETFs) and fixed-income short-term securities with maturities of less than one year.

The pools invest in fixed income and related securities in a diversified portfolio of investment grade corporate issues, treasuries, agencies, government sponsored enterprises and government guaranteed mortgages. The pools diversify its investments by allocating its strategies with consideration of credit risk.

The System's Fixed Income pools total rate of return was 4.6% for fiscal year 2014. This compared with 4.0% for the Barclays Aggregate Bond Index.

At the close of fiscal year 2014, the Fixed Income pools represented 11.7% of total investments. The following summarizes the System's 20.5% ownership share of the Fixed Income pools at September 30, 2014:

### Fixed Income Pools (in thousands)

Short Term Pooled Investments	\$	20,238
Fixed Income Securities		1,360,769
Settlement Proceeds Receivable		1,034
Accrued interest		8,004
<b>Total</b>	<b>\$</b>	<b><u>1,390,045</u></b>

# INVESTMENT SECTION

## Report on Investment Activity (continued)

### *Absolute Return Pools*

The Absolute Return pools consist of the Absolute Return Strategies Pool and the Real Return and Opportunistic Investment Pool.

The primary investment objective of the Absolute Return Strategies Pool is to generate a rate of return that meets or exceeds T-bills by 400 basis points net of fees over the one, three, and five-year periods and a market cycle. Also, exceed the appropriate HFN Fund of Funds median net of fees over one, three, and five-year periods and a market cycle.

The Absolute Return Strategies pool rate of return for the fiscal year was 9.2% versus the benchmark's 6.5%.

The primary investment objective of the Real Return and Opportunistic Pool is to generate a rate of return that meets or exceeds the increase in the CPI by at least five percent (5%) annually net of fees over one, three, and five-year periods and a market cycle. If a peer universe is available, rank above median in a nationally recognized universe of managers possessing a similar style.

For sub-strategies targeting a commodities index, the objective is to generate a rate of return that meets or exceeds the Dow Jones-AIG Total Return Commodities Index over one, three, and five year periods and a market cycle. Rank above median in a nationally recognized universe of managers possessing a similar style.

The Real Return and Opportunistic Investments pool rate of return for the fiscal year was 24.5% versus the benchmark's 7.4%.

At the close of fiscal year 2014, the Absolute Return pools represented 10.6% of total investments. The following summarizes the System's 19.8% ownership share of the Absolute Return pool at September 30, 2014:

<b>Absolute Return Pools</b>	
<b>(in thousands)</b>	
Short Term Pooled investments	\$ 10,559
Equities	1,221,551
Long Term Obligations	26,882
Accrued Interest and Dividends	744
<b>Total</b>	<b><u>\$ 1,259,736</u></b>

### *Short Term Investment Pools*

The objective of the Short Term Investment pools is to closely match the return performance of its benchmark, the 30 day Treasury bill. The Short Term Investment pools return for the fiscal year was 0.2% versus the benchmark's 0.0%.

Potential areas of investment are:

- Obligations of the United States or its agencies.
- Banker's acceptances, commercial accounts, certificates of deposit or depository receipts.
- Repurchase agreements for the purchase of securities issued by the US government or its agencies.
- Commercial paper rated at the time of purchase within the two highest classifications established by not less than two national rating services as determined by the State Treasurer.
- Short duration investment grade corporate issues.

# INVESTMENT SECTION

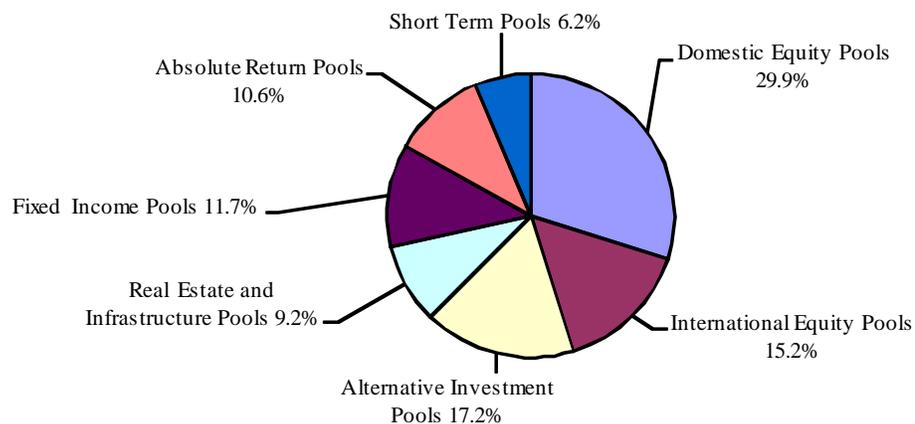
## Report on Investment Activity (continued)

At the close of fiscal year 2014, the Short Term Investment pools represented 6.2% of total investments. The following summarizes the System's 33.6% ownership share of the Short Term Investment pools at September 30, 2014:

### Short Term Investment Pools (in thousands)

Short Term Pooled Investments	\$ 502,719
Fixed Income Securities	243,077
Accrued interest	123
Total	<u>\$ 745,919</u>

### Asset Allocation – Security Type Only



# INVESTMENT SECTION

## Report on Investment Activity (continued)

### Pension Plan Investment Results for the Period Ending September 30, 2014

Investment Category	Current Year	Annualized Rate of Return <sup>1</sup>		
		3 Years	5 Years	10 Years
Total Portfolio	15.5 %	13.8 %	11.2 %	7.6 %
Domestic Equity Pools	20.3	23.8	15.7	8.4
S&P 1500 Index	18.6	23.0	15.8	8.3
International Equity Pools	6.0	13.1	6.9	6.2
International Blended Benchmark <sup>2</sup>	5.1	12.3	5.8	5.8
Alternative Investment Pools	25.4	14.4	18.4	14.4
Alternative Blended Benchmark <sup>3</sup>	27.8	19.7	20.9	12.3
Real Estate and Infrastructure Pools	19.8	12.0	6.6	6.3
NCREIF Property Blended Index <sup>4</sup>	9.8	9.7	9.6	7.2
Fixed Income Pools	4.6	3.6	5.1	5.4
Barclays Aggregate Bond	4.0	2.4	4.1	4.6
Absolute Return Pools				
Total Absolute Return	9.2	8.1	6.9	
HFRI Fund of Fund Cons 1 month lag	6.5	4.2	3.7	
Total Real Return and Opportunistic	24.5	12.2		
Real Return and Opportunistic Benchmark <sup>5</sup>	7.4	7.3		
Short Term Investment Pools	0.2	0.3	0.4	1.3
30 Day Treasury Bill	0.0	0.0	0.1	1.4

<sup>1</sup> Calculations used a time-weighted rate of return based on the market rate of return in accordance with industry standards.

Excludes income and investment gains and losses from securities lending.

<sup>2</sup> As of 7/1/14 index is MSCI ACWI Ex-US Net. History 10/1/10 to 6/30/14 is MSCI ACWI Ex US Gross.

History 1/1/10 to 9/30/10 is S&P Developed BMI-EPAC Net 75/25.

History prior to 1/1/10 is S&P Developed BMI-EPAC Net 50/50.

<sup>3</sup> As of 1/1/07, index is blend of S&P 500 plus 300 bps and 10 year yield plus 300 bps based on ending weights.

History prior to 1/1/07 is S&P500 plus 300 bps.

<sup>4</sup> As of 10/1/05, index is NCREIF less 130 bp. History prior to 10/1/05 reflects NCREIF less 75 bp.

<sup>5</sup> Benchmark is 50% (CPI + 5%) and 50% (actuarial rate 8%).

# INVESTMENT SECTION

## Report on Investment Activity (continued)

### OPEB Investment Results for the Period Ending September 30, 2014

<u>Investment Category</u>	<u>Current Year</u>	<u>Annualized Rate of Return<sup>1</sup></u> <u>3 Years</u>
Total Portfolio	15.1 %	13.0 %
Domestic Equity Pools	20.6	24.0
S&P 1500 Index	18.6	23.0
International Equity Pools	6.0	13.0
International Blended Benchmark <sup>2</sup>	5.1	12.3
Alternative Investment Pools	25.4	14.4
Alternative Blended Benchmark <sup>3</sup>	27.8	19.7
Real Estate and Infrastructure Pools	19.8	12.1
NCREIF Property Blended Index <sup>4</sup>	9.8	9.7
Fixed Income Pools	4.6	3.6
Barclays Aggregate Bond	4.0	2.4
Absolute Return Pools		
Total Absolute Return	9.2	8.1
HFRI Fund of Fund Cons 1 month lag	6.5	4.2
Total Real Return and Opportunistic	24.5	12.2
Real Return and Opportunistic Benchmark <sup>5</sup>	7.4	7.3
Short Term Investment Pools	0.2	0.3
30 Day Treasury Bill	0.0	0.0

1 Calculations used a time-weighted rate of return based on the market rate of return in accordance with industry standards.

Excludes income and investment gains and losses from securities lending.

2 As of 7/1/14 index is MSCI ACWI Ex-US Net. History 10/1/10 to 6/30/14 is MSCI ACWI Ex US Gross.

History 1/1/10 to 9/30/10 is S&P Developed BMI-EPAC Net 75/25.

History prior to 1/1/10 is S&P Developed BMI-EPAC Net 50/50.

3 As of 1/1/07, index is blend of S&P 500 plus 300 bps and 10 year yield plus 300 bps based on ending weights.

History prior to 1/1/07 is S&P500 plus 300 bps.

4 As of 10/1/05, index is NCREIF less 130 bp. History prior to 10/1/05 reflects NCREIF less 75 bp.

5 Benchmark is 50% (CPI + 5%) and 50% (actuarial rate 8%).

# INVESTMENT SECTION

## Largest Assets Held

### Largest Stock Holdings (By Market Value)<sup>1</sup> September 30, 2014

Rank	Shares	Stocks	Market Value
1	1,207,241	Apple Inc.	\$ 121,629,499
2	1,258,251	Wal-Mart Stores Inc.	96,218,420
3	484,076	Goldman Sachs Group Inc.	88,861,774
4	1,669,020	Wells Fargo & Co	86,572,076
5	1,966,682	US Bancorp	82,266,308
6	673,882	Johnson & Johnson	71,829,100
7	3,418,762	Bank of America Corp	58,289,889
8	1,105,297	Microsoft Corp	51,241,566
9	262,287	Intl Business Machines Corp	49,790,009
10	447,746	Gilead Sciences Inc.	47,662,563

### Largest Bond Holdings (By Market Value)<sup>2</sup> September 30, 2014

Rank	Par Amount	Description	Market Value
1	\$ 38,219,586	US Treasury N/B 1.625% Due 07-31-2019	\$ 37,980,714
2	29,399,682	US Treasury N/B 2.750% Due 11-15-2023	30,134,674
3	19,599,788	US Treasury N/B 2.750% Due 02-15-2024	20,060,696
4	19,697,723	Barclays Bank PLC .9416% FRN Due 01-22-2019	19,681,177
5	19,599,788	US Treasury N/B 1.625% Due 06-30-2019	19,495,674
6	12,409,565	Suntrust Banks Inc. .9341 FRN Due 04-29-2019	12,336,572
7	11,108,180	General Electric Cap Corp .4036% FRN Due 02-15-2017	11,105,536
8	9,799,894	Target Corp 5.375% Due 05-01-2017	10,829,814
9	9,848,861	Suntrust Banks Inc. 1.1361 FRN Due 07-30-2018	9,949,694
10	9,848,861	Bank of America Corp. 1.1046 FRN Due 04-01-2019	9,900,755

1 A complete list of holdings is available from the Michigan Department of Treasury.

The System's assets are commingled in various pooled accounts. Amounts, par value and number of shares represents the System's pro-rata share based on its ownership of the investment pools.

2 Largest Bond Holdings are exclusive of securities lending collateral.

# INVESTMENT SECTION

## Schedule of Investment Fees

The State Treasurer is the investment fiduciary and custodian of the System's funds pursuant to State law. Outside advisors are utilized to augment the State Treasurer's internal staff. 59.39% of the total investment portfolio is managed by fully discretionary outside advisors. The Michigan Department of Treasury's cost of operations applicable to the System for the fiscal year amounted to \$3,202 thousand or six and six tenths basis points (.066) of the fair value of the Assets under Management of the State Treasurer.

Act 380 of the Public Acts of 1965 created an Investment Advisory Committee (Committee) comprised of the directors of the Department of Licensing and Regulatory Affairs and the Department of Technology, Management & Budget, or their duly authorized representatives, and three public members appointed by the Governor with the advice and consent of the Senate. The public members serve without pay, but may be paid actual and necessary travel and other expenses. The Committee meets quarterly to review investments, goals and objectives and may submit recommendations to the State Treasurer. The Committee may also, by a majority vote, direct the State Treasurer to dispose of any holding which, in the Committee's judgment, is not suitable for the fund involved, and may by unanimous vote direct the State Treasurer to make specific investments.

### Schedule of Investment Fees

#### Investment Managers' Fees:

	Assets under Management <u>(in thousands)</u>	Fees <u>(in thousands)</u>	Basis <u>Points *</u>
State Treasurer	\$ 4,851,581	\$ 3,202	6.6
Outside Advisors for			
Fixed Income	462,934	980	21.2
Absolute Return	1,206,005	3,820	31.7
International Equity	1,475,948	2,551	17.3
Domestic Equity	792,768	3,103	39.1
Alternative	2,048,530	14,236	69.5
Real Estate/Infrastructure	<u>1,098,178</u>	<u>5,827</u>	53.1
Total	<u>\$ 11,935,943</u>	<u>\$ 33,719</u>	

#### Other Investment Services Fees:

Assets in Custody	11,801,653	800
Securities on Loan	804,961	1,919

\* Alternative Investment partnership agreements that define the management fees, the asset management fees range from 75 basis points on remaining assets under management to 250 basis points of the committed capital. For Real Estate/Infrastructure, the asset management fees range from 40 to 200 basis points. For Absolute Return, the asset management fees range from 0 to 200 basis points. These fees, in most cases, are netted against income.

# INVESTMENT SECTION

## Schedule of Investment Commissions

	Fiscal Year Ended September 30, 2014						
	Actual	Actual	Average	Estimated	Estimated	Estimated	Estimated
	Commissions Paid <sup>(1)</sup>	Number of Shares Traded <sup>(1)</sup>	Commission Per Share	Trade Costs Per Share	Research Costs Per Share	Trade Costs	Research Costs
<b>Investment Brokerage Firms :</b>							
Banc Of America Securities LLC	\$ 12,012	367,737	\$ 0.03	\$ 0.01	\$ 0.02	\$ 3,677	\$ 7,355
Barclays Capital Inc.	91,948	1,452,219	0.06	0.01	0.05	14,522	72,611
BNY Convergenx Execution Solutions LLC	11,678	613,762	0.02	0.01	0.01	6,138	6,138
BTIG LLC	292,647	31,028,021	0.01	0.01		310,280	
Cantor Fitzgerald & Co.	48	2,388	0.02	0.01	0.01	24	23
Capital Institutional Services Inc.	2,373	78,291	0.03	0.01	0.02	783	1,565
Citigroup Global Markets Inc.	11,275	563,713	0.02	0.01	0.01	5,638	5,637
Cowen & Company LLC	62,295	2,200,387	0.03	0.01	0.02	22,003	44,008
Credit Suisse Securities LLC	155,515	5,572,675	0.03	0.01	0.02	55,726	111,454
Deutsche Bank - Alex Brown	552	16,794	0.03	0.01	0.02	168	336
Deutsche Bank Securities Inc.	1,415	76,363	0.02	0.01	0.01	764	764
Drexel Hamilton	39,294	1,518,746	0.03	0.01	0.02	15,188	30,375
Goldman, Sachs & Co.	12,258	433,051	0.03	0.01	0.02	4,331	8,661
ISICapital LLC	2,509	83,616	0.03	0.01	0.02	836	1,672
J. P. Morgan Securities Inc.	165,344	7,083,237	0.02	0.01	0.01	70,832	70,832
Merrill Lynch,Pierce,Fenner & Smith Inc.	18	1,875	0.01	0.01		18	
Mischler Financial Group Inc.	26,509	921,512	0.03	0.01	0.02	9,215	18,430
Morgan Stanley & Co. Inc.	166,099	5,961,802	0.03	0.01	0.02	59,618	119,236
OTA LLC	28,194	939,822	0.03	0.01	0.02	9,398	18,796
Pershing LLC	4	457	0.01	0.01		5	
Piper Jaffray & Co.	72,944	7,294,339	0.01	0.01		72,944	
RBC Capital Markets	440	10,991	0.04	0.01	0.03	110	330
Sanford C. Bernstein & Co. LLC	27,556	918,529	0.03	0.01	0.02	9,185	18,371
Stifel, Nicolaus & Co. Inc.	231	5,791	0.04	0.01	0.03	58	174
<b>Total</b>	<b>\$ 1,183,158</b>	<b>67,146,118</b>	<b>\$ 0.02</b> <sup>(2)</sup>	<b>\$ 0.01</b>	<b>\$ 0.02</b>	<b>\$ 671,461</b>	<b>\$ 536,768</b>

<sup>1</sup> Commissions are included in purchase and sale prices of investments. The commissions and shares represent the System's pro-rata share based on ownership of commission and share transactions in the investment pools.

<sup>2</sup> The average commission per share for all brokerage firms.

# INVESTMENT SECTION

## Investment Summary

Fiscal Year Ended September 30, 2014

	<u>Market Value</u> <sup>1</sup>	<u>Percent of Total Market Value</u>	<u>Investment &amp; Interest Income</u> <sup>2</sup>	<u>Percent of Total Investment &amp; Interest Income</u>
Fixed Income Pools	\$ 1,390,045,009	11.7%	\$ 59,807,693	3.9%
Domestic Equity Pools	3,573,670,562	29.9%	593,850,453	39.1%
Real Estate and Infrastructure Pools	1,098,178,309	9.2%	201,293,277	13.3%
Alternative Investment Pools	2,048,529,867	17.2%	356,587,790	23.5%
International Equities Pools	1,819,865,243	15.2%	96,070,755	6.3%
Absolute Return Pools	1,259,736,490	10.6%	210,105,962	13.8%
Short Term Investment Pools <sup>3</sup>	745,918,585	6.2%	676,849	0.1%
	<u>\$ 11,935,944,065</u>	<u>100.0%</u>	<u>\$ 1,518,392,779</u>	<u>100.0%</u>

<sup>1</sup> Market value excludes \$791,754,663 in security lending collateral for fiscal year 2014.

<sup>2</sup> Total Investment & Interest Income excludes net security lending income of \$6,543,446 and unrealized gain of \$154,880,180 for securities lending collateral.

<sup>3</sup> Short term investment pools market value includes \$134,290,841 of equity in common cash.

# ACTUARIAL SECTION

Actuary's Certification  
Summary of Actuarial Assumptions and Methods  
Schedules of Active Member Valuation Data  
Schedules of Changes in the Retirement Rolls  
Prioritized Solvency Test  
Analysis of System Experience  
Summary of Plan Provisions

# ACTUARIAL SECTION

## Actuary's Certification

**GRS**

Gabriel Roeder Smith & Company  
Consultants & Actuaries

One Towne Square  
Suite 800  
Southfield, MI 48076-3723

248.799.9000 phone  
248.799.9020 fax  
www.gabrielroeder.com

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October 27, 2014

Mr. David Behen; Director  
Department of Technology, Management and Budget  
and  
The Retirement Board  
Michigan State Employees Retirement System  
P.O. Box 30171  
Lansing, Michigan 48909

Ladies and Gentlemen:

The basic financial objective of the Michigan State Employees Retirement System (SERS) is to establish and receive contributions which when combined with present assets and future investment return will be sufficient to meet the financial obligations of the System to present and future benefit recipients. The progress towards meeting those financial objectives is illustrated in the Schedules of Funding Progress and the Schedules of Employer Contributions.

We performed actuarial valuations and issued actuarial reports for SERS as of September 30, 2013. The purpose of the September 30, 2013 annual actuarial valuations was to determine the contribution requirements for the fiscal year ending September 30, 2014, to measure the System's funding progress, and to provide actuarial information in connection with applicable Governmental Accounting Standards Board statements. The valuations should not be relied upon for any other purpose. The valuation process develops employer contributions that are sufficient to fund the System's normal cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund any unfunded accrued liabilities over a reasonable period. The valuation was completed based upon population data, asset data and plan provisions in effect on September 30, 2013.

The valuation was based upon information provided by the System's administrative staff concerning System benefit provisions, financial transactions, and individual members, terminated members, retirees and beneficiaries. We checked the data for internal and year to year consistency, but did not otherwise audit the data. As a result, we do not assume responsibility for the accuracy or completeness of the data provided by the System's administrative staff. The actuary summarizes and tabulates population data in order to analyze long term trends. The System's external auditor audits the actuarial data annually.

Annual actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rate of investment return and payroll growth, eligibility for the various classes of benefits and longevity among retired lives. These assumptions are adopted by the Board and the Department after considering the advice of the actuary and other professionals. The assumptions and the methods comply with the disclosure requirements of the applicable GASB Statements. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution requirements as needed.

# ACTUARIAL SECTION

## Actuary's Certification (continued)

Mr. David Behen  
October 27, 2014  
Page 2

Our firm provided the following supporting schedules for use in the Comprehensive Annual Financial Report:

### Financial Section

- Note 1 - Table of System's Membership
- Note 3 - Summary of Actuarial Assumptions
- Schedules of Funding Progress
- Schedules of Employer Contributions (Annual Required Contribution)

### Actuarial Section

- Summary of Actuarial Assumptions and Methods
- Percent of Eligible Active Members Retiring Within Next Year
- Separation from Active Employment Before Age and Service Retirement and Individual Pay Increase Assumptions
- Schedule of Active Member Pension Valuation Data
- Schedule of Changes in the Retirement Rolls
- Prioritized Solvency Tests
- Analysis of System Experience
- Schedule of Active Member OPEB Valuation Data
- Schedule of Changes in the OPEB Rolls

### Statistical Section

- Schedule of Retired Members by Type of Pension Benefit (Retirement Type)
- Schedule of Retired Members by Type of Pension Benefit (Selected Option)
- Schedule of Retired Members by Type of Health Benefit
- Schedule of Average Benefit Payments – Pension, Medical, Dental, and Vision

Although our firm provided supporting schedules in connection with GASB Statement Nos. 43 and 45, we recommend consultation with legal counsel and the auditors to determine whether Statement No. 43 applies.

The September 30, 2013 valuations were based upon assumptions that were recommended in connection with a study of System experience covering the period from October 1, 2002 through September 30, 2007. Future actuarial measurements may differ significantly from those presented in the annual valuations due to such factors as experience differing from that anticipated by actuarial assumptions, or changes in plan provisions, actuarial assumption/methods or applicable law. Due to the limited scope of the assignment, we did not perform an analysis of the potential range of future measurements.

# ***ACTUARIAL SECTION***

## **Actuary's Certification (continued)**

Mr. David Behen  
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The signing actuaries are independent of the plan sponsor.

The actuarial valuations of SERS as of September 30, 2013 were performed by qualified actuaries in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with applicable State statutes. Louise Gates and Mita Drazilov 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 herein. It is our opinion that the calculated employer contribution meets the financial objective of the Retirement System.

Respectfully submitted,



Louise Gates, ASA, MAAA



Mita D. Drazilov, ASA, MAAA

LMG:MDD:mrh

# ACTUARIAL SECTION

## Summary of Actuarial Assumptions and Methods

1. The investment return rate used in the valuations was 8% per year net of expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. Considering other financial assumptions, this investment return rate translates to an assumed long-term real rate of return of 4.5%. Adopted 2004.
2. The healthy life mortality table used in evaluating allowances to be paid was the RP-2000 Combined Healthy Mortality Table, adjusted for mortality improvements to 2020 using projection scale AA. Adopted 2010.
3. Sample probabilities of regular, unreduced retirement are shown in Schedule 1 on the next page. Adopted 2010.
4. Sample probabilities of withdrawal from service and disability, together with individual pay increase assumptions, are shown in Schedule 2 on the next page of this report. Adopted 2010.
5. The active member population is closed to new hires. This will result in a gradual reduction in the total active member payroll over time.
6. An individual entry age actuarial cost method of valuation was used in determining actuarial liabilities and normal cost. Adopted 1975. Unfunded actuarial accrued liabilities are financed over a declining 40-year period for years beginning October 1, 1996. Adopted 1996.
7. The Department of Technology, Management and Budget approved the use of market value of assets as of September 30, 2006 for valuation purposes. For investment gains and losses that occur after that date, a 5-year smoothing technique will be used. Specifically, the excess (shortfall) of actual investment income (including interest, dividends, realized and unrealized gains or losses) over the imputed-income at the valuation interest rate is considered the gain (loss), which is spread over five years. Adopted 2007.
8. The data including people now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.
9. The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA). The assumptions used in the actuarial valuations were adopted by the System's Board and the Department of Technology, Management and Budget after consulting with the actuary.
10. A 5-year experience investigation, covering the period from October 1, 2002 through September 30, 2007 was completed in 2010. The purpose of the study was to analyze the actual experience of the System versus that anticipated by actuarial assumptions then in use. Adopted 2010.
11. Gabriel, Roeder, Smith & Company was awarded the actuarial and consulting services contract beginning October 4, 2006.

# ACTUARIAL SECTION

## Summary of Actuarial Assumptions and Methods (continued)

### SCHEDULE 1

#### Percent of Eligible Active Members Retiring Within Next Year

Retirement Ages	Correction Officers	Conservation Officers	Other Members
45		28 %	
48		28	
51	27 %	28	
55	16	28	15 %
58	12	28	10
61	18	28	13
64	22	40	16
67	30	50	21
70	100	100	50
75	100	100	100

### SCHEDULE 2

#### Separation From Active Employment Before Age & Service Retirement & Individual Pay Increase Assumptions

Sample Ages	Years of Service	Percent of Active Members Withdrawing Within Next Year (Men and Women)	Percent of Active Members Becoming Disabled Within Next Year		Percent Increase In Pay During Next Year
			Non-Duty Disabilities	Duty Disabilities	
All	0	12.00 %			
	1	8.50			
	2	6.50			
	3	5.00			
	4	4.00			
25	5 & Over	3.50	0.03 %	0.00 %	9.5 %
35		2.50	0.10	0.01	4.7
45		2.00	0.34	0.04	4.0
55		1.75	0.92	0.08	3.9
60		1.75	2.10	0.11	3.5

# ACTUARIAL SECTION

## Actuarial Valuation Data

### Schedule of Active Member Pension Valuation Data

Valuation Date Sept. 30	Number	Reported Annual Payroll*	Average Annual Pay	% Increase (Decrease)	Average Age	Average Service
2004	34,749	\$ 1,889,410	\$ 54,373	6.8 %	48.4	19.0
2005	33,770	1,880,179	55,676	2.4	49.3	20.0
2006	32,575	1,847,653	56,720	1.9	50.1	21.0
2007	30,864	1,825,889	59,159	4.3	50.8	21.8
2008	28,568	1,763,672	61,736	4.4	51.4	22.7
2009	27,455	1,734,325	63,170	2.3	52.1	23.5
2010	25,478	1,621,709	63,651	0.8	52.6	24.1
2011	19,650	1,276,058	64,939	2.0	51.9	23.3
2012 <sup>1</sup>	17,860	1,551,591	64,703	(0.4)	52.5	24.2
2013	16,466	1,081,729	65,695	1.5	53.2	25.0

<sup>1</sup> Excludes 516 individuals who became active members of Defined Contribution Plan during the 2011-2012 plan year

\* In thousands of dollars

### Schedule of Active Member OPEB Valuation Data

Valuation Date Sept. 30	Number	Reported Annual Payroll*	Average Annual Pay	% Increase (Decrease)	Average Age	Average Service
2012	50,609	\$ 2,895	\$ 57,207		45.4	13.3
2013	50,419	2,881	57,144	(0.11)%	45.5	13.4

\* In millions of dollars

# ACTUARIAL SECTION

## Actuarial Valuation Data

### Schedule of Changes in the Retirement Rolls

Year Ended Sept. 30	Added to Rolls		Removed from Rolls		Rolls—End of Year		% Increase in Annual Allowances	Average Annual Allowances
	No.	Annual Allowances*	No.	Annual Allowances*	No.	Annual Allowances*		
2004	1,561	\$ 23,195	1,433	\$ 2,715	45,619	\$ 729,087	2.9 %	\$ 15,982
2005	1,542	25,024	1,360	6,683	45,801	747,428	2.5	16,319
2006	1,728	41,794	1,549	20,126	45,980	769,096	2.9	16,727
2007	2,206	52,687	1,300	19,765	46,886	802,018	4.3	17,106
2008	2,653	63,219	1,461	22,625	48,078	842,612	5.1	17,526
2009	2,423	61,683	1,472	23,531	49,029	880,763	4.5	17,964
2010	2,937	78,647	1,504	23,518	50,462	934,092	6.1	18,511
2011	6,656	205,413	1,470	25,542	55,648	1,113,963	19.3	20,018
2012	2,186	59,238	1,546	29,801	56,288	1,143,400	2.6	20,313
2013	2,181	63,061	1,615	31,132	56,854	1,175,329	2.8	20,673

\*In thousands of dollars

### Schedule of Changes in the OPEB Rolls

Year Ended Sept. 30	Added to Rolls		Removed from Rolls		Rolls—End of Year		% Increase in Annual Allowances	Average Annual Allowances
	No.	Annual Allowances*	No.	Annual Allowances*	No.	Annual Allowances*		
2011					50,194	\$ 476,201		
2012	1,915	\$ 22,870	1,530	\$ 27,052	45,491	472,019	(0.9) %	\$ 9,332
2013	1,852	20,413	1,630	46,270	50,801	446,162	(5.5)	8,783

Notes:

\*In thousands of dollars

No. refers to the number of retiree health contracts

Annual Allowance added to rolls includes increases due to medical inflation and contract changes.

Annual allowances removed from rolls includes decreases due to contract changes

# ACTUARIAL SECTION

## Prioritized Solvency Test

The System's funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will pay all promised benefits when due, the ultimate test of financial soundness. Testing for level contribution rates is the long-term solvency test.

A prioritized solvency test is another means of checking a System's progress under its funding program. In a short condition test, the System's present assets (cash and investments) are compared with: (1) active member contributions on deposit; (2) the liabilities for future benefits to present retired lives; and (3) the liabilities for service already rendered by active and inactive members. In a system following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) are normally partially covered by the remainder of present assets. Generally, if the System has been using level-cost financing, the funded portion of liability 3 will increase over time. Liability 3 being fully funded is not necessarily a by-product of level percent of payroll funding methods.

The schedules that follow illustrate the history of the liabilities of the System and are indicative of the System's policy of following the discipline of level percent of payroll financing.

<b>Pension Benefits</b>									
(\$ in millions)									
Valuation Date	Actuarial Accrued Liability (AAL)			Valuation Assets	Portion of AAL Covered by Assets				
	(1)	(2)	(3)		(1)	(2)	(3)	(4) <sup>3</sup>	
	Active Member Contributions	Retirants and Beneficiaries	Active and Inactive Members (Employer Financed Portion)						
Sept. 30									
2004	\$ 78	\$ 7,503	\$ 4,586	\$ 10,149	100 %	100 %	56.0 %	83.4 %	
2005	97	7,607	4,696	9,897	100	100	46.7	79.8	
2006	107	7,607	5,085	10,111	100	100	47.1	79.0	
2006 <sup>1</sup>	107	7,607	5,085	10,890	100	100	62.5	85.1	
2007	116	7,847	5,199	11,344	100	100	65.0	86.2	
2008	119	8,361	5,286	11,403	100	100	55.3	82.8	
2009	127	8,681	5,426	11,107	100	100	42.4	78.0	
2010	138	9,151	5,239	10,782	100	100	28.5	74.2	
2010 <sup>2</sup>	138	9,265	5,457	10,782	100	100	25.3	72.6	
2011	93	11,197	4,307	10,212	100	90.4	0.0	65.5	
2012	121	11,392	4,141	9,447	100	81.9	0.0	60.3	
2013	162	11,612	3,874	9,438	100	79.9	0.0	60.3	

<sup>1</sup> Revised asset valuation method.

<sup>2</sup> Revised actuarial assumptions.

<sup>3</sup> Percents funded on a total valuation asset and total actuarial accrued liability basis.

# ACTUARIAL SECTION

## Prioritized Solvency Test (continued)

### Other Postemployment Benefits (\$ in millions)

Valuation Date	Actuarial Accrued Liability (AAL)			Valuation Assets	Portion of AAL Covered by Assets			
	(1)	(2)	(3)		(1)	(2)	(3)	(4) <sup>1</sup>
	Active Member Contributions	Retirants and Beneficiaries	Active and Inactive Members (Employer Financed Portion)					
Sept. 30								
2007		\$ 6,389	\$ 6,576		0.0 %	0.0 %	0.0 %	0.0 %
2008		6,759	6,783		0.0	0.0	0.0	0.0
2009		6,425	6,193		0.0	0.0	0.0	0.0
2010		7,655	7,011		0.0	0.0	0.0	0.0
2011		8,418	5,833		0.0	0.0	0.0	0.0
2012 <sup>2</sup>		5,633	3,124	\$ 344	0.0	6.1	0.0	3.9
2013		5,335	2,864	663	0.0	12.4	0.0	8.1

<sup>1</sup> Percents funded on a total valuation asset and total actuarial accrued liability basis.

<sup>2</sup> Revised actuarial assumptions

# ACTUARIAL SECTION

## Analysis of System Experience

### Gains/(Losses) in Accrued Liabilities During Year Ended September 30, 2013 Resulting from Differences Between Assumed Experience & Actual Experience

<u>Type of Activity</u>	<u>Gain/(Loss)</u>
1. <b>Retirements (including Disability Retirement).</b> If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, a loss.	\$ (950,559)
2. <b>Withdrawal From Employment</b> (including death-in-service). If more liabilities are released by withdrawals and deaths than assumed, there is a gain. If smaller releases, a loss.	(8,173,425)
3. <b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	85,621,373
4. <b>Investment Income.</b> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(213,845,008)
5. <b>Death After Retirement.</b> If retirants live longer than assumed, there is a loss. If not as long, a gain.	(35,301,304)
6. <b>Rehires.</b> Rehires will generally result in an actuarial loss.	(4,991,365)
7. <b>Other.</b> Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.	<u>80,853,473</u>
8. <b>Composite Gain (or Loss) During Year</b>	<u>\$ (96,786,815)</u>

# ***ACTUARIAL SECTION***

## **Summary of Plan Provisions**

Our actuarial valuation of the System as of September 30, 2013, is based on the present provisions of the Michigan State Employees' Retirement Act (Public Act 240 of 1943, as amended).

### ***Regular Retirement (no reduction factor for age)***

Eligibility - Age 55 with 30 years service, or age 60 with 10 or more years of service. Corrections Officers may retire at age 51 with 25 or more years of service, or age 56 with 10 or more years of service. Conservation Officers may retire after 25 years of service regardless of age.

Final Average Compensation - Regular retirement benefit is based on final average compensation (FAC), which is the average of highest three consecutive years (two years for Conservation Officers).

Annual Amount - Total service times 1.5% of FAC. For members with 20 or more years of service, a \$3,000 minimum annual benefit is payable. Corrections Officers receive an additional temporary supplement to age 62 equal to the product of supplemental service times 0.5% of FAC. Conservation Officers retiring after 25 years receive a benefit equal to 60% of FAC.

### ***Early Retirement (age reduction factor used)***

Eligibility - Age 55 with 15 or more years of service.

Annual Amount - Computed as regular retirement benefit but reduced by 0.5% for each month under age 60.

### ***Deferred Retirement (vested benefit)***

Eligibility - 10 years of service (five years for unclassified persons in the executive or legislative branch). Benefit commences at age 60.

Annual Amount - Computed as regular retirement benefit based on service and FAC at termination.

### ***Duty Disability Retirement***

Eligibility - No age or service requirement.

Annual Amount - Disability age 60+: Computed as regular retirement benefit with minimum benefit based on 10 years service. Disability prior to age 60: To age 60, benefit is computed as a regular retirement benefit using service at the time of disability retirement with a minimum benefit of \$6,000 per year. Additional limitation such that benefit plus workers' compensation does not exceed final compensation. At age 60, benefit is recomputed as a regular retirement benefit with service granted for period in receipt of disability benefit before age 60. If the member dies before age 60, benefits are payable to a surviving spouse computed as a regular retirement benefit but based on service at time of disability retirement plus elapsed time between date of retirement and age 60.

### ***Non-Duty Disability Retirement***

Eligibility - 10 years of service.

Annual Amount - Computed as regular retirement benefit based on service and FAC at time of disability. Minimum annual benefit is \$600.

# ACTUARIAL SECTION

## Summary of Plan Provisions (continued)

### *Duty Death Before Retirement*

Eligibility - No age or service requirement.

Annual Amount - Accumulated employee contributions are refunded. Surviving spouse receives annual benefit computed as a regular retirement benefit as if the deceased member retired the day before date of death and elected Option A. Benefit is based on member's service at time of death, or 10 years of service, whichever is greater. A minimum benefit of \$6,000 per year is payable. Children under age 21 each receive equal share of one-half of the benefit payable (surviving spouse receives the other half), to a maximum of one-half for all children. A given child's share of benefits terminates upon the child's marriage, death or attainment of age 21. In the event that there is no surviving spouse, the benefit is allocated equally among all children subject to the limitations described above. In the event that there is no surviving spouse or eligible children, benefits may be paid to an eligible, dependent parent. Benefits end upon the marriage or death of the surviving parent. Additional limitation such that benefit plus workers' compensation does not exceed final compensation.

### *Non-Duty Death Before Retirement*

Eligibility - 10 years of service. In the case of a deceased vested former member, the survivor benefit commences when the deceased former member would have attained age 60.

Annual Amount - Computed as regular retirement benefit but reduced in accordance with a 100% joint and survivor election.

### *Post-Retirement Cost-of-Living Adjustments*

One-time upward adjustments have been made in 1972, 1974, 1976, 1977 and 1987. Beginning in 1983, some benefit recipients share in a distribution of a portion of investment income earned in excess of 8% annually (supplemental payment). Beginning in 1988, all benefit recipients are eligible for automatic 3% annual (non-compounded) benefit increases, with a maximum \$300 annual increase. Eligibility for the above benefits:

Retired before October 1, 1987 Greater of supplemental payment or the combination of the 1987 one-time adjustment and the automatic increases.

Retired on or after October 1, 1987 Automatic increases only.

### *Post-Retirement Health Benefits Coverage*

Persons in receipt of retirement allowance (including members who did not retire directly from the System, but come from a vested deferred status), and their dependents, are eligible for 90% System paid health insurance coverage and 90% System paid dental and vision insurance.

### *Member Contributions*

None.

# ***ACTUARIAL SECTION***

## **Summary of Plan Provisions (continued)**

### ***Defined Contribution (Public Act 487 of 1996)***

New employees hired on or after March 31, 1997, become participants in Tier 2 (i.e., the defined contribution plan) rather than Tier 1 (i.e., the above described defined benefit plan).

Active members on March 30, 1997, had an opportunity to irrevocably elect to terminate membership in Tier 1 and become participants in Tier 2. Elections were in writing and submitted between January 2, 1998, and April 30, 1998. Such members became Tier 2 participants on June 1, 1998, and had the actuarial present value of their Tier 1 accrued benefit transferred into Tier 2 by September 30, 1998.

# STATISTICAL SECTION

Schedules of Additions by Source  
Schedules of Deductions by Type  
Schedules of Changes Fiduciary in Net Position  
Schedules of Benefits and Refunds by Type  
Schedules of Retired Members by Type of Benefit  
Schedule of Funding Progress – Pension Plan  
Schedule of Other Postemployment Benefits  
Schedules of Average Benefit Payments  
Ten Year History of Membership

# ***STATISTICAL SECTION***

This part of the System's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the System's overall financial health.

## **Contents**

### ***Financial Trends***

These schedules contain trend information to help the reader understand how the System's financial performance and fiscal health has changed over time. The schedules are presented for the last ten fiscal years. Schedules included are:

- Schedule of Pension Plan Additions by Source
- Schedule of OPEB Plan Additions by Source
- Schedule of Pension Plan Deductions by Type
- Schedule of OPEB Plan Deductions by Type
- Schedule of Changes in Fiduciary Net Position - Pension Plan
- Schedule of Changes in Fiduciary Net Position - OPEB Plan
- Schedule of Pension Benefits and Refunds by Type
- Schedule of OPEB Benefits and Refunds by Type

### ***Operating Information***

These schedules contain contextual information to assist the reader's understanding of how the System's financial information relates to the combination of participating members and the benefits it provides. Schedules are presented for the last ten fiscal years, except where noted. Schedules included are:

- Schedule of Retired Members by Type of Pension Benefit
- Schedule of Retired Members by Type of Other Postemployment Benefit
- Schedule of Funding Progress - Pension Plan
- Schedule of Other Postemployment Benefits
- Schedule of Average Benefit Payments - Pension
- Schedule of Average Benefit Payments - Health
- Schedule of Average Benefit Payments - Dental
- Schedule of Average Benefit Payments - Vision
- Ten Year History of Membership

# STATISTICAL SECTION

## Schedule of Pension Plan Additions by Source

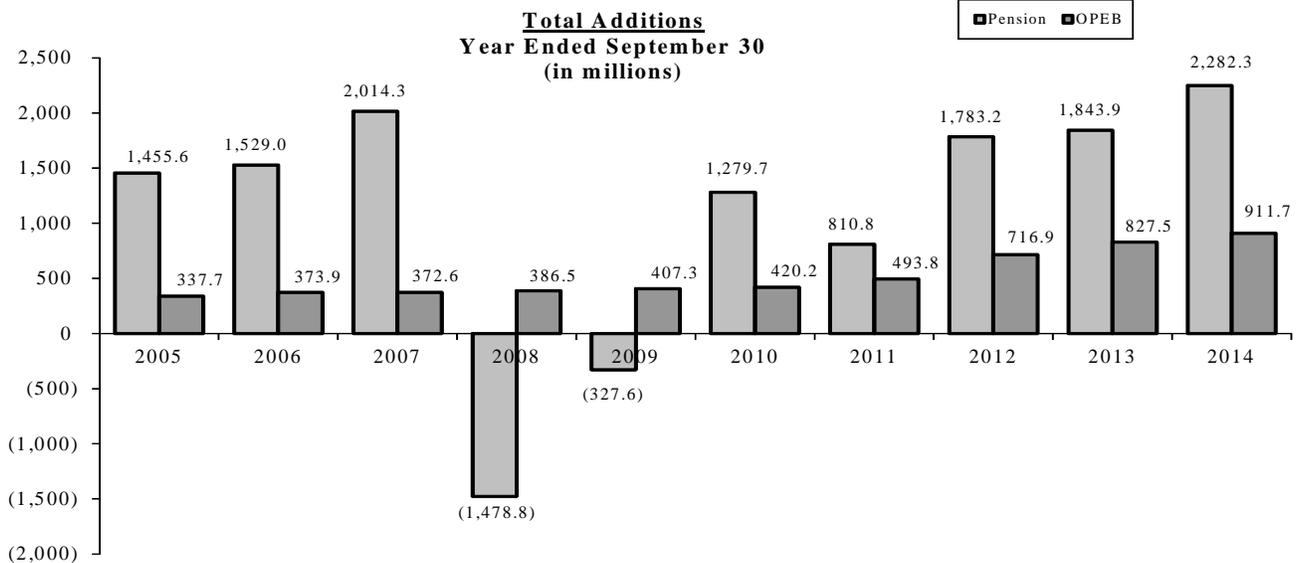
Last Ten Years

Fiscal Year Ended Sept. 30	Member Contributions	Employer Contributions		Net Investment & Other Income	Total
		Dollars	% of Annual Covered Payroll		
2005	\$ 30,395,040	\$ 256,433,052	13.6	% \$ 1,168,811,938	\$ 1,455,640,030
2006	9,434,310	270,705,017	14.7	1,248,845,519	1,528,984,846
2007	19,696,132	150,858,506	8.3	1,843,763,625	2,014,318,263
2008	5,643,805	355,732,115	20.2	(1,840,212,839)	(1,478,836,919)
2009	6,994,975	343,787,486	19.8	(678,361,614)	(327,579,153)
2010	26,055,668	369,952,868	22.8	883,696,454	1,279,704,990
2011	25,830,556	424,546,805	3.3	360,432,214	810,809,575
2012	33,290,784	419,926,997	36.3	1,330,021,741	1,783,239,522
2013	53,035,321	604,845,495	55.9	1,185,983,179	1,843,863,995
2014	47,527,233	705,100,454	NA	1,529,625,882	2,282,253,569

## Schedule of OPEB Plan Additions by Source

Last Ten Years

Fiscal Year Ended Sept. 30	Member Contributions	Employer Contributions		Net Investment & Other Income	Total
		Dollars	% of Annual Covered Payroll		
2005	\$ 10,701,614	\$ 324,305,023	17.3	% \$ 2,712,374	\$ 337,719,011
2006	11,528,041	356,674,243	19.3	5,660,782	373,863,066
2007	11,760,544	359,375,055	19.4	1,500,072	372,635,671
2008	13,099,796	342,186,903	19.4	31,242,590	386,529,289
2009	20,982,595	362,419,285	20.9	23,861,475	407,263,355
2010	20,905,488	360,125,502	12.3	39,150,651	420,181,641
2011	27,647,644	388,196,118	30.4	77,916,883	493,760,645
2012	27,431,916	648,881,078	56.1	40,613,600	716,926,650
2013	43,590,023	688,348,987	23.9	95,530,670	827,469,704
2014	40,441,402	700,938,446	NA	170,312,487	911,692,335



# STATISTICAL SECTION

## Schedule of Pension Plan Deductions by Type

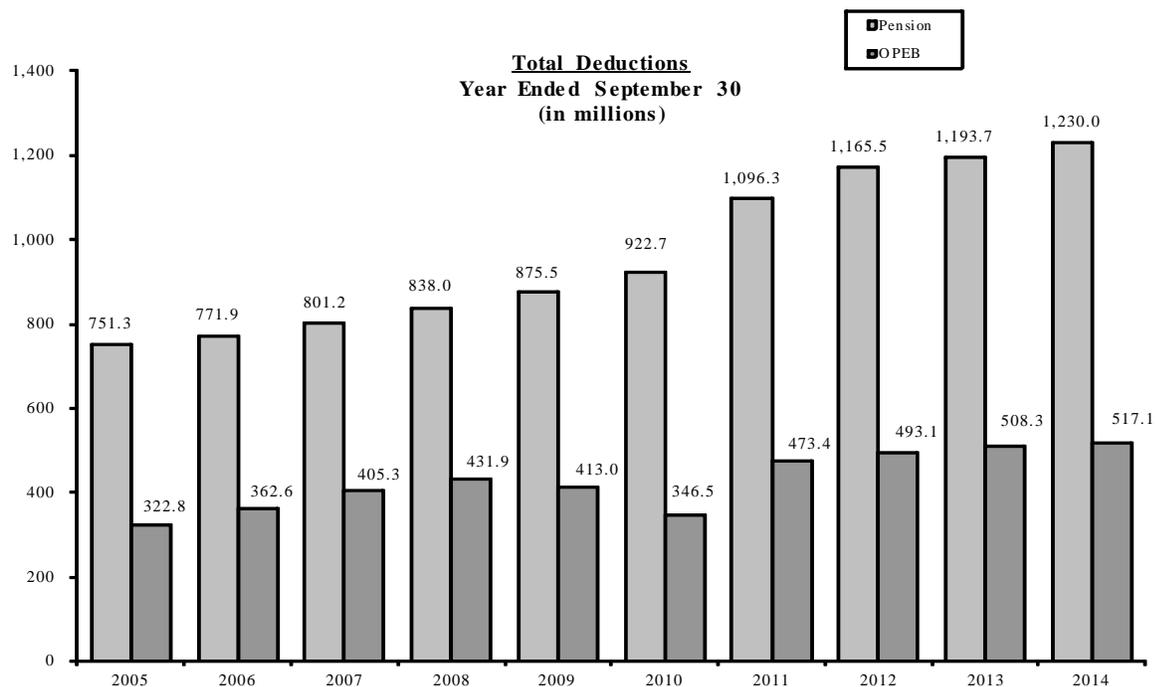
Last Ten Years

Fiscal Year Ended Sept. 30	Benefit Payments	Refunds and Transfers	Administrative and Other Expenses	Total
2005	\$ 746,673,263	\$ 306,643	\$ 4,297,985	\$ 751,277,891
2006	767,000,706	256,533	4,628,043	771,885,282
2007	795,842,013	229,600	5,115,226	801,186,839
2008	832,553,176	373,916	5,048,737	837,975,829
2009	870,278,863	366,039	4,865,232	875,510,134
2010	917,328,820	315,367	5,073,446	922,717,633
2011	1,089,822,880	474,986	6,079,017	1,096,376,883
2012	1,156,035,451	188,926	9,253,880	1,165,478,257
2013	1,187,911,357	114,053	5,658,318	1,193,683,728
2014	1,222,881,091	151,929	6,930,656	1,229,963,676

## Schedule of OPEB Plan Deductions by Type

Last Ten Years

Fiscal Year Ended Sept. 30	Benefit Payments	Refunds and Transfers	Administrative and Other Expenses	Total
2005	\$ 322,834,138			\$ 322,834,138
2006	362,597,685			362,597,685
2007	363,975,051	\$ 41,304,031		405,279,082
2008	377,513,873	35,001,063	\$ 19,393,665	431,908,601
2009	392,135,386	2,431	20,896,664	413,034,481
2010	330,512,704	10,741	15,955,963	346,479,408
2011	456,878,993	21,085	16,536,168	473,436,246
2012	476,508,499	16,904	16,618,156	493,143,559
2013	485,707,110	14,735	22,603,899	508,325,744
2014	491,569,369	22,624	25,536,117	517,128,110



# STATISTICAL SECTION

## Schedule of Changes in Fiduciary Net Position - Pension Plan

Last Ten Years  
(in thousands)

	Fiscal Year									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Member contributions	\$ 30,395	\$ 9,435	\$ 19,696	\$ 5,644	\$ 6,995	\$ 26,056	\$ 25,831	\$ 33,291	\$ 53,035	\$ 47,527
Employer contributions	256,433	270,705	150,858	355,732	343,787	369,953	424,547	419,927	604,845	705,100
DC savings subaccount										
Net investment income	1,168,690	1,248,616	1,801,588	(1,840,587)	(678,588)	883,511	360,284	1,329,925	1,185,726	1,529,583
Transfer from other systems	120	123	106	190	93	50	2		1	
Transfer from pension/ OPEB plan			41,304							
Miscellaneous income	2	106	766	184	133	135	146	96	256	43
<b>Total Additions</b>	<b>1,455,640</b>	<b>1,528,985</b>	<b>2,014,318</b>	<b>(1,478,837)</b>	<b>(327,579)</b>	<b>1,279,705</b>	<b>810,810</b>	<b>1,783,240</b>	<b>1,843,864</b>	<b>2,282,253</b>
Pension benefits	746,673	767,000	795,842	832,553	870,279	917,329	1,089,823	1,156,035	1,187,911	1,222,881
Refunds of member contributions	292	254	222	291	316	299	470	189	105	152
Transfer to pension/ OPEB plan										
Transfers to other systems	15	3	8	83	50	17	5		9	
Administrative and other expenses	4,298	4,628	5,115	5,049	4,865	5,073	6,079	9,254	5,658	6,931
<b>Total Deductions</b>	<b>751,278</b>	<b>771,885</b>	<b>801,187</b>	<b>837,976</b>	<b>875,510</b>	<b>922,718</b>	<b>1,096,377</b>	<b>1,165,478</b>	<b>1,193,684</b>	<b>1,229,964</b>
<b>Changes in net position</b>	<b>\$ 704,362</b>	<b>\$ 757,100</b>	<b>\$ 1,213,131</b>	<b>\$ (2,316,813)</b>	<b>\$ (1,203,089)</b>	<b>\$ 356,987</b>	<b>\$ (285,567)</b>	<b>\$ 617,762</b>	<b>\$ 650,180</b>	<b>\$ 1,052,290</b>

## Schedule of Changes in Fiduciary Net Position - OPEB Plan

Last Ten Years  
(in thousands)

	Fiscal Year									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Member contributions	\$ 10,702	\$ 11,528	\$ 11,761	\$ 13,100	\$ 20,983	\$ 20,905	\$ 27,648	\$ 27,432	\$ 43,590	\$ 40,441
Employer contributions	324,305	356,674	359,375	342,187	362,419	360,126	388,196	648,881	688,349	700,938
Other governmental contributions				23,004	21,987	27,058	64,773	23,774	41,514	54,945
DC savings subaccount										
Net investment income	2,712	5,661	1,500	657	1,359	11,815	12,851	16,592	53,592	115,308
Transfers from other systems				6,884						
Transfer from pension/ OPEB plan										
Miscellaneous income				698	516	278	293	248	425	60
<b>Total Additions</b>	<b>337,719</b>	<b>373,863</b>	<b>372,636</b>	<b>386,530</b>	<b>407,263</b>	<b>420,182</b>	<b>493,761</b>	<b>716,927</b>	<b>827,470</b>	<b>911,692</b>
Health care benefits	322,834	362,598	363,975	377,513	392,135	330,513	456,879	476,508	485,707	491,569
Refunds of member contributions				2	2	11	21	17	15	23
Transfer to pension/ OPEB plan			41,304							
Transfers to other systems				35,000						
Administrative and other expenses				19,394	20,897	15,956	16,536	16,618	22,604	25,536
<b>Total Deductions</b>	<b>322,834</b>	<b>362,598</b>	<b>405,279</b>	<b>431,909</b>	<b>413,034</b>	<b>346,479</b>	<b>473,436</b>	<b>493,144</b>	<b>508,326</b>	<b>517,128</b>
<b>Changes in net position</b>	<b>\$ 14,885</b>	<b>\$ 11,265</b>	<b>\$ (32,643)</b>	<b>\$ (45,379)</b>	<b>\$ (5,771)</b>	<b>\$ 73,702</b>	<b>\$ 20,325</b>	<b>\$ 223,783</b>	<b>\$ 319,144</b>	<b>\$ 394,564</b>

# STATISTICAL SECTION

## Schedule of Pension Benefits and Refunds by Type

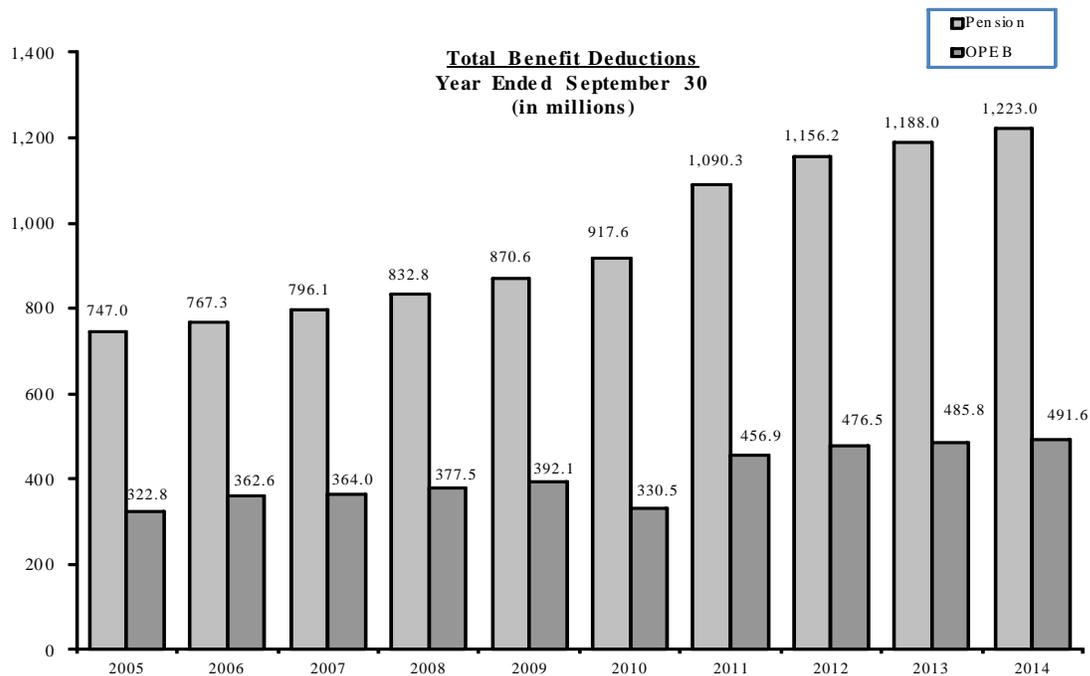
Last Ten Years

Fiscal Year Ended Sept. 30	Regular Benefits	Disability Benefits	Survivor Benefits	Refunds				Total
				Employee Contribution	Employer Contribution	Retired Benefit	Investment Income	
2005	\$ 704,890,377	\$41,782,886		\$ 63,782	\$ 227,810			\$ 746,964,855
2006	676,029,503	37,961,735	\$ 53,009,468	145,554	105,809	\$ 2,523		767,254,592
2007	688,989,246	38,666,660	68,186,107	42,892	178,316	831		796,064,052
2008	720,224,862	39,877,844	72,450,470	69,741	219,335	1,702		832,843,954
2009	752,155,935	40,876,663	77,246,265	177,079	133,294	5,618		870,594,854
2010	793,100,996	42,118,014	82,109,810	12,698	280,046	6,119		917,627,683
2011	960,389,210	42,816,787	86,616,883	44,655	417,337	8,411		1,090,293,283
2012	1,020,591,855	44,263,358	91,180,238	54,635	111,837	20,419	\$ 2,035	1,156,224,377
2013	1,046,440,379	44,960,182	96,510,796	46,830	47,317	11,111		1,188,016,615
2014	1,075,606,289	46,058,694	101,216,109	77,348	75,536	(955)		1,223,033,020

## Schedule of OPEB Benefits and Refunds by Type

Last Ten Years

Fiscal Year Ended Sept. 30	Health Benefits	Dental Benefits	Vision Benefits	Personal Health Care	Health Reimbursement Acct	Health Refunds	Total
2005	\$295,431,830	\$23,740,953	\$3,661,355				\$322,834,138
2006	328,528,595	29,583,938	4,485,152				362,597,685
2007	329,714,449	29,750,672	4,509,930				363,975,051
2008	345,286,591	29,046,230	3,181,052			\$ 295	377,514,168
2009	358,691,332	30,140,662	3,303,392			2,431	392,137,817
2010	295,928,047	31,532,621	3,052,036			10,741	330,523,445
2011	417,417,811	35,820,611	3,640,571			21,085	456,900,078
2012	433,878,978	37,327,504	3,961,792	\$1,340,225		16,904	476,525,403
2013	440,197,204	37,726,459	3,377,956	4,433,182	\$ 10,126	14,735	485,759,661
2014	446,022,465	38,154,766	3,466,375	3,907,862	17,902	22,624	491,591,993



# STATISTICAL SECTION

## Schedule of Retired Members by Type of Pension Benefit

September 30, 2013

Amount of Monthly Pension Benefit	Number of Retirees	Type of Retirement *							
		1	2	3	4	5	6	7	8
\$ 1 - 200	410	249	110	5	32		8	1	5
201 - 400	2,094	1,404	368	11	197	1	44	2	67
401 - 600	3,737	2,288	583	24	507		127	12	196
601 - 800	4,809	2,761	600	182	694	16	233	28	295
801 - 1,000	4,586	2,792	566	7	669	1	200	89	262
1,001 - 1,200	4,294	2,619	419	22	622	1	201	163	247
1,201 - 1,400	4,276	2,742	373	14	552		204	214	177
1,401 - 1,600	4,373	3,014	390	11	366		153	315	124
1,601 - 1,800	4,241	3,230	298	6	198	1	104	331	73
1,801 - 2,000	3,985	3,102	233	9	135		78	383	45
Over 2,000	20,049	16,469	555	4	123		161	2,658	79
Totals	<u>56,854</u>	<u>40,670</u>	<u>4,495</u>	<u>295</u>	<u>4,095</u>	<u>20</u>	<u>1,513</u>	<u>4,196</u>	<u>1,570</u>

\* Type of Retirement

- 1 - Normal retirement for age & service
- 2 - Survivor payment - normal or early retirement
- 3 - Duty disability retirement (incl. survivors)
- 4 - Non-duty disability retirement (incl. survivors)
- 5 - Survivor payment - duty death in service
- 6 - Survivor payment - non-duty death in service
- 7 - Retirees with supplemental benefits for early retirement incentive factors
- 8 - Retirees with reduced benefits for early retirement reduction factors

# STATISTICAL SECTION

## Schedule of Retired Members by Type of Pension Benefit (continued)

September 30, 2013

Amount of Monthly Pension Benefit	Number of Retirees	Selected Option **							
		Reg.	Opt. A	Opt. B	Opt. C	Opt. E	Opt. E1	Opt. E2	Opt. E3
\$ 1 - 200	410	120	120	117	6	34	6	7	
201 - 400	2,094	826	570	447	45	129	34	41	2
401 - 600	3,737	1,489	1,067	645	90	242	78	117	9
601 - 800	4,809	1,996	1,240	740	102	429	115	181	6
801 - 1,000	4,586	1,748	1,181	744	121	510	97	169	16
1,001 - 1,200	4,294	1,783	1,196	651	121	299	73	152	19
1,201 - 1,400	4,276	1,870	1,236	644	146	235	50	82	13
1,401 - 1,600	4,373	1,930	1,346	661	177	148	56	48	7
1,601 - 1,800	4,241	1,774	1,306	764	217	92	51	31	6
1,801 - 2,000	3,985	1,648	1,208	674	252	87	64	38	14
Over 2,000	20,049	7,749	5,455	3,577	1,444	910	335	422	157
<b>Totals</b>	<b>56,854</b>	<b>22,933</b>	<b>15,925</b>	<b>9,664</b>	<b>2,721</b>	<b>3,115</b>	<b>959</b>	<b>1,288</b>	<b>249</b>

\*\*Selected Option

Reg. - Straight life allowance

Opt. A - 100% survivor option

Opt. B - 50% survivor option

Opt. C - 75% survivor option

Opt. E - Social Security equated

Opt. E1 - Social Security equated w/100% survivor option

Opt. E2 - Social Security equated w/50% survivor option

Opt. E3 - Social Security equated w/75% survivor option

Source: Gabriel Roeder Smith & Co.

## Schedule of Retired Members by Type of Other Postemployment Benefit

September 30, 2013

Amount of Monthly Pension Benefit	Retired Members	Type of Other Postemployment Benefits		
		Health	Dental	Vision
\$ 1 - 200	410	206	213	216
201 - 400	2,094	1,263	1,290	1,283
401 - 600	3,737	2,689	2,753	2,755
601 - 800	4,809	3,899	3,958	3,945
801 - 1,000	4,586	3,867	3,923	3,927
1,001 - 1,200	4,294	3,775	3,810	3,810
1,201 - 1,400	4,276	3,841	3,875	3,876
1,401 - 1,600	4,373	4,002	4,026	4,027
1,601 - 1,800	4,241	3,891	3,926	3,915
1,801 - 2,000	3,985	3,691	3,737	3,725
Over 2,000	20,049	18,501	18,765	18,729
<b>Totals</b>	<b>56,854</b>	<b>49,625</b>	<b>50,276</b>	<b>50,208</b>

Source: Gabriel Roeder Smith & Co.

# STATISTICAL SECTION

## Schedules of Funding Progress - Pension Plan

Pension Benefits (\$ in millions)

Valuation Date Sept 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Overfunded) Accrued Liability (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2004 <sup>1</sup>	\$ 10,149	\$ 12,004	\$ 1,855	84.5 %	\$ 1,889	98.2 %
2005	9,897	12,400	2,503	79.8	1,880	133.1
2006	10,111	12,799	2,688	79.0	1,848	145.5
2006 <sup>2</sup>	10,890	12,799	1,909	85.1	1,848	103.3
2007	11,344	13,162	1,818	86.2	1,826	99.6
2008	11,403	13,766	2,363	82.8	1,764	134.0
2009	11,107	14,234	3,127	78.0	1,734	180.3
2010 <sup>1</sup>	10,782	14,860	4,078	72.6	1,622	251.5
2011	10,212	15,597	5,385	65.5	1,276	422.0
2012	9,447	15,654	6,207	60.3	1,156	537.1
2013	9,438	15,648	6,210	60.3	1,082	574.1

<sup>1</sup> Revised actuarial assumptions.

<sup>2</sup> Revised asset valuation method.

## Schedule of Other Postemployment Benefits

For Year Ended September 30, 2014

	<u>2014</u>
<b>Claims</b>	
Health Insurance	\$ 423,885,648
Vision Insurance	3,331,611
Dental Insurance	37,299,711
<b>Total Claims</b>	<u>464,516,970</u>
Estimated Claims Liability	
Health Insurance	22,136,817
Vision Insurance	134,764
Dental Insurance	855,055
<b>Total Estimated Claims Liability</b>	<u>23,126,636</u>
<b>Administrative Fees</b>	
Health Insurance	23,544,748
Vision Insurance	251,568
Dental Insurance	1,739,800
<b>Total Administrative Fees</b>	25,536,117
<b>Subtotal</b>	
Refunds	22,624
Personal Health Care	3,907,862
Health Reimbursement Account	17,902
<b>Grand Total</b>	<u><u>\$ 517,128,110</u></u>

# STATISTICAL SECTION

## Schedule of Average Benefit Payments - Pension

### Last Ten Years

Payment Periods	Credited Service (Years) as of September 30							Total
	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30+	
Period 10/1/03 to 9/30/04								
Average Monthly Benefit	\$ 475	\$ 429	\$ 528	\$ 783	\$ 1,112	\$ 1,618	\$ 2,036	\$ 1,332
Average Final Average Salary	6,315	34,463	29,897	31,520	34,992	40,396	43,751	36,939
Number of Active Retirants	687	454	6,842	7,262	7,287	9,951	13,136	45,619
Period 10/1/04 to 9/30/05								
Average Monthly Benefit	\$ 491	\$ 437	\$ 545	\$ 807	\$ 1,136	\$ 1,650	\$ 2,077	\$ 1,360
Average Final Average Salary	5,754	34,264	29,838	31,806	34,749	40,329	43,302	36,774
Number of Active Retirants	712	453	6,850	7,272	7,303	10,035	13,176	45,801
Period 10/1/05 to 9/30/06								
Average Monthly Benefit	\$ 381	\$ 432	\$ 562	\$ 831	\$ 1,158	\$ 1,673	\$ 2,094	\$ 1,394
Average Final Average Salary	20,190	35,841	31,723	33,730	36,861	41,827	45,468	39,123
Number of Active Retirants	221	459	6,896	7,340	7,380	10,235	13,449	45,980
Period 10/1/06 to 9/30/07								
Average Monthly Benefit	\$ 410	\$ 449	\$ 575	\$ 856	\$ 1,189	\$ 1,702	\$ 2,133	\$ 1,425
Average Final Average Salary	20,673	36,684	32,290	34,739	37,877	42,531	46,435	40,007
Number of Active Retirants	229	481	6,980	7,470	7,499	10,380	13,847	46,886
Period 10/1/07 to 9/30/08								
Average Monthly Benefit	\$ 751	\$ 645	\$ 594	\$ 888	\$ 1,227	\$ 1,731	\$ 2,182	\$ 1,460
Average Final Average Salary	25,963	38,066	33,076	35,846	39,066	43,268	47,724	40,996
Number of Active Retirants	571	640	7,054	7,550	7,553	10,428	14,282	48,078
Period 10/1/08 to 9/30/09								
Average Monthly Benefit	\$ 870	\$ 847	\$ 624	\$ 924	\$ 1,268	\$ 1,757	\$ 2,234	\$ 1,497
Average Final Average Salary	28,021	39,237	34,045	36,778	40,234	44,008	48,993	41,965
Number of Active Retirants	915	956	7,070	7,554	7,578	10,378	14,578	49,029
Period 10/1/09 to 9/30/10								
Average Monthly Benefit	\$ 942	\$ 940	\$ 650	\$ 958	\$ 1,315	\$ 1,788	\$ 2,292	\$ 1,543
Average Final Average Salary	30,076	39,552	34,746	37,805	41,761	44,946	50,437	43,123
Number of Active Retirants	1,227	1,218	7,106	7,531	7,734	10,402	15,224	50,462
Period 10/1/10 to 9/30/11								
Average Monthly Benefit	\$ 987	\$ 1,005	\$ 670	\$ 993	\$ 1,373	\$ 1,850	\$ 2,440	\$ 1,668
Average Final Average Salary	31,075	39,981	35,412	39,132	43,695	47,053	54,109	45,804
Number of Active Retirants	1,298	1,386	7,139	7,656	8,199	11,216	18,754	55,648
Period 10/1/11 to 9/30/12								
Average Monthly Benefit	\$ 1,048	\$ 1,079	\$ 692	\$ 1,027	\$ 1,407	\$ 1,881	\$ 2,464	\$ 1,693
Average Final Average Salary	31,733	41,222	36,014	40,175	44,698	48,067	54,671	46,556
Number of Active Retirants	1,539	1,592	7,155	7,655	8,279	11,311	18,757	56,288
Period 10/1/12 to 9/30/13								
Average Monthly Benefit	\$ 1,055	\$ 1,126	\$ 707	\$ 1,051	\$ 1,434	\$ 1,902	\$ 2,489	\$ 1,723
Average Final Average Salary	31,296	41,294	36,418	41,064	45,578	48,834	53,324	47,333
Number of Active Retirants	1,102	1,795	7,192	7,710	8,388	11,554	19,113	56,854

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/03 to 9/30/05

# STATISTICAL SECTION

## Schedule of Average Benefit Payments - Health Last Nine Years

Payment Periods	Credited Service (Years) as of September 30							
	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30+	Total
Period 10/1/04 to 9/30/05								
Average Monthly Benefit	\$ 303	\$ 447	\$ 568	\$ 837	\$ 1,169	\$ 1,665	\$ 2,097	\$ 1,403
Average Final Average Salary	24,519	32,338	31,463	330,962	36,386	41,099	44,724	38,580
Number of Active Retirants	139	625	5,807	6,476	6,787	9,409	12,064	41,307
Period 10/1/05 to 9/30/06								
Average Monthly Benefit	\$ 337	\$ 446	\$ 582	\$ 851	\$ 1,190	\$ 1,693	\$ 2,127	\$ 1,427
Average Final Average Salary	25,056	32,732	32,188	34,003	37,149	41,689	45,360	39,296
Number of Active Retirants	136	623	5,812	6,510	6,805	9,469	12,158	41,513
Period 10/1/06 to 9/30/07								
Average Monthly Benefit	\$ 362	\$ 464	\$ 596	\$ 879	\$ 1,220	\$ 1,723	\$ 2,167	\$ 1,462
Average Final Average Salary	25,607	33,691	32,779	35,044	38,135	42,355	46,304	40,186
Number of Active Retirants	137	625	5,833	6,568	6,892	9,574	12,491	42,120
Period 10/1/07 to 9/30/08								
Average Monthly Benefit	\$ 836	\$ 622	\$ 618	\$ 912	\$ 1,258	\$ 1,752	\$ 2,218	\$ 1,502
Average Final Average Salary	29,453	35,651	33,645	36,130	39,275	43,094	47,598	41,221
Number of Active Retirants	423	730	5,821	6,572	6,933	9,596	12,881	42,956
Period 10/1/08 to 9/30/09								
Average Monthly Benefit	\$ 956	\$ 822	\$ 652	\$ 947	\$ 1,299	\$ 1,779	\$ 2,271	\$ 1,541
Average Final Average Salary	30,647	37,602	34,597	37,020	40,435	5	48,829	42,190
Number of Active Retirants	713	1,000	5,778	6,538	6,929	9,519	13,129	43,606
Period 10/1/09 to 9/30/10								
Average Monthly Benefit	\$ 1,018	\$ 922	\$ 682	\$ 982	\$ 1,344	\$ 1,813	\$ 2,329	\$ 1,591
Average Final Average Salary	31,884	38,449	35,351	37,985	41,901	44,759	50,256	42,190
Number of Active Retirants	982	1,218	5,721	6,487	7,046	9,516	13,741	44,711
Period 10/1/10 to 9/30/11								
Average Monthly Benefit	\$ 1,060	\$ 995	\$ 707	\$ 1,017	\$ 1,402	\$ 1,875	\$ 2,484	\$ 1,721
Average Final Average Salary	32,687	39,054	36,121	39,281	43,823	46,829	53,921	46,043
Number of Active Retirants	1,057	1,358	5,678	6,542	7,454	10,241	16,843	49,171
Period 10/1/11 to 9/30/12								
Average Monthly Benefit	\$ 1,120	\$ 1,075	\$ 731	\$ 1,055	\$ 1,439	\$ 1,910	\$ 2,512	\$ 1,751
Average Final Average Salary	33,240	40,547	36,734	40,426	44,805	47,850	54,591	46,845
Number of Active Retirants	1,257	1,526	5,612	6,520	7,503	10,286	16,816	49,520
Period 10/1/12 to 9/30/13								
Average Monthly Benefit	\$ 1,157	\$ 1,128	\$ 751	\$ 1,083	\$ 1,467	\$ 1,934	\$ 2,538	\$ 1,787
Average Final Average Salary	34,086	40,640	37,226	41,330	45,600	48,606	55,128	47,648
Number of Active Retirants	861	1,694	5,525	6,481	7,544	10,467	17,053	49,625

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 9/30/05

# STATISTICAL SECTION

## Schedule of Average Benefit Payments - Dental

Last Nine Years

Payment Periods	Credited Service (Years) as of September 30							Total
	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30+	
Period 10/1/04 to 9/30/05								
Average Monthly Benefit	\$ 306	\$ 452	\$ 571	\$ 843	\$ 1,175	\$ 1,673	\$ 2,107	\$ 1,412
Average Final Average Salary	25,022	32,929	31,707	33,355	36,623	41,323	44,940	38,843
Number of Active Retirants	139	623	5,782	6,413	6,732	9,378	12,098	41,165
Period 10/1/05 to 9/30/06								
Average Monthly Benefit	\$ 340	\$ 450	\$ 585	\$ 856	\$ 1,196	\$ 1,700	\$ 2,135	\$ 1,435
Average Final Average Salary	25,468	33,213	32,422	34,280	37,377	41,889	45,577	39,535
Number of Active Retirants	138	620	5,810	6,457	6,754	9,444	12,199	41,422
Period 10/1/06 to 9/30/07								
Average Monthly Benefit	\$ 364	\$ 468	\$ 598	\$ 884	\$ 1,225	\$ 1,730	\$ 2,176	\$ 1,469
Average Final Average Salary	26,051	34,210	32,996	35,318	38,325	42,551	46,514	40,418
Number of Active Retirants	140	621	5,841	6,520	6,849	9,559	12,532	42,062
Period 10/1/07 to 9/30/08								
Average Monthly Benefit	\$ 830	\$ 627	\$ 619	\$ 916	\$ 1,262	\$ 1,758	\$ 2,226	\$ 1,507
Average Final Average Salary	29,547	36,106	33,801	36,371	39,459	43,267	47,776	41,414
Number of Active Retirants	425	733	5,857	6,546	6,901	9,599	12,930	42,991
Period 10/1/08 to 9/30/09								
Average Monthly Benefit	\$ 958	\$ 823	\$ 652	\$ 950	\$ 1,302	\$ 1,784	\$ 2,277	\$ 1,545
Average Final Average Salary	30,843	37,869	34,704	37,227	40,591	43,967	48,964	42,344
Number of Active Retirants	712	1,009	5,835	6,548	6,928	9,549	13,209	43,790
Period 10/1/09 to 9/30/10								
Average Monthly Benefit	\$ 1,018	\$ 920	\$ 682	\$ 984	\$ 1,347	\$ 1,817	\$ 2,335	\$ 1,593
Average Final Average Salary	31,970	38,623	35,431	38,181	42,047	44,884	50,397	43,487
Number of Active Retirants	988	1,232	5,806	6,523	7,063	9,559	13,833	45,004
Period 10/1/10 to 9/30/11								
Average Monthly Benefit	\$ 1,060	\$ 985	\$ 706	\$ 1,020	\$ 1,404	\$ 1,879	\$ 2,488	\$ 1,724
Average Final Average Salary	32,815	39,018	36,186	39,483	43,935	46,955	54,041	46,163
Number of Active Retirants	1,058	1,380	5,761	6,587	7,487	10,300	17,014	49,585
Period 10/1/11 to 9/30/12								
Average Monthly Benefit	\$ 1,116	\$ 1,061	\$ 730	\$ 1,056	\$ 1,440	\$ 1,912	\$ 2,515	\$ 1,752
Average Final Average Salary	33,242	40,446	36,738	40,577	44,914	47,929	54,697	46,926
Number of Active Retirants	1,265	1,552	5,722	6,574	7,533	10,360	17,004	50,010
Period 10/1/12 to 9/30/13								
Average Monthly Benefit	\$ 1,148	\$ 1,113	\$ 749	\$ 1,083	\$ 1,469	\$ 1,936	\$ 2,542	\$ 1,786
Average Final Average Salary	33,972	40,611	37,229	41,452	45,774	48,676	55,250	47,723
Number of Active Retirants	873	1,727	5,657	6,580	7,602	10,555	17,282	50,276

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 9/30/05

# STATISTICAL SECTION

## Schedule of Average Benefit Payments - Vision

Last Nine Years

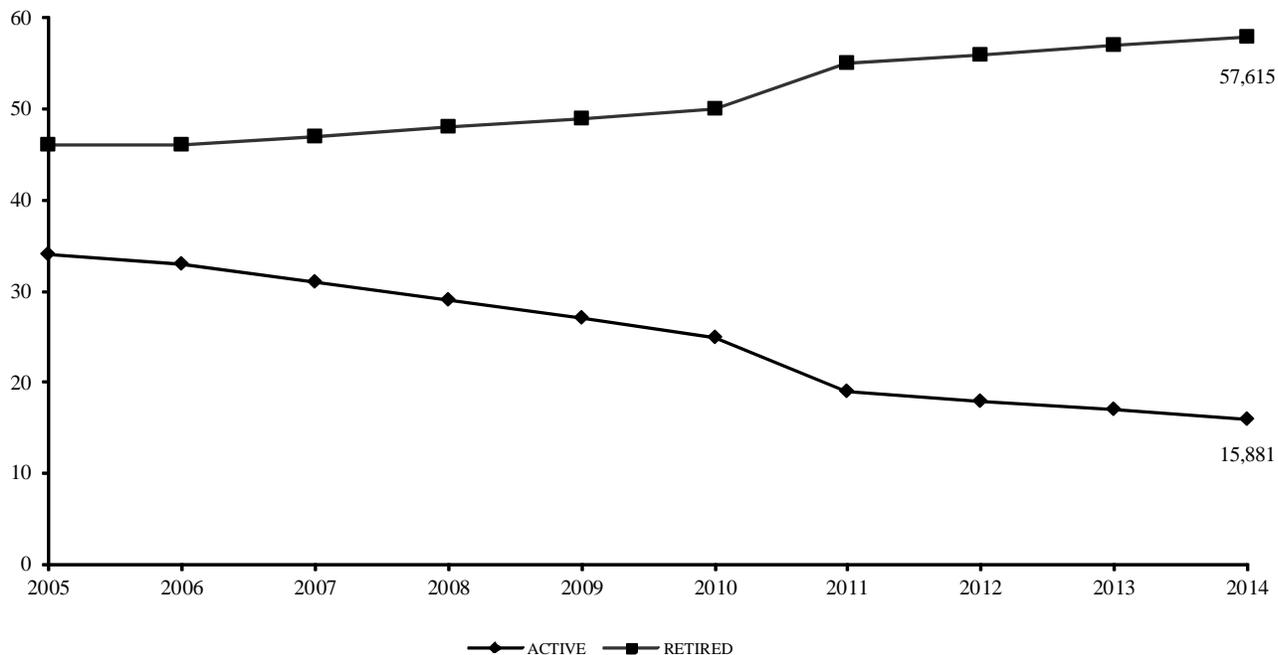
Payment Periods	Credited Service (Years) as of September 30							
	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30+	Total
Period 10/1/04 to 9/30/05								
Average Monthly Benefit	\$ 306	\$ 452	\$ 571	\$ 843	\$ 1,175	\$ 1,673	\$ 2,107	\$ 1,412
Average Final Average Salary	25,002	32,929	31,707	33,355	36,623	41,323	44,940	38,843
Number of Active Retirants	139	623	5,872	6,413	6,732	9,378	12,098	41,165
Period 10/1/05 to 9/30/06								
Average Monthly Benefit	\$ 340	\$ 450	\$ 585	\$ 856	\$ 1,196	\$ 1,700	\$ 2,135	\$ 1,435
Average Final Average Salary	25,468	33,213	32,422	34,280	37,377	41,889	45,557	39,535
Number of Active Retirants	138	620	5,810	6,457	6,754	9,444	12,199	41,422
Period 10/1/06 to 9/30/07								
Average Monthly Benefit	\$ 367	\$ 465	\$ 596	\$ 882	\$ 1,225	\$ 1,727	\$ 2,175	\$ 1,467
Average Final Average Salary	26,042	34,121	32,874	35,234	38,304	42,459	46,480	40,345
Number of Active Retirants	133	626	5,870	6,553	6,865	9,596	12,533	42,176
Period 10/1/07 to 9/30/08								
Average Monthly Benefit	\$ 837	\$ 624	\$ 617	\$ 915	\$ 1,262	\$ 1,755	\$ 2,225	\$ 1,505
Average Final Average Salary	29,578	36,009	33,699	36,302	39,449	43,189	47,742	41,355
Number of Active Retirants	418	739	5,877	6,577	6,915	9,632	12,933	43,091
Period 10/1/08 to 9/30/09								
Average Monthly Benefit	\$ 962	\$ 820	\$ 651	\$ 949	\$ 1,301	\$ 1,782	\$ 2,276	\$ 1,544
Average Final Average Salary	30,904	37,745	34,664	37,158	40,563	43,908	48,936	42,298
Number of Active Retirants	705	1,012	5,844	6,572	6,944	9,578	13,207	43,862
Period 10/1/09 to 9/30/10								
Average Monthly Benefit	\$ 1,002	\$ 920	\$ 681	\$ 984	\$ 1,346	\$ 1,815	\$ 2,334	\$ 1,592
Average Final Average Salary	32,028	38,597	35,398	38,124	42,003	44,829	50,368	43,449
Number of Active Retirants	983	1,230	5,798	6,539	7,072	9,583	13,828	45,033
Period 10/1/10 to 9/30/11								
Average Monthly Benefit	\$ 1,060	\$ 986	\$ 706	\$ 1,019	\$ 1,404	\$ 1,878	\$ 2,487	\$ 1,723
Average Final Average Salary	32,787	39,015	36,150	39,380	43,901	46,904	54,014	46,119
Number of Active Retirants	1,059	1,379	5,745	6,600	7,485	10,312	16,995	49,575
Period 10/1/11 to 9/30/12								
Average Monthly Benefit	\$ 1,119	\$ 1,064	\$ 731	\$ 1,055	\$ 1,439	\$ 1,910	\$ 2,514	\$ 1,751
Average Final Average Salary	33,334	40,464	36,727	40,487	44,846	47,885	54,663	46,886
Number of Active Retirants	1,262	1,549	5,695	6,583	7,528	10,363	16,979	49,959
Period 10/1/12 to 9/30/13								
Average Monthly Benefit	\$1,148	\$1,116	\$749	\$1,082	\$1,468	\$1,934	\$2,541	\$1,786
Average Final Average Salary	33,953	40,564	37,214	41,381	45,661	48,628	55,216	47,682
Number of Active Retirants	872	1,724	5,633	6,577	7,590	10,557	17,255	50,208

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 9/30/05

# STATISTICAL SECTION

## Ten Year History of Membership (In thousands)

Fiscal Year Ended September 30



Source: Gabriel Roeder Smith & Co.

## ACKNOWLEDGMENTS

The *Michigan State Employees' Retirement System Comprehensive Annual Financial Report* is prepared by Financial Services, Fiscal Management Division. Staff of the division for the fiscal year 2014 report included:

### Management:

Ronald W. Foss, Director  
Aver Hamilton, Accounting Manager

### Accountants:

Dan Harry  
Erik Simmer  
Paula Webb  
Carol Wheaton

### Technical and Support Staff:

Cristine Berns  
Jamin Schroeder

Special thanks are also extended to the Office of Retirement Services personnel, accounting and support personnel throughout Financial Services, Department of Community Health cashiering personnel, Investments Division of Treasury, Office of the Auditor General, Gabriel Roeder Smith & Co., and the staff at the Office of Financial Management. Preparation of this report would not have been possible without the efforts of these individuals.

The report may be viewed on-line at: [www.michigan.gov/ors](http://www.michigan.gov/ors)