

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, 2015**



M S E R S

Prepared by:
Financial Services
for
Office of Retirement Services
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INTRODUCTORY SECTION

Certificate of Achievement
Public Pension Standards Award
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Organization Chart

INTRODUCTORY SECTION

Certificate of Achievement



Government Finance Officers Association

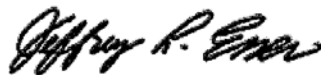
Certificate of Achievement for Excellence in Financial Reporting

Presented to

Michigan State Employees' Retirement System

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

September 30, 2014



Executive Director/CEO

INTRODUCTORY SECTION

Public Pension Standards Award



Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2015

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 dark ink, appearing to read '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

December 30, 2015

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 2015.

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

INTRODUCTORY SECTION

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, 2014. 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 2.6% for the Pension Plan and 2.5% for the Other Postemployment Benefits (OPEB) Plan. For the last five years, the System has experienced an annualized Long Term of 10.0% 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 \$10.0 billion and \$16.2 billion, respectively, resulting in a funded ratio of 61.6% on September 30, 2014. 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 \$1.1 billion and \$8.7 billion respectively resulting in a funded ratio of 12.1% at September 30, 2014. GASB Statement No. 43 (implemented in fiscal year 2007) does not require retroactive application of the reporting changes. Therefore, only nine 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

We moved! - During June and July, ORS relocated from the General Office Building to the newly renovated Stevens T. Mason Building in the Capitol Complex, downtown Lansing. Staff, vendors and the DTMB Move Team coordinated to make the move efficient, low-stress, and with minimal interruption of service for our customers.

ORS Launches Twitter and YouTube Channel - The next steps in the social media plan for ORS included the launch of the @MichiganORS Twitter account and the ORS YouTube channel. @MichiganORS has now passed 1,000 followers and the YouTube channel now hosts seven videos with over 5,000 views.

Business Process Reengineering (BPR) Deployed - The Business Process Reengineering (BPR) project went live on Monday, September 14. BPR deployed enhancements to the Employer Reporting website, which is how reporting units submit their retirement reports to ORS. The enhancements will save hours of work for DTMB Financial Services and ORS staff, reporting units and our members. The enhancements include a Defined Contribution (DC) component that brings DC records into our retirement database and transfers member's contributions to Voya Financial® sooner. In addition to the DC components, reporting units have an automated notification system and tools to help them report and make accurate and on-time payments.

miAccount Surpasses 400,000 Registered Users - ORS recently surpassed the milestone of 400,000 registered MiAccount users. miAccount is our online portal that connects members with their retirement account information and also allows members update their personal information.

Address Processes Upgraded - Upgrades were made to systems to allow up to three addresses for members (instead of one). The physical address will be where the member permanently resides including the county that the member resides in based on the member's zip code. The mailing address will be where the member wants their mail sent to, which includes a PO Box, or their "snowbird" address for the winter months. The legal address will store the address of a member's Power of Attorney (POA), guardian, or conservator.

INTRODUCTORY SECTION

Letter of Transmittal (continued)

Insurance Billing Auto-Allocation Implemented - An automated batch process was implemented in January 2015 to automatically allocate insurance bills to the appropriate receivable. This eliminates ORS's need for manual processing of all insurance payments deposited by Financial Services. Instead, ORS now only works those payments identified on an exception report. On the first run over 1,400 payments were automatically allocated.

HONORS

Public Pension Standards Award - ORS has recently been awarded the 2015 Public Pension Coordinating Council Standards Award from the Public Pension Coordinating Councils Standards Program (PPCC) for both funding and administration. ORS has received this award every year since 2004. The PPCC Standards reflect expectations for public retirement system management and administration, and serve as a benchmark for all defined benefit public plans to be measured.

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 2014 Comprehensive Annual Financial Report (CAFR). This marks the 24th consecutive year ORS has received this prestigious award

Acknowledgements

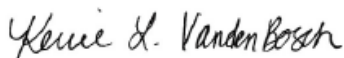
The preparation of this report was accomplished with the dedication and cooperation of many people. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible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

Sincerely,



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



Kerrie Vanden Bosch, Director
Office of Retirement Services

INTRODUCTORY SECTION

Administrative Organization

Retirement Board Members *

Vernon Johnson
Retiree Member
Term Expires July 31, 2016

Matthew Fedorchuk
Employee Member
Term Expires July 31, 2015

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

Molly Jason
Representing Attorney General
Ex officio

Craig Murray, Chair
Representing Deputy Auditor General
Ex officio

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

John Gnodtke
Representing State Personnel Director
Ex officio

Robert L. Brackenbury
Representing State Treasurer
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

Legal Advisor
Bill Schutte
Attorney General
State of Michigan

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

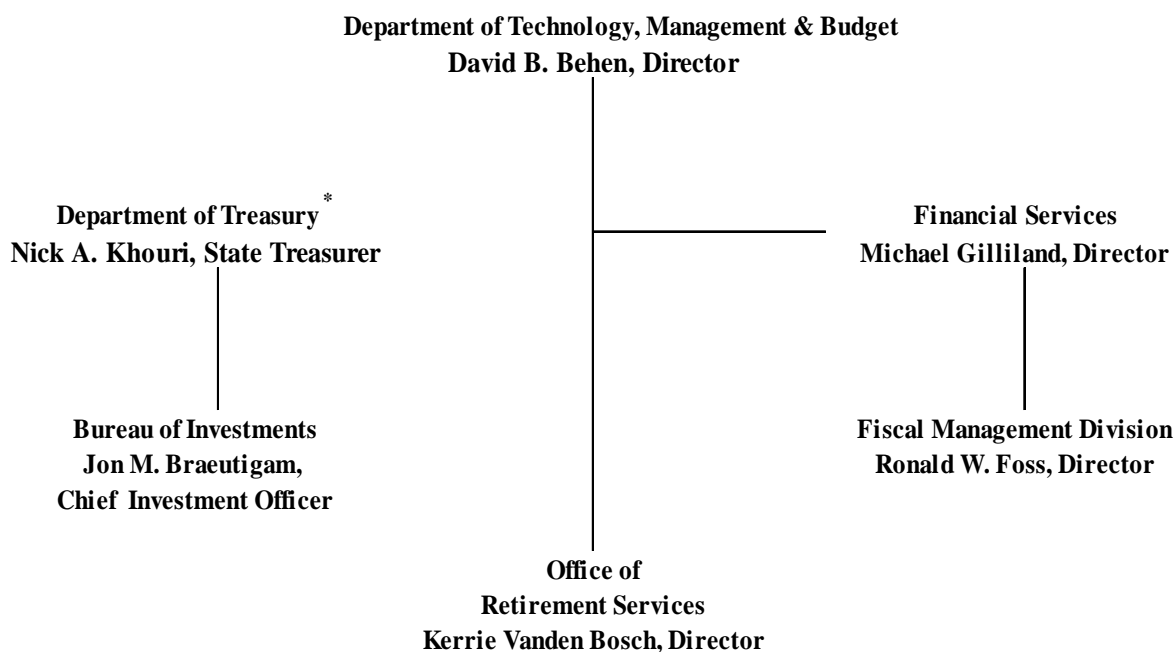
Investment Manager and Custodian
Nick A. Khouri
State Treasurer
State of Michigan

**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



Doug A. Ringler, CPA, CIA
Auditor General

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

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
Ms. Kerrie L. Vanden Bosch, Director
Office of Retirement Services

Dear Board, Mr. Behen, and Ms. Vanden Bosch:

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, 2015 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, 2015 and the changes in fiduciary net position for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America.



Doug A. Ringler, CPA, CIA
Auditor General

Michigan State Employees' Retirement System Board
Mr. David B. Behen, Director
Ms. Kerrie L. Vanden Bosch, 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 44 through 47 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with 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,

A handwritten signature in black ink that reads "Doug Ringler".

Doug Ringler
Auditor General
December 30, 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, 2015. 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 2015 by \$12.0 billion (reported as Net Position Restricted for Pension Benefits and Other Postemployment Benefits (OPEB)). Net position is restricted to meet future benefit payments.
- Additions for the year were \$1.8 billion, which are comprised primarily of contributions of \$1.5 billion and investment gains of \$250.6 million.
- Deductions increased over the prior year from \$1.7 billion to \$1.8 billion or 2.9%. This increase is the result of increased pension and OPEB benefit payments.

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 45) the Schedule of Funding Progress – Other Postemployment Benefits Plan (page 44) and Schedules of Contributions (page 46) 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, 2015 were \$12.8 billion and were mostly comprised of cash, investments, and contributions due from employers. Total assets decreased \$69.1 million or .5% between fiscal years 2014 and 2015 due primarily to a decrease in net investment gains.

Total liabilities as of September 30, 2015, were \$778.6 million and were comprised of warrants outstanding, accounts payable, and obligations under securities lending. Total liabilities decreased \$70.3 million or 8.3% between fiscal years 2014 and 2015 due primarily to decreased obligations under securities lending.

System assets exceeded its liabilities at the close of fiscal year 2015 by \$12.0 billion. Total net position restricted for pension and OPEB increased \$1.2 million or 0% between fiscal years 2014 and 2015 due primarily to an increase in investments.

| Plan Fiduciary Net Position (in thousands) | | | |
|--|----------------------|----------------------|------------------------|
| | 2015 | 2014 | Increase (Decrease) |
| Assets | | | |
| Equity in common cash | \$ 5,396 | \$ 134,291 | (96.0) % |
| Receivables | 171,440 | 154,064 | 11.3 |
| Investments | 11,923,319 | 11,801,653 | 1.0 |
| Securities lending collateral | 712,497 | 791,755 | (10.0) |
| Total Assets | 12,812,652 | 12,881,763 | (0.5) |
| Liabilities | | | |
| Warrants outstanding | 33 | 34 | (2.9) |
| Unearned Revenue | 12 | 9 | 33.3 |
| Accounts payable and other accrued liabilities | 29,240 | 29,531 | (1.0) |
| Amounts due from other funds | 36,948 | | 100.0 |
| Obligations under securities lending | 712,391 | 819,365 | (13.1) |
| Total Liabilities | 778,623 | 848,938 | (8.3) |
| Net Position Restricted for Pension Benefits and OPEB | \$ 12,034,029 | \$ 12,032,825 | 0.0 % |

FINANCIAL SECTION

Management's Discussion and Analysis (continued)

ADDITIONS TO PLAN FIDUCIARY 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 2015 totaled \$1.8 billion.

Total additions for fiscal year 2015 decreased \$1.4 billion from those of fiscal year 2014 due primarily to decrease in net investment income. Total employer contributions increased between fiscal years 2014 and 2015 by \$7.8 million or .6% due to an increase in contribution rates. Member contributions decreased between fiscal years 2014 and 2015 by \$3.6 million or 4.1%. Net investment income decreased between fiscal years 2014 and 2015 by \$1.4 billion or 84.8%. The Investment Section of this report reviews the results of investment activity for fiscal year 2015.

DEDUCTIONS FROM PLAN FIDUCIARY 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 2015 were \$1.8 billion, an increase of 2.9% over fiscal year 2014 deductions.

Payments for health care benefits for members and beneficiaries increased by \$9.0 million or 1.8% from \$491.6 million to \$500.6 million during the fiscal year. The payment of pension benefits increased by \$42.5 million or 3.5% between fiscal years 2014 and 2015. In fiscal year 2015, pension benefit expenses increased due to an increase in benefit payments to retirees and an increase of 838 retirees. Refunds decreased by \$13 thousand or 7.4% between fiscal years 2014 and 2015. Administrative and other expenses decreased by \$1.5 million from \$32.5 million in fiscal year 2014 to \$31.0 million in fiscal year 2015.

Changes in Plan Fiduciary Net Position (in thousands)

| | 2015 | 2014 | Increase (Decrease) |
|---|----------------------|----------------------|------------------------|
| Additions | | | |
| Member contributions | \$ 84,376 | \$ 87,969 | (4.1) % |
| Employer contributions | 1,413,856 | 1,406,039 | 0.6 |
| Other governmental contributions | 49,292 | 54,945 | (10.3) |
| Net investment income | 250,622 | 1,644,891 | (84.8) |
| Transfers from other systems | 1 | | 0.0 |
| Miscellaneous income | 166 | 102 | 62.7 |
| Total Additions | 1,798,313 | 3,193,946 | (43.7) |
| Deductions | | | |
| Pension benefits | 1,265,335 | 1,222,881 | 3.5 |
| Health care benefits | 500,630 | 491,569 | 1.8 |
| Refund of contributions | 162 | 175 | (7.4) |
| Administrative and other expenses | 30,983 | 32,467 | (4.6) |
| Total Deductions | 1,797,109 | 1,747,092 | 2.9 |
| Net Increase (decrease) in Net Position | 1,203 | 1,446,854 | (99.9) |
| Net Position Restricted for Pension Benefits and OPEB- Beginning of Year | 12,032,825 | 10,585,971 | 13.7 |
| Net Position Restricted for Pension Benefits and OPEB- End of Year | \$ 12,034,029 | \$ 12,032,825 | 0.0 % |

FINANCIAL SECTION

Management's Discussion and Analysis (continued)

RETIREMENT SYSTEM AS A WHOLE

The System's overall Fiduciary Net Position experienced a decrease in fiscal year 2015. The System's rate of return for the Pension Plan investment decreased an overall 12.9% from a 15.5% in fiscal year 2014 to a 2.6% return during fiscal year 2015. The System's rate of return for the OPEB Plan's investments decreased an overall 12.6% from a 15.1% return in fiscal year 2014 to at 2.5% return during fiscal year 2015. 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, 2015 (in thousands)

| | Pension Plan | OPEB Plan | Total |
|---|----------------------|---------------------|----------------------|
| Assets: | | | |
| Equity in common cash | \$ 5,395 | \$ 1 | \$ 5,396 |
| Receivables: | | | |
| Amounts due from members | 553 | | 553 |
| Amounts due from employer | 43,699 | 32,357 | 76,056 |
| Amounts due from federal agencies | | 29,553 | 29,553 |
| Amounts due from other funds | 36,968 | | 36,968 |
| Amounts due from others | | 14,059 | 14,059 |
| Amounts due from employers long term | 12,824 | | 12,824 |
| Interest and dividends | 1,289 | 137 | 1,426 |
| Total receivables | 95,333 | 76,107 | 171,440 |
| Investments: | | | |
| Short term investment pools | 438,501 | 48,939 | 487,440 |
| Fixed income pools | 1,300,083 | 158,093 | 1,458,176 |
| Domestic equity pools | 2,978,256 | 363,446 | 3,341,702 |
| Real estate and infrastructure pools | 1,077,649 | 131,475 | 1,209,124 |
| Private equity pools | 1,797,407 | 219,281 | 2,016,688 |
| International equity pools | 1,471,204 | 179,450 | 1,650,654 |
| Absolute return pools | 1,568,401 | 191,133 | 1,759,534 |
| Total investments | 10,631,502 | 1,291,817 | 11,923,319 |
| Security lending collateral | 635,301 | 77,196 | 712,497 |
| Total assets | 11,367,531 | 1,445,121 | 12,812,652 |
| Liabilities: | | | |
| Warrants outstanding | 32 | | 32 |
| Unearned Revenue | | 12 | 12 |
| Accounts payable and other accrued liabilities | 374 | 28,866 | 29,240 |
| Amount due to other funds | | 36,948 | 36,948 |
| Obligations under securities lending | 635,207 | 77,184 | 712,391 |
| Total liabilities | 635,613 | 143,010 | 778,623 |
| Net Position Restricted for Pension Benefits and OPEB: | \$ 10,731,918 | \$ 1,302,111 | \$ 12,034,029 |

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, 2015 (in thousands)

| | Pension Plan | OPEB Plan | Total |
|---|-----------------|--------------|---------------|
| Additions: | | | |
| Contributions: | | | |
| Member contributions | \$ 46,688 | \$ 37,688 | \$ 84,376 |
| Employer contributions | 749,487 | 664,369 | 1,413,856 |
| Other governmental contributions | | 49,292 | 49,292 |
| Total contributions | 796,176 | 751,349 | 1,547,524 |
| Investment income (loss): | | | |
| Net increase (decrease) | | | |
| in fair value of investments | 18,502 | (5,001) | 13,501 |
| Interest, dividends, and other | 233,379 | 25,032 | 258,411 |
| Investment expenses: | | | |
| Real estate operating expenses | (218) | (24) | (242) |
| Other investment expenses | (31,826) | (3,353) | (35,179) |
| Securities lending activities: | | | |
| Securities lending income | 18,118 | 2,040 | 20,158 |
| Securities lending expenses | (5,367) | (660) | (6,027) |
| Net investment income (loss) | 232,588 | 18,034 | 250,622 |
| Transfer from other system | 1 | | 1 |
| Miscellaneous income | 54 | 111 | 166 |
| Total additions | 1,028,819 | 769,494 | 1,798,313 |
| Deductions: | | | |
| Benefits paid to plan members and beneficiaries: | | | |
| Retirement benefits | 1,265,335 | | 1,265,335 |
| Health benefits | | 453,618 | 453,618 |
| Dental/vision benefits | | 42,084 | 42,084 |
| Personal health care | | 4,894 | 4,894 |
| Health reimbursement account | | 34 | 34 |
| Refunds of contributions | 144 | 17 | 162 |
| Administrative and other expenses | 6,228 | 24,755 | 30,983 |
| Total deductions | 1,271,707 | 525,402 | 1,797,109 |
| Net Increase (Decrease) in Net Position | (242,888) | 244,092 | 1,203 |
| Net Position Restricted for Pension Benefits and OPEB: | | | |
| Beginning of Year | 10,974,806 | 1,058,019 | 12,032,825 |
| End of Year | \$ 10,731,918 | \$ 1,302,111 | \$ 12,034,029 |

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

FINANCIAL SECTION

Notes to Basic Financial Statements September 30, 2015

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, 2015, the System's membership consisted of the following:

| | |
|---|----------------------|
| Inactive plan members or their beneficiaries currently receiving benefits | |
| Regular benefits | 47,923 |
| Survivor benefits | 7,063 |
| Disability benefits | 3,467 |
| Total | <u>58,453</u> |
| Inactive plan members entitled to but not yet receiving benefits | |
| | <u>4,215</u> |
| Active plan members: | |
| Vested | 13,469 |
| Non-vested | 326 |
| Total | <u>13,795</u> |
| Total plan members | <u><u>76,463</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:

| | |
|---|--------|
| Health, Dental, and Vision Plan | |
| Eligible participants | 57,265 |
| Participants receiving benefits: | |
| Health | 50,498 |
| Dental | 51,269 |
| Vision | 51,145 |
| Defined Contribution participants receiving benefits: | |
| Health | 866 |
| Dental | 916 |
| Vision | 902 |

FINANCIAL SECTION

Notes to Basic Financial Statements (continued)

BENEFIT PROVISIONS - PENSION

Introduction

Benefit provisions of the defined benefit (DB) 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%. 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:

Health, Dental and Vision Plan

| | |
|---|------------|
| Eligible Participants | 57,265 |
| Participants receiving benefits: | |
| Health | 50,498 |
| Dental | 51,269 |
| Vision | 51,145 |
| Defined Contribution participants receiving benefits: | |
| Health | 866 |
| Dental | 916 |
| Vision | 902 |
| Expenses for the year (in thousands) | \$ 525,402 |
| Employer payroll contribution rate | 22.76% |

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 45.

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, 2015, the balance in this reserve was \$258.3 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, 2015, the balance in this reserve was \$543 thousand

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, 2015, the balance in this reserve was \$12.8 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, 2015, the net balance of this reserve was \$(2.3) billion.

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, 2015 the balance in this reserve was \$1.3 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:

| | 2015 |
|-----------------------|----------------|
| | (in thousands) |
| Building Rentals | \$ 159 |
| Technological Support | 1,873 |
| Attorney General | 291 |
| Investment Services | 3,458 |
| Personnel Services | 2,583 |

FINANCIAL SECTION

Notes to Basic Financial Statements (continued)

Cash - On September 30, 2015, the System had \$5.4 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. Revenue from these activities amounted to \$15.7 thousand for the year ended September 30, 2015.

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, 2015 valuation will be amortized over a 21 year period. The schedule below summarizes pension contribution rates in effect for fiscal year 2015.

| <u>Benefit Structure</u> | <u>Member</u> | <u>Employer</u> |
|--------------------------|---------------|-----------------|
| Defined Benefit* | 0.0 - 4.0 % | 27.46 - 31.40 % |
| Defined Contribution | 0.0 | 24.19 |

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

Actual employer contributions for other postemployment benefits (OPEB) were \$663.1 million for fiscal year 2015, representing 23.21% of annual covered payroll for the year ended September 30, 2014. The fiscal year 2015 annual covered payroll is not yet available. Required employer contributions based on previous year actuarial valuations for OPEB included:

1. \$97.5 million for fiscal year 2015 for the normal cost of OPEB representing 3.4% (before reconciliation) of annual covered payroll for fiscal years 2014.
2. \$547.7 million for fiscal year 2015 for amortization of unfunded actuarial accrued liability representing 19.2% (before reconciliation) of annual covered payroll for fiscal years 2014.

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, 2015, there were 2071 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 8.7 years for 2015. The short-term receivable was \$3.2 million and the discounted long-term receivable was \$12.8 million at September 30, 2015.

Funded Status – Other Postemployment Benefits

Participating employers are required to contribute at an actuarially determined rate for OPEB. For fiscal year 2014, the actuarial accrued liability (AAL) for OPEB was \$8.7 billion, and the actuarial value of assets was \$1.1 billion, resulting in an unfunded actuarial accrued liability (UAAL) of \$7.7 billion and a funded ratio of 12.1%. 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 269.2%.

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 | \$ | 16,234,303 |
| Plan Fiduciary Net Position | | 10,731,762 |
| Net Pension Liability | \$ | <u>5,502,541</u> |
| | | |
| Plan Fiduciary the Net Position as a Percentage of Total Pension Liability | | 66.11 % |
| Net Pension Liability as a percentage of Covered Payroll | | 581.06 % |
| Total Covered Payroll | \$ | 946,977 |

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, 2015, are summarized in the following table:

| Asset Allocation | | |
|------------------------------------|--------------------------|--|
| Asset Class | Target Allocation | Long Term Expected Real Rate of Return* |
| Domestic Equity Pools | 28.0 % | 5.9 % |
| Private Equity Pools | 18.0 | 9.2 |
| International Equity | 16.0 | 7.2 |
| Fixed Income Pools | 10.5 | 0.9 |
| Real Estate & Infrastructure Pools | 10.0 | 4.3 |
| Absolute Return Pools | 15.5 | 6.0 |
| Short Term Investment Pools | 2.0 | 0.0 |
| TOTAL | 100.0 % | |

* Long-term Rate of Returns are net of administrative expenses and 2.1% inflation

Rate of Return

For the year ended September 30, 2015, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 1.01%. 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:

| | 1% Decrease 7.0% | Current Discount 8.0% | 1% Increase 9.0% |
|-------------------------------|-----------------------------|----------------------------------|-----------------------------|
| Net Pension Liability/(Asset) | \$7,031,822 | \$5,502,541 | \$4,184,825 |

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, 2015, is based on the results of an actuarial valuation date of September 30, 2014, 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 | 9/30/2014 |
| Actuarial Cost Method | Entry Age, Normal |
| Amortization Method - OPEB | Level Percent of Payroll, Closed |
| Remaining Amortization Period - OPEB ¹ | 22 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% |
| 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 2015 using projection 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. |
| Other Assumptions OPEB only: ² | |
| 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. |

¹ 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.

² 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 Employee Retirement System Investment Act, Public Act 314 of 1965, as amended. The Public Employee 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 private equity 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, 2015, in their respective investment pool's fair value. Derivative net increase and 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, 2015, under "Investment income (loss)", in "Net increase (decrease) in fair value of investments". Bond interest, swap payments, and dividends are reported under "Investment income (loss)", in "Interest, dividends, and other".

Derivative Investment Table as of September 30, 2015 (in millions):

| Investment and Investment Type | Percentage of Fair Value | Notional Value | Investments At Fair Value | Net Increase (Decrease) in Fair Value | Investment Income | Fair Value Subject to Credit Risk |
|-------------------------------------|--------------------------------|-------------------|------------------------------|--|----------------------|---|
| U.S. Treasury Bond Future Contracts | | | | | | |
| Fixed Income Investments | 0.0% | \$ 1.3 | | \$ (0.1) | | |
| Option Contracts | | | | | | |
| Equity Investments | 0.0% | 41.2 | \$ 0.1 | (0.9) | | |
| Swap Agreements | | | | | | |
| International Equity Investments | 1.9% | 268.3 | 221.4 | (11.8) | \$ (0.7) | \$ 7.1 |
| Swap Agreements | | | | | | |
| Equity Investments | 0.0% | 271.8 | (5.5) | (11.6) | 3.8 | |

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-two 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 2015 to September 2016. 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. The book value represents the cost of the notes and other investments. The current value represents the current value of the

FINANCIAL SECTION

Notes to Basic Financial Statements (continued)

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 November 2015 to July 2016. 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.

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 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.

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.

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 or 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, 2015, such assets had an average weighted maturity to next reset of 2.8 years and an average weighted maturity of 12.0 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, 2015, the System had no credit risk exposure to borrowers. The cash received for securities on loan for the System as of September 30, 2015 was \$712,391,283. The fair value of assets held in the dedicated collateral account at the custodian for the System as of September 30, 2015 was \$712,497,214. The carrying amount, which is the fair value of securities on loan for the System as of September 30, 2015 was \$700,681,460.

FINANCIAL SECTION

Notes to Basic Financial Statements (continued)

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. At September 30, 2015, 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, 2015

| Investment Type | Fair Value | S&P | Fair Value | Moody's |
|--------------------------------------|--------------------|-----|--------------------|---------|
| Short Term | \$ 530,733 | A-1 | \$ 530,733 | P-1 |
| Government Securities | | | | |
| U.S. Agencies- Sponsored | 35,203 | AAA | 35,203 | Aaa |
| | | AA | | Aa |
| Corporate Bonds & Notes | | | | |
| | 27,455 | AAA | 44,735 | Aaa |
| | 80,708 | AA | 48,583 | Aa |
| | 321,539 | A | 272,562 | A |
| | 299,320 | BBB | 371,130 | Baa |
| | 79,046 | BB | 85,689 | Ba |
| | 94,715 | B | 107,996 | B |
| | 26,659 | CCC | 31,627 | CAA |
| | 2,889 | CC | 14,538 | Ca |
| | 21 | C | 622 | C |
| | 11,023 | D | | D |
| | 119,363 | NR | 85,256 | NR |
| International * | | | | |
| | 35,088 | AA | 41,106 | Aa |
| | 80,938 | A | 72,906 | A |
| | 51,159 | BBB | 64,227 | Baa |
| | 20,890 | NR | 9,836 | NR |
| Securities Lending Collateral | | | | |
| Short Term | | | | |
| | 19,465 | AAA | 59,870 | Aaa |
| | 60,608 | AA | 20,203 | Aa |
| | | BB | 611,466 | Ba |
| | 20,958 | CCC | 20,958 | Caa |
| | | CC | | Ca |
| | 611,466 | NR | | NR |
| Total | <u>\$2,529,246</u> | | <u>\$2,529,246</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 had a credit rating of A+ at September 30, 2015. As of September 30, 2015, 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, 2015, there were no investments in any single issuer that accounted for more than 5% of the System's assets. The System held one investment that exceeded the 5% cap in obligations of any one issuer. The System is aware of the breach and, in accordance with MCL 38.1133(3)(g), is developing a prudent plan for reallocating assets to comply with the prescribed limitation.

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, 2015, the fair value of the System's prime commercial paper was \$530.7 million with the weighted average maturity of 12 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, 2015

| | Fair Value | Effective Duration in Years |
|----------------------------|---------------------|-----------------------------------|
| Government | | |
| U. S. Treasury | \$ 365,359 | 3.9 |
| U. S. Agencies - Backed | 96,101 | 5.1 |
| U. S. Agencies - Sponsored | 35,203 | 2.1 |
| Corporate | 1,062,739 | 4.6 |
| International* | | |
| Corporate | 188,075 | 0.2 |
| Total | <u>\$ 1,747,476</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, 2015, the total amount of foreign investment subject to foreign currency risk was \$1,924.2 million, which amounted to 16.1% of total investments (exclusive of securities lending collateral) of the System.

FINANCIAL SECTION

Notes to Basic Financial Statements (continued)

Foreign Currency Risk
(in thousands)
As of September 30, 2015

| Region | Country | Currency | Private Equity, Real Estate & Infrastructure Fair Value in US \$ | Equity Fair Value in US \$ | Fixed Income Fair Value in US \$ | International* & Absolute Return Fair Value in US \$ |
|-------------------------|----------------|----------|---|-------------------------------|-------------------------------------|--|
| <u>AMERICA</u> | | | | | | |
| | Canada | Dollar | | \$ 759 | | \$ (495) |
| | Mexico | Peso | | | \$ 28,504 | 1,096 |
| <u>CARIBBEAN</u> | | | | | | |
| | Cayman Islands | Dollar | | 4,760 | | 8,664 |
| <u>EUROPE</u> | | | | | | |
| | European Union | Euro | \$ 142,460 | 3,641 | | 9,596 |
| | Switzerland | Franc | | 588 | | 2,484 |
| | Sweden | Krona | | 99 | | 2,096 |
| | Denmark | Krone | | | | 832 |
| | Norway | Krone | | 86 | | |
| | U.K. | Sterling | 2,747 | 16,191 | | 4,463 |
| <u>PACIFIC</u> | | | | | | |
| | Australia | Dollar | | | | (525) |
| | China | Renminbi | 11,381 | | | |
| | Hong Kong | Dollar | 12,311 | (1) | | (2,118) |
| | Japan | Yen | | | | (2,247) |
| | New Zealand | Dollar | | | | (208) |
| | Philippines | Peso | | | 13,298 | |
| | Singapore | Dollar | | | | 1,724 |
| | South Korea | Won | | | | 889 |
| <u>AFRICA</u> | | | | | | |
| | South Africa | Rand | | 129 | | |
| | Liberia | Dollar | | 263 | | |
| <u>OTHER</u> | | | | | | |
| | Various | | 258,321 | 25,364 | 43,900 | 1,333,148 |
| | Total | | \$ 427,220 | \$ 51,879 | \$ 85,702 | \$ 1,359,399 |

*International includes derivatives whose 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 2015 through September 2016, with an average maturity of .6 years.

FINANCIAL SECTION

Notes to Basic Financial Statements (continued)

NOTE 6 - 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.

NOTE 7 - SUBSEQUENT EVENTS

On October 27, 2015, the Governor signed Executive Order No. 2015-13 creating a new State of Michigan Retirement Board (Board). Effective January 1, 2016, under the supervision of the Department of Technology Management and Budget, through its Office of Retirement Services, the functions, duties, responsibilities, and rule-making authority of the State Employees' Retirement System Board, the Judges Retirement Board, and the Military Retirement Provisions, respectively have been transferred to the newly established Board.

Also included in this executive order, the newly established Board shall administer the Military Retirement Provisions as part of a qualified pension plan created in trust under Section 401 of the Internal Revenue Code, 26 USC 401, in accordance with State Employees' Retirement Act.

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 ¹ | \$ 344 | 8,757 | 8,413 | 3.9 | 2,895 | 290.6 |
| 2013 | 663 | 8,199 | 7,536 | 8.1 | 2,881 | 261.6 |
| 2014 ¹ | 1,058 | 8,749 | 7,691 | 12.1 | 2,857 | 269.2 |

¹ Revised actuarial assumptions

FINANCIAL SECTION

Required Supplementary Information (continued)

Schedule of Changes in Net Pension Liability (in thousands)

| | Fiscal Year 2014 | Fiscal Year 2015 |
|---|----------------------|----------------------|
| Total Pension Liability | | |
| Service Cost | \$ 84,040 | \$ 80,413 |
| Interest | 1,206,258 | 1,242,353 |
| Changes of benefit and actual experience | | |
| Difference between expected and actual experience | | 55,072 |
| Changes of Assumption | 406,962 | |
| Benefit payments, in including refunds of member contributions | (1,223,033) | (1,265,480) |
| Net Change in Total Pension Liability | \$ 474,227 | \$ 112,358 |
| Total Pension Liability - Beginning | 15,647,718 | 16,121,945 |
| Total Pension Liability - Ending (a) | \$ 16,121,945 | \$ 16,234,303 |
| Plan Fiduciary Net Position | | |
| Contributions - Employer | \$ 705,100 | \$ 749,332 |
| Contributions - Member | 47,527 | 49,688 |
| Net Investment Income | 1,529,626 | 232,643 |
| Benefit Payments, including refunds of member contributions | (1,223,033) | (1,265,479) |
| Pension Plan Administrative Expense | (6,931) | (6,228) |
| Net Changes in Plan Fiduciary Net Pension | 1,052,290 | (240,044) |
| Plan Fiduciary Net Position - Beginning | 9,922,516 | 10,974,806 |
| Plan Fiduciary Net Position - Ending (b) | \$ 10,974,806 | \$ 10,731,762 |
| Net Pension Liability (assets) - Ending (a) - (b) | 5,147,139 | 5,502,541 |
| Plan Fiduciary Net Position as a Percentage of the Total Pension Liability | 68.07% | 66.11% |
| Covered Employee Payroll | \$ 1,006,633 | \$ 946,977 |
| Net Pension Liability as a Percentage of Covered Employee Payroll | 511.32% | 581.06% |

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 % |
| 2015 | 16,234,303 | 10,731,762 | 5,502,541 | 66.11 | 946,977 | 581.06 |

FINANCIAL SECTION

Required Supplementary Information (continued)

Schedules of Contributions

| Fiscal Year Ended Sept. 30 | Pension Benefits (in thousands) | | | | Actual Contributions as a % of Covered Payroll |
|----------------------------------|---|------------------------------------|--|--------------------|---|
| | Annual Determined Contribution (ARC) | Actual Employer Contribution | Contribution Deficiency (Excess) | Covered Payroll | |
| 2006 | \$ 366,651 | \$ 270,705 | \$ 95,945 | \$ 1,847,653 | 14.7 % |
| 2007 | 316,138 ² | 150,859 ¹ | 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 ³ | 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 |
| 2015 ³ | 654,515 | 749,332 | (94,817) | 946,977 | 79.1 |

Other Postemployment Benefits (in thousands)

| Fiscal Year Ended Sept. 30 | Annual Required Contribution (ARC) | Actual Employer Contribution | Other Governmental Contribution | Percentage Contributed |
|----------------------------------|---|------------------------------------|---------------------------------------|---------------------------|
| 2007 | \$ 898,717 | \$ 359,375 ¹ | | 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 ³ | 678,650 | 688,349 | 41,514 | 107.5 |
| 2014 | 619,512 | 700,938 | 54,945 | 122.0 |
| 2015 | 645,129 | 644,369 | 49,292 | 107.5 |

¹ 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.

² 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.

³ Revised actuarial assumptions.

Schedule of Investment Returns

| Fiscal Year | Annual Return ¹ |
|-------------|-------------------------------|
| 2014 | 14.01% |
| 2015 | 1.01 |

¹ 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 ninth year the System is reporting other postemployment benefits in accordance with GASB Statement No. 43, nine 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.

These schedules are required to show information for ten years, additional years will be displayed as it becomes available. 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.

| | |
|-------------------------------|---|
| Amortization Method | Level Dollar, Closed |
| Remaining Amortization Period | 22 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 2015 using projection 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. |

FINANCIAL SECTION

Supporting Schedules

**Summary Schedule of
Pension Plan Administrative and Other Expenses
For Fiscal Year Ended September 30, 2015
(in thousands)**

Personnel Services:

| | |
|--------------------------------|--------------|
| Staff Salaries | \$ 1,549 |
| Retirement and Social Security | 775 |
| Other Fringe Benefits | 259 |
| Total | 2,583 |

Professional Services:

| | |
|------------------|--------------|
| Accounting | 272 |
| Actuarial | 163 |
| Attorney General | 291 |
| Audit | 62 |
| Consulting | 20 |
| Medical | 210 |
| Total | 1,018 |

Building and Equipment:

| | |
|--|------------|
| Building Rentals | 159 |
| Equipment Purchase, Maintenance, and Rentals | 74 |
| Total | 233 |

Miscellaneous:

| | |
|-------------------------------|--------------|
| Travel and Board Meetings | 8 |
| Office Supplies | 10 |
| Postage, Telephone, and Other | 447 |
| Printing | 57 |
| Technological Support | 1,873 |
| Total | 2,394 |

| | |
|--|-----------------|
| Total Administrative and Other Expenses | \$ 6,228 |
|--|-----------------|

**Summary Schedule of
OPEB Plan Administrative and Other Expenses
For Fiscal Year Ended September 30, 2015
(in thousands)**

| | |
|--|------------------|
| Staff Salaries | \$ 472 |
| Health Fees | 22,161 |
| Dental Fees | 1,890 |
| Vision Fees | 232 |
| Total Administrative and Other Expenses | \$ 24,755 |

The OPEB plan administrative expenses of \$24,754,938 in fiscal year 2015 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, 2015 (in thousands)

| | | |
|--|-----------|---------------|
| Real Estate Operating Expenses | \$ | 242 |
| Securities Lending Expenses | | 6,027 |
| Other Investment Expenses ¹ | | |
| ORS-Investment Expenses ² | | 3,458 |
| Custody Fees | | 253 |
| Management Fees | | 30,720 |
| Research Fees | | 748 |
| | | <hr/> |
| Total Investment Expenses | \$ | 41,448 |
| | | <hr/> |

¹ Refer to the Investment Section for fees paid to investment professionals

² Does not exclude Treasury Civil Service fees of \$46,059 for fiscal year 2015
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, 2015 (in thousands)

| | | |
|-----------------------|-----------|--------------|
| Accounting | \$ | 272 |
| Actuary | | 163 |
| Attorney General | | 291 |
| Independent Auditors | | 62 |
| Consulting | | 20 |
| Medical Advisors | | 210 |
| | | <hr/> |
| Total Payments | \$ | 1,018 |
| | | <hr/> |

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, 2015 (in thousands)

| | Employee Contributions | Employer Contributions | Retired Benefit Payments | Undistributed Investment Income | OPEB | Total |
|--|---------------------------|---------------------------|-----------------------------|------------------------------------|---------------------|----------------------|
| Additions: | | | | | | |
| Contributions | | | | | | |
| Member contributions | \$ 46,688 | | | | \$ 37,688 | \$ 84,376 |
| Employer contributions | | \$ 749,487 | | | 664,369 | 1,413,856 |
| Other governmental contributions | | | | | 49,292 | 49,292 |
| Total contributions | <u>46,688</u> | <u>749,487</u> | | | <u>751,348</u> | <u>1,547,524</u> |
| Investment income (loss): | | | | | | |
| Net increase (decrease) | | | | | | |
| in fair value of investments | | | | \$ 18,502 | (5,001) | 13,501 |
| Interest, dividends, and other | | | | 233,379 | 25,032 | 258,411 |
| Miscellaneous | | | | | | |
| Real estate operating expenses | | | | (218) | (24) | (242) |
| Other investment expenses | | | | (31,826) | (3,352) | (35,179) |
| Securities lending activities: | | | | | | |
| Securities lending income | | | | 18,118 | 2,040 | 20,157 |
| Securities lending expenses | | | | (5,367) | (660) | (6,027) |
| Net investment income (loss) | | | | <u>232,588</u> | <u>18,034</u> | <u>250,622</u> |
| Transfer to other system | 1 | | | | | 1 |
| Miscellaneous income | | | \$ 53 | 1 | 111 | 166 |
| Total additions | <u>46,689</u> | <u>749,487</u> | <u>53</u> | <u>232,589</u> | <u>769,494</u> | <u>1,798,313</u> |
| Deductions: | | | | | | |
| Benefits paid to plan members and beneficiaries: | | | | | | |
| Retirement benefits | | | 1,265,335 | | | 1,265,335 |
| Health benefits | | | | | 453,618 | 453,618 |
| Dental/vision benefits | | | | | 42,084 | 42,084 |
| Personal health care | | | | | 4,894 | 4,894 |
| Health reimbursement account | | | | | 34 | 34 |
| Refunds of contributions | 91 | 50 | 3 | | 17 | 162 |
| Administrative and other expenses | | | | 6,228 | 24,755 | 30,983 |
| Total deductions | <u>91</u> | <u>50</u> | <u>1,265,338</u> | <u>6,228</u> | <u>525,402</u> | <u>1,797,109</u> |
| Net Increase (Decrease) before other changes | <u>46,598</u> | <u>749,437</u> | <u>(1,265,285)</u> | <u>226,362</u> | <u>244,092</u> | <u>1,203</u> |
| Other Changes in Net Position: | | | | | | |
| Interest allocation | 5,960 | | 1,844,843 | (1,850,803) | | |
| Transfers upon retirement | (31,775) | | 31,775 | | | |
| Transfers of employer share | | (247,036) | 247,036 | | | |
| Total other changes in net position | <u>(25,815)</u> | <u>(247,036)</u> | <u>2,123,654</u> | <u>(1,850,803)</u> | | |
| Net Increase (Decrease) in Net Position | <u>20,783</u> | <u>502,402</u> | <u>858,369</u> | <u>(1,624,442)</u> | <u>244,092</u> | <u>1,203</u> |
| Net Position Restricted for Pension Benefit and OPEB: | | | | | | |
| Beginning of Year | 237,507 | (501,858) | 11,902,213 | (663,056) | 1,058,019 | 12,032,825 |
| End of Year | <u>\$ 258,290</u> | <u>\$ 543</u> | <u>\$ 12,760,582</u> | <u>\$ (2,287,498)</u> | <u>\$ 1,302,111</u> | <u>\$ 12,034,029</u> |

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, 2015, members of the Committee were as follows: James B. Nicholson (public member), L. Erik Lundberg, CFA (public member), Reginald G. Sanders (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 9/30/15 Actual %</u> | <u>Five Year Target %</u> |
|--------------------------------------|-----------------------------------|-------------------------------|
| Domestic Equity Pools | 28.0 % | 28.0 % |
| International Equity Pools | 13.8 | 16.0 |
| Private Equity Pools | 16.9 | 18.0 |
| Real Estate and Infrastructure Pools | 10.1 | 10.0 |
| Fixed Income Pools | 12.2 | 10.5 |
| Absolute Return Pools | 14.8 | 15.5 |
| Short Term Investment Pools | <u>4.2</u> | <u>2.0</u> |
| TOTAL | <u>100.0</u> % | <u>100.0</u> % |

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, 2015, the total System's rate of return was 2.6% for the Pension Plan and 2.5% 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, 2015 were: 10%, 10%, and 7% respectively.

In the five years leading up to September 2015, the U.S. stock market had more than doubled in value. However, for fiscal year 2015, the market paused. The U.S. stock market returns were slightly negative, returning -0.3% including dividends. Returns in foreign stocks were worse, losing 11.7% in value. However, as interest rates fell, the price of bonds rose. The U.S. 10-year Treasury rate dropped to 2.0%, down from 2.5% the year before. Due to Federal Reserve policies, short-term investment returns continued to yield negligible returns.

The value of the U.S. dollar rose significantly over fiscal year 2015. On a trade-weighted basis, the dollar increased in value by more than 14%. Related to the dollar's strength, commodity prices across the board fell as well. The price of a barrel of crude oil, for example, fell by 50% to end September 2015 at around \$45 per barrel.

Despite the cool returns in the capital markets, the U.S. economy is doing fairly well. By the end of the fiscal year, real GDP was growing at a 2.7% year-over-year rate, and while partially due to the fall in commodity prices, headline inflation is virtually non-existent. The national unemployment rate is at 5.1%, its lowest level in over seven years.

INVESTMENT SECTION

Report on Investment Activity (continued)

The Federal Reserve Board has held down short-term interest rate to near zero for over six and a half years. At its September 2015 meeting, the Fed again voted to keep rates at these levels. However, it appears that the aggressive Fed policies that have been put in place may be slowly coming to an end. Barring a significant economic set-back, most Fed prognosticators expect the Fed to begin gradually increasing short-term rates to a more normal policy in the coming twelve months. Investment return calculations are prepared using a Time-Weighted rate of return.

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, 2015:

| | |
|---------|---------------------|
| Active | 57.3 % |
| Passive | <u>42.7</u> |
| Total | <u>100 %</u> |

| | |
|-----------|---------------------|
| Large Cap | 65.3 % |
| Multi Cap | 25.0 |
| Mid Cap | 7.2 |
| Small Cap | <u>2.5</u> |
| Total | <u>100 %</u> |

INVESTMENT SECTION

Report on Investment Activity (continued)

The System's Domestic Equity pools total rate of return was -0.8% for the Pension and OPEB Plans for fiscal year 2015. This compared with a negative 0.3% for the S&P 1500 Index.

At the close of fiscal year 2015, the Domestic Equity pools represented 28.0% of total investments. The following summarizes the System's 19.9% ownership share of the Domestic Equity pools at September 30, 2015:

Domestic Equity Pools (in thousands)

| | |
|----------------------------------|----------------------------|
| Short Term Pooled Investments | \$ 13,657 |
| Equities | 3,332,406 |
| Market Value of Equity Contracts | (9,047) |
| Settlement Principal Payable | (4,537) |
| Settlement Proceeds Receivable | 4,453 |
| Accrued Dividends | 4,770 |
| Total | <u>\$ 3,341,702</u> |

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 Depository 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, 2015:

| | |
|--------------|-----------------------|
| Active | 47.2 % |
| Passive | 52.8 |
| Total | <u>100.0 %</u> |

| | |
|--------------|-----------------------|
| Developed | 82.0 % |
| Emerging | 18.0 |
| Total | <u>100.0 %</u> |

The System's International Equity pools total rate of return was a negative 8.8% for fiscal year 2015. This compared with a negative 12.2% for the MSCI ACWI Ex US Net.

At the close of fiscal year 2015, the International Equity pools represented 13.8% of total investments. The following summarizes the System's 20.4% ownership share of the International Equity Pools at September 30, 2015:

International Equity Pools (in thousands)

| | |
|----------------------------------|----------------------------|
| Short Term Pooled Investments | \$ 50,970 |
| Equities | 1,424,447 |
| Fixed Income Securities | 188,075 |
| Market Value of Equity Contracts | (12,566) |
| Settlement Principal Payable | (734) |
| Accrued Dividends and Interest | 462 |
| Total | <u>\$ 1,650,654</u> |

Private Equity Pools

The Private Equity 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.

Private Equity Investments are investments in the private equity market, primarily through limited partnerships. The following summarizes the weightings of the pools as of September 30, 2015:

| | |
|-------------------------|-----------------------|
| Buyout Funds | 55.5 % |
| Special Situation Funds | 19.2 |
| Venture Capital Funds | 15.7 |
| Fund of Funds | 5.3 |
| Liquidation Portfolio | 2.7 |
| Mezzanine Funds | 1.6 |
| Total | <u>100.0 %</u> |

INVESTMENT SECTION

Report on Investment Activity (continued)

The Private Equity pools had a return of 11.7% for the Pension Plan for the fiscal year ended September 30, 2015, versus the benchmark of 10.6%.

At the close of fiscal year 2015, the Private Equity pools represented 16.9% of total investments. The following summarizes the System's 18.6% ownership share of the Private Equity pools at September 30, 2015:

Private Equity Pools (in thousands)

| | |
|--------------------------------|-----------------------------------|
| Short Term Pooled Investments | \$ 26,055 |
| Equities | 1,988,612 |
| Long Term Obligations | 1,307 |
| Settlement Proceeds Receivable | 626 |
| Accrued Interest | 88 |
| Total | <u><u>\$ 2,016,688</u></u> |

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.

| | |
|--------------------------------|------------------------------|
| Hotel | 15.2 |
| Commercial office buildings | 15.2 |
| Infrastructure | 9.8 |
| Industrial warehouse buildings | 5.5 |
| Retail shopping centers | 6.5 |
| For Rent Homes | 6.7 |
| For Sale Homes | 5.7 |
| Land | 2.2 |
| Short Term Investments | 2.3 |
| Total | <u><u>100.0 %</u></u> |

The Real Estate and Infrastructure pools generated a return of 11.1% for the Pension and OPEB Plans and 11.2% for the OPEB plan for fiscal year 2015. The two benchmark returns from the National Council of Real Estate Investment Fiduciaries: the National Property Blended Index (less 130 basis points) was 12.0% and the Open-End Diversified Core Equity Index was 13.9%.

INVESTMENT SECTION

Report on Investment Activity (continued)

At the close of fiscal year 2015, the Real Estate and Infrastructure pools represented 10.1% of total investments. The following summarizes the System's 20.2% ownership share of the Real Estate and Infrastructure pools at September 30, 2015:

Real Estate and Infrastructure Pools (in thousands)

| | |
|-------------------------------|---------------------|
| Short Term Pooled Investments | \$ 28,104 |
| Real Estate Equities | 1,063,749 |
| Infrastructure Equities | 117,271 |
| Total | \$ 1,209,124 |

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 3.0% for fiscal year 2015. This compared with 2.9% for the Barclays Aggregate Bond Index.

At the close of fiscal year 2015, the Fixed Income pools represented 12.2% of total investments. The following summarizes the System's 20.8% ownership share of the Fixed Income pools at September 30, 2015:

Fixed Income Pools (in thousands)

| | |
|-------------------------------|---------------------|
| Short Term Pooled Investments | \$ 21,001 |
| Fixed Income Securities | 1,430,199 |
| Accrued interest | 6,976 |
| Total | \$ 1,458,176 |

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 2.4% versus the benchmark's 1.9%.

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 7.3% versus the benchmark's 6.5%.

At the close of fiscal year 2015, the Absolute Return pools represented 14.8% of total investments. The following summarizes the System's 20.2% ownership share of the Absolute Return Strategies pool at September 30, 2015:

Absolute Return Pools (in thousands)

| | |
|--------------------------------|----------------------------|
| Short Term Pooled investments | \$ 58,372 |
| Equities | 1,680,374 |
| Long Term Obligations | 20,225 |
| Accrued Interest and Dividends | 563 |
| Total | <u>\$ 1,759,534</u> |

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 0.5% for the Pension plan and 0.4% for the OPEB plan 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

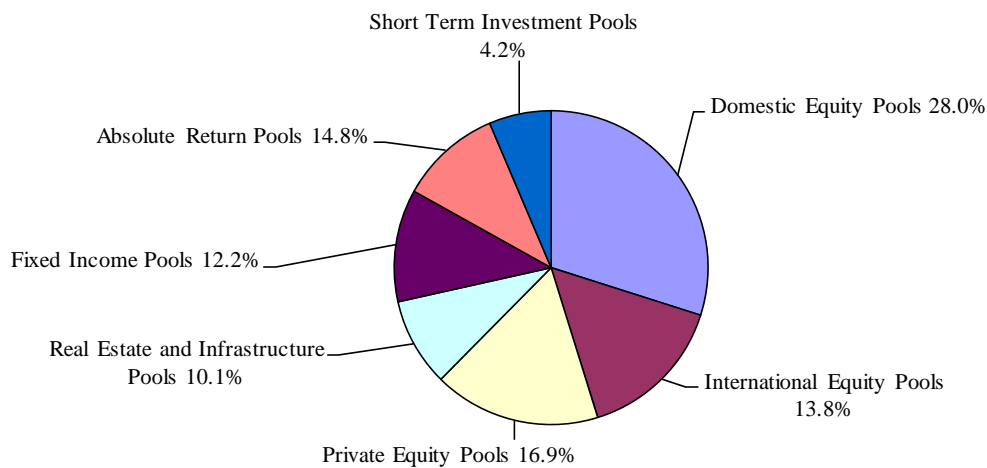
Report on Investment Activity (continued)

At the close of fiscal year 2015, the Short Term Investment pools represented 4.2% of total investments. The following summarizes the System's 5.0% ownership share of the Short Term Investment pools at September 30, 2015:

Short Term Investment Pools (in thousands)

| | |
|-------------------------------|-------------------------|
| Short Term Pooled Investments | \$ 309,376 |
| Fixed Income Securities | 183,077 |
| Accrued interest | 383 |
| Total | <u>\$492,836</u> |

Asset Allocation – Security Type Only



INVESTMENT SECTION

Report on Investment Activity (continued)

Pension Plan Investment Results for the Period Ending September 30, 2015

| Investment Category | Current Year | Annualized Rate of Return ¹ | | | |
|--|--------------|--|---------|----------|--|
| | | 3 Years | 5 Years | 10 Years | |
| Total Portfolio | 2.6 % | 10.0 % | 10.0 % | 6.6 % | |
| Domestic Equity Pools | (0.8) | 13.3 | 13.1 | 7.1 | |
| S&P 1500 Index | (0.3) | 12.5 | 13.3 | 7.0 | |
| International Equity Pools | (8.8) | 4.0 | 3.5 | 2.7 | |
| International Blended Benchmark ² | (12.2) | 2.6 | 2.2 | 1.8 | |
| Private Equity Pools | 11.7 | 17.2 | 16.8 | 13.4 | |
| Private Equity Blended Benchmark ³ | 10.6 | 20.4 | 20.3 | 11.9 | |
| Real Estate and Infrastructure Pools | 11.1 | 12.7 | 12.4 | 5.7 | |
| NCREIF Property Blended Index ⁴ | 12.0 | 10.5 | 11.1 | 6.6 | |
| Fixed Income Pools | 3.0 | 2.5 | 3.7 | 5.4 | |
| Barclays Aggregate Bond | 2.9 | 1.7 | 3.1 | 4.6 | |
| Absolute Return Pools | | | | | |
| Total Absolute Return | 2.4 | 7.2 | 5.7 | | |
| HFRI Fund of Fund Cons 1 month lag | 1.9 | 4.9 | 3.4 | | |
| Total Real Return and Opportunistic | 7.3 | 12.5 | 10.1 | | |
| Real Return and Opportunistic Benchmark ⁵ | 6.5 | 7.0 | 7.4 | | |
| Short Term Investment Pools | 0.5 | 0.4 | 0.3 | 1.1 | |
| 30 Day Treasury Bill | 0.0 | 0.0 | 0.0 | 1.2 | |

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

Report on Investment Activity (continued)

OPEB Investment Results for the Period Ending September 30, 2015

| <u>Investment Category</u> | <u>Current Year</u> | <u>Annualized Rate of Return¹</u> <u>3 Years</u> |
|--|---------------------|--|
| Total Portfolio | 2.5 % | 9.5 % |
| Domestic Equity Pools | (0.8) | 13.4 |
| S&P 1500 Index | (0.3) | 12.5 |
| International Equity Pools | (8.8) | 4.0 |
| International Blended Benchmark ² | (12.2) | 2.6 |
| Private Equity Pools | 11.7 | 17.2 |
| Private Equity Blended Benchmark ³ | 10.6 | 20.4 |
| Real Estate and Infrastructure Pools | 11.2 | 12.7 |
| NCREIF Property Blended Index ⁴ | 12.0 | 10.5 |
| Fixed Income Pools | 3.0 | 2.5 |
| Barclays Aggregate Bond | 2.9 | 1.7 |
| Absolute Return Pools | | |
| Total Absolute Return | 2.4 | 7.2 |
| HFRI Fund of Fund Cons 1 month lag | 1.9 | 4.9 |
| Total Real Return and Opportunistic | 7.3 | 12.5 |
| Real Return and Opportunistic Benchmark ⁵ | 6.5 | 7.0 |
| Short Term Investment Pools | 0.4 | 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 Held¹

Largest Stock Holdings (By Market Value) September 30, 2015

| Rank | Shares | Stocks | Market Value |
|------|-----------|-----------------------------|----------------|
| 1 | 1,148,610 | Apple Inc. | \$ 126,691,720 |
| 2 | 1,395,013 | Wells Fargo & Co | 71,633,930 |
| 3 | 1,215,836 | Aflac Inc. | 70,676,571 |
| 4 | 642,825 | Gilead Sciences Inc. | 63,119,024 |
| 5 | 696,102 | Union Pacific Corp | 61,542,380 |
| 6 | 431,883 | Home Depot Inc. | 49,878,154 |
| 7 | 1,117,960 | Verizon Communications Inc. | 48,642,451 |
| 8 | 1,057,750 | Microsoft Corp | 46,815,994 |
| 9 | 740,112 | JP Morgan Chase & Co. | 45,124,646 |
| 10 | 66,175 | Google Inc. | 42,243,886 |

Largest Bond Holdings (By Market Value)² September 30, 2015

| Rank | Par Amount | Description | Market Value |
|------|---------------|--|---------------|
| 1 | \$ 38,821,261 | US Treasury N/B 1.625% Due 07-31-2019 | \$ 39,487,473 |
| 2 | 33,927,792 | US Treasury N/B 2.125% Due 05-15-2025 | 34,131,901 |
| 3 | 24,885,424 | US Treasury N/B 2.125% Due 06-30-2022 | 25,533,490 |
| 4 | 20,963,163 | US Treasury N/B 2.000% Due 08-15-2025 | 20,852,351 |
| 5 | 19,908,339 | US Treasury N/B 1.625% Due 06-30-2019 | 20,260,100 |
| 6 | 19,908,339 | US Treasury N/B 1.000% Due 09-15-2017 | 20,048,573 |
| 7 | 20,058,045 | Barclays Bank PLC 1.005% FRN Due 01-22-2019 | 20,044,245 |
| 8 | 19,908,339 | US Treasury N/B 0.875% Due 10-15-2017 | 19,990,780 |
| 9 | 15,207,483 | TSY Infl IX N/B 0.125% Due 04-15-2019 | 15,155,610 |
| 10 | 12,636,568 | Suntrust Banks Inc. 0.9941% FRN Due 04-29-2019 | 12,447,475 |

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

2 Largest Bond Holdings are exclusive of securities lending collateral.

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.

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. 63.56% 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 \$3,503 thousand or eight and one tenth basis points (.081) 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 (in thousands) | Fees (in thousands) | Basis Points * |
|--------------------------------|---|--------------------------------|---------------------------|
| State Treasurer | \$ 4,346,881 | \$ 3,503 | 8.1 |
| Outside Advisors for | | | |
| Fixed Income | 527,903 | 1,887 | 35.7 |
| Absolute Return | 1,754,059 | 3,552 | 20.3 |
| International Equity | 1,344,044 | 2,814 | 20.9 |
| Domestic Equity | 730,015 | 1,972 | 27.0 |
| Private Equity | 2,016,688 | 14,432 | 71.6 |
| Real Estate and Infrastructure | 1,209,124 | 6,063 | 50.1 |
| Total | <u>\$ 11,928,714</u> | <u>\$ 34,223</u> | |

Other Investment Services Fees:

| | | |
|--------------------|---------------|----------|
| Assets in Custody | \$ 11,923,317 | \$ 1,001 |
| Securities on Loan | 700,681 | 1,950 |

* Private Equity 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, 2015 | | | | | | |
|---------------------------------------|--------------------------------------|---|-----------------------------|--------------------------|-----------------------------|-------------------|-------------------|
| | Actual | Actual | Average | Estimated | Estimated | Estimated | Estimated |
| | Commissions Paid ⁽¹⁾ | Number of Shares Traded ⁽¹⁾ | Commission Per Share | Trade Costs Per Share | Research Costs Per Share | Trade Costs | Research Costs |
| Investment Brokerage Firms: | | | | | | | |
| Banc Of America Securities LLC | \$ 6,035 | 163,611 | \$ 0.04 | \$ 0.01 | \$ 0.03 | \$ 1,636 | \$ 4,908 |
| BNY Convergen Execution Solutions LLC | 7,661 | 383,037 | 0.02 | 0.01 | 0.01 | 3,830 | 3,830 |
| BTIG LLC | 313,631 | 28,771,736 | 0.01 | 0.01 | | 287,718 | |
| Capital Institutional Services Inc. | 37,067 | 2,401,923 | 0.02 | 0.01 | 0.01 | 24,019 | 24,019 |
| Citigroup Global Markets Inc. | 14,040 | 702,036 | 0.02 | 0.01 | 0.01 | 7,020 | 7,020 |
| Cowen & Company LLC | 45,580 | 2,279,035 | 0.02 | 0.01 | 0.01 | 22,791 | 22,791 |
| Credit Suisse Securities LLC | 117,380 | 6,174,363 | 0.02 | 0.01 | 0.01 | 61,743 | 61,743 |
| Deutsche Bank - Alex Brown | 291 | 9,708 | 0.03 | 0.01 | 0.02 | 97 | 194 |
| Drexel Hamilton | 19,809 | 2,780,662 | 0.01 | 0.01 | | 27,807 | |
| J. P. Morgan Securities Inc. | 68,877 | 8,439,443 | 0.01 | 0.01 | | 84,394 | |
| Mischler Financial Group Inc. | 29,284 | 1,464,207 | 0.02 | 0.01 | 0.01 | 14,643 | 14,643 |
| Morgan Stanley & Co. Inc. | 108,540 | 5,416,541 | 0.02 | 0.01 | 0.01 | 54,165 | 54,165 |
| OTA LLC | 36,528 | 1,252,737 | 0.03 | 0.01 | 0.02 | 12,527 | 25,055 |
| Piper Jaffray & Co. | 1,388 | 138,829 | 0.01 | 0.01 | | 1,388 | |
| Stifel, Nicolaus & Co. Inc. | 2,519 | 62,997 | 0.04 | 0.01 | 0.03 | 629 | 1,890 |
| UBS Securities LLC | 387 | 9,652 | 0.04 | 0.01 | 0.03 | 97 | 290 |
| Total | <u>\$ 809,017</u> | <u>60,450,517</u> | <u>\$ 0.02</u> ² | <u>\$ 0.01</u> | <u>\$ 0.01</u> | <u>\$ 604,504</u> | <u>\$ 220,548</u> |

¹ 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.

² The average commission per share for all brokerage firms.

INVESTMENT SECTION

Investment Summary

Fiscal Year Ended September 30, 2015

| | <u>Market Value ¹</u> | <u>Percent of Total Market Value</u> | <u>Investment & Interest Income ²</u> | <u>Percent of Total Investment & Interest Income</u> |
|--|----------------------------------|--|--|--|
| Fixed Income Pools | \$ 1,458,176,009 | 12.2 % | \$ 41,434,962 | 17.0 % |
| Domestic Equity Pools | 3,341,702,079 | 28.0 | (15,775,034) | (6.5) |
| Real Estate and Infrastructure Pools | 1,209,124,130 | 10.1 | 120,159,272 | 49.2 |
| Private Equity Pools | 2,016,688,244 | 16.9 | 202,845,207 | 83.1 |
| International Equity Pools | 1,650,654,137 | 13.8 | (159,121,189) | (65.2) |
| Absolute Return Pools | 1,759,534,357 | 14.8 | 53,729,441 | 22.0 |
| Short Term Investment Pools ³ | 492,836,218 | 4.2 | 919,217 | 0.4 |
| | <u><u>\$ 11,928,715,174</u></u> | <u><u>100.0 %</u></u> | <u><u>\$ 244,191,876</u></u> | <u><u>100.0 %</u></u> |

¹ Market value excludes \$712,497,214 in security lending collateral for fiscal year 2015.

² Total Investment & Interest Income excludes net security lending income of \$14,130,707 and unrealized gain of \$27,715,969 for securities lending collateral.

³ Short term investment pools market value includes \$5,396,111 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



Gabriel Roeder Smith & Company
Consultants & Actuaries

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Southfield, MI 48076-3723

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248.799.9020 fax
www.gabrielroeder.com

October 23, 2015

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, 2014. The purpose of the September 30, 2014 annual actuarial valuations was to determine the contribution requirements for the fiscal year ending September 30, 2015, 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, 2014.

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 23, 2015
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 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

In addition, we provided the Schedule of OPEB Unfunded Actuarial Accrued Liability by Tier.

The September 30, 2014 valuations were based upon assumptions that were recommended in connection with a study of System experience covering the period from October 1, 2007 through September 30, 2012. 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
October 23, 2015
Page 3

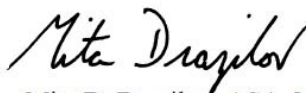
The signing actuaries are independent of the plan sponsor.

The actuarial valuations of SERS as of September 30, 2014 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 M. Gates, ASA, MAAA



Mita D. Drazilov, ASA, MAAA

ACTUARIAL SECTION

Summary of Actuarial Assumptions and Methods used in the Pension Valuation

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 2015 using projection scale BB. Adopted 2014.
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 withdrawal 2014 and disability/pay increase 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 about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.
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, 2007 through September 30, 2012 was completed in 2014. The purpose of the study was to analyze the actual experience of the System versus that anticipated by actuarial assumptions then in use. Adopted 2014.
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 | | 2.38 | 0.10 | 0.01 | 4.7 |
| 45 | | 1.84 | 0.34 | 0.04 | 4.0 |
| 55 | | 1.60 | 0.92 | 0.08 | 3.9 |
| 60 | | 1.60 | 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 |
|--|---------------|---|-----------------------------------|--------------------------------------|------------------------|----------------------------|
| 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 ¹ | 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 |
| 2014 | 14,985 | 1,010,987 | 67,467 | 2.7 | 53.7 | 25.8 |

¹ 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 |
| 2014 | 49,744 | 2,857 | 57,411 | 0.52 | 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* | | |
| 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 |
| 2014 | 2,421 | 69,805 | 1,660 | 32,801 | 57,615 | 1,212,333 | 3.1 | 21,042 |

* 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 |
| 2014 | 2,052 | 22,366 | 1,643 | 25,398 | 51,210 | 443,130 | (0.7) | 8,653 |

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.

| Pension Benefits (\$ in millions) | | | | | | | | |
|--------------------------------------|-----------------------------------|-----------------------------------|---|---------------------|----------------------------------|-------|--------|------------------|
| Valuation Date Sept. 30 | Actuarial Accrued Liability (AAL) | | | Valuation Assets | Portion of AAL Covered by Assets | | | |
| | (1) | (2) | (3) | | (1) | (2) | (3) | (4) ³ |
| | Active Member Contributions | Retirants and Beneficiaries | Active and Inactive Members (Employer Financed Portion) | | | | | |
| 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 ¹ | 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 ² | 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 | 65.5 |
| 2012 | 121 | 11,392 | 4,141 | 9,447 | 100 | 81.9 | 0 | 60.3 |
| 2013 | 162 | 11,612 | 3,874 | 9,438 | 100 | 79.9 | 0 | 60.3 |
| 2014 | 195 | 11,869 | 3,707 | 9,962 | 100 | 82.3 | 0 | 63.2 |
| 2014 ² | 195 | 12,149 | 3,829 | 9,962 | 100 | 80.4 | 0 | 61.6 |

¹ Revised asset valuation method.

² Revised actuarial assumptions.

³ 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) Active Member | (2) Retirants and Beneficiaries | (3) Active and Inactive Members (Employer Financed Portion) ³ | | (1) | (2) | (3) | (4) ¹ |
| Sept. 30 | Contributions | | | | | | | |
| 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 ² | | 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 |
| 2014 ² | | 5,792 | 2,957 | 1,058 | 0.0 | 18.3 | 0.0 | 12.1 |

¹ Percents funded on a total valuation asset and total actuarial accrued liability basis.

² Revised actuarial assumptions

³ Includes 'Monetized' members.

ACTUARIAL SECTION

Analysis of System Experience

Gains/(Losses) in Accrued Liabilities During Year Ended September 30, 2014 Resulting from Differences Between Assumed Experience & Actual Experience

| <u>Type of Activity</u> | <u>Gain/(Loss)</u> |
|---|-----------------------|
| 1. Retirements (including Disability Retirement). 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. | \$ (9,864,227) |
| 2. Withdrawal From Employment (including death-in-service). If more liabilities are released by withdrawals and deaths than assumed, there is a gain. If smaller releases, a loss. | (9,241,852) |
| 3. Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. | 28,467,040 |
| 4. Investment Income. If there is greater investment income than assumed, there is a gain. If less income, a loss. | 258,487,007 |
| 5. Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain. | 21,368,117 |
| 6. Rehires. Rehires will generally result in an actuarial loss. | (5,606,789) |
| 7. Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc. | <u>(37,947,676)</u> |
| 8. Composite Gain (or Loss) During Year | <u>\$ 202,925,386</u> |

ACTUARIAL SECTION

Summary of Plan Provisions

Our actuarial valuation of the System as of September 30, 2014, 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

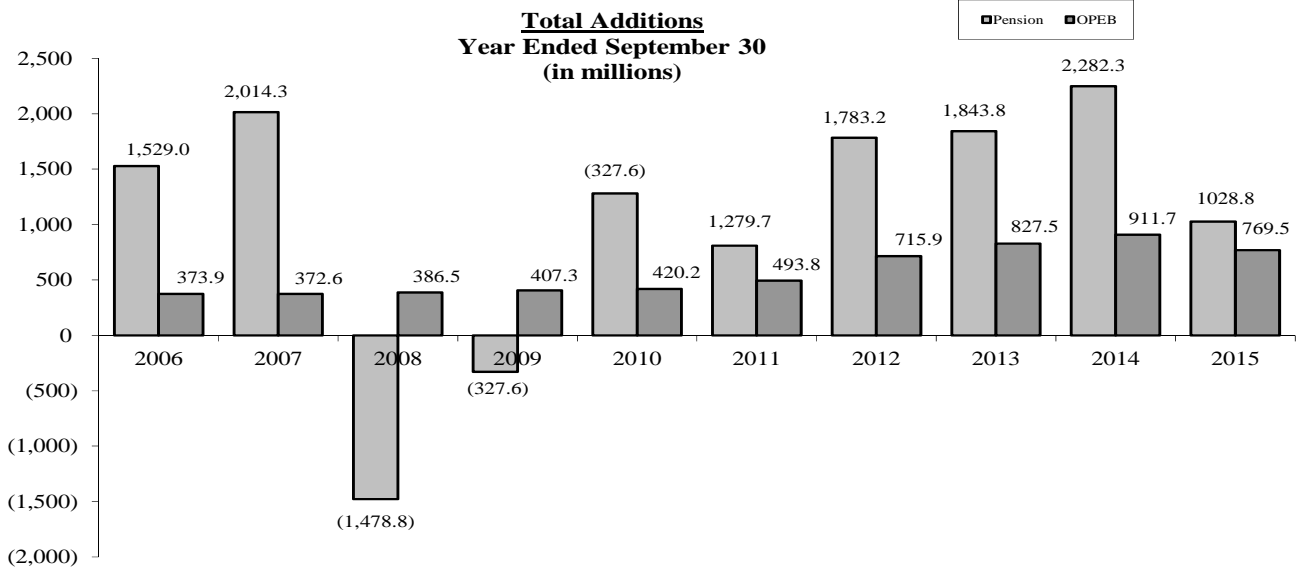
Last Ten Years

| Fiscal Year Ended Sept. 30 | Member Contributions | Employer Contributions | | Net Investment & Other Income | Total |
|----------------------------------|-------------------------|------------------------|--------------------------------|----------------------------------|------------------|
| | | Dollars | % of Annual Covered Payroll | | |
| 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 | 32.1 | 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 | 70.0 | 1,529,625,882 | 2,282,253,569 |
| 2015 | 46,689,032 | 749,487,469 | NA | 232,642,604 | 1,028,819,105 |

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 | | |
| 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 | 22.4 | 40,613,600 | 716,926,616 |
| 2013 | 43,590,023 | 688,348,987 | 23.9 | 95,530,670 | 827,469,704 |
| 2014 | 40,441,402 | 700,938,446 | 24.5 | 170,312,487 | 911,692,334 |
| 2015 | 37,687,750 | 664,368,713 | NA | 67,437,137 | 769,493,600 |



STATISTICAL SECTION

Schedule of Pension Plan Deductions by Type

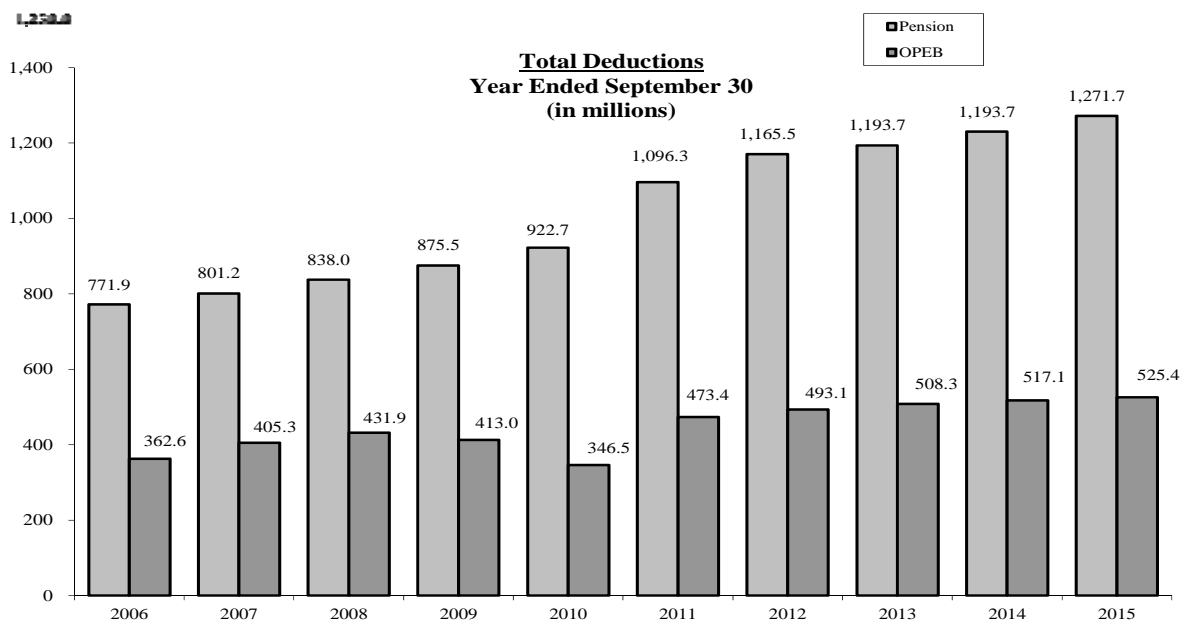
Last Ten Years

| Fiscal Year Ended Sept. 30 | Benefit Payments | Refunds and Transfers | Administrative and Other Expenses | Total |
|---|-----------------------------|----------------------------------|--|----------------|
| 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 |
| 2015 | 1,265,335,477 | 144,115 | 6,227,748 | 1,271,707,340 |

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 |
|---|-----------------------------|----------------------------------|--|----------------|
| 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 |
| 2015 | 500,629,557 | 17,402 | 24,754,938 | 525,401,896 |



STATISTICAL SECTION

Schedule of Changes in Fiduciary Net Position - Pension Plan

Last Ten Years
(in thousands)

| | Fiscal Year | | | | | | | | | |
|--------------------------------------|-------------------|---------------------|-----------------------|-----------------------|-------------------|---------------------|-------------------|-------------------|---------------------|---------------------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Member contributions | \$ 9,435 | \$ 19,696 | \$ 5,644 | \$ 6,995 | \$ 26,056 | \$ 25,831 | \$ 33,291 | \$ 53,035 | \$ 47,527 | \$ 46,688 |
| Employer contributions | 270,705 | 150,858 | 355,732 | 343,787 | 369,953 | 424,547 | 419,927 | 604,845 | 705,100 | 749,487 |
| DC savings subaccount | | | | | | | | | | |
| Net investment income | 1,248,616 | 1,801,588 | (1,840,587) | (678,588) | 883,511 | 360,284 | 1,329,925 | 1,185,726 | 1,529,583 | 232,588 |
| Transfer from other systems | 123 | 106 | 190 | 93 | 50 | 2 | | 1 | | 1 |
| Transfer from pension/ OPEB plan | | 41,304 | | | | | | | | |
| Miscellaneous income | 106 | 766 | 184 | 133 | 135 | 146 | 96 | 256 | 43 | 54 |
| Total Additions | <u>1,528,985</u> | <u>2,014,318</u> | <u>(1,478,837)</u> | <u>(327,579)</u> | <u>1,279,705</u> | <u>810,810</u> | <u>1,783,240</u> | <u>1,843,864</u> | <u>2,282,253</u> | <u>1,028,819</u> |
| Pension benefits | 767,000 | 795,842 | 832,553 | 870,279 | 917,329 | 1,089,823 | 1,156,035 | 1,187,911 | 1,222,881 | 1,265,335 |
| Refunds of member contributions | 254 | 222 | 291 | 316 | 299 | 470 | 189 | 105 | 152 | 144 |
| Transfer to pension/ OPEB plan | | | | | | | | | | |
| Transfers to other systems | 3 | 8 | 83 | 50 | 17 | 5 | | 9 | | |
| Administrative and other expenses | 4,628 | 5,115 | 5,049 | 4,865 | 5,073 | 6,079 | 9,254 | 5,658 | 6,931 | 6,228 |
| Total Deductions | <u>771,885</u> | <u>801,187</u> | <u>837,976</u> | <u>875,510</u> | <u>922,718</u> | <u>1,096,377</u> | <u>1,165,478</u> | <u>1,193,684</u> | <u>1,229,964</u> | <u>1,271,707</u> |
| Changes in net position | <u>\$ 757,100</u> | <u>\$ 1,213,131</u> | <u>\$ (2,316,813)</u> | <u>\$ (1,203,089)</u> | <u>\$ 356,987</u> | <u>\$ (285,567)</u> | <u>\$ 617,762</u> | <u>\$ 650,180</u> | <u>\$ 1,052,290</u> | <u>\$ (242,888)</u> |

Schedule of Changes in Fiduciary Net Position - OPEB Plan

Last Ten Years
(in thousands)

| | Fiscal Year | | | | | | | | | |
|--------------------------------------|------------------|--------------------|--------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Member contributions | \$ 11,528 | \$ 11,761 | \$ 13,100 | \$ 20,983 | \$ 20,905 | \$ 27,648 | \$ 27,432 | \$ 43,590 | \$ 40,441 | \$ 37,688 |
| Employer contributions | 356,674 | 359,375 | 342,187 | 362,419 | 360,126 | 388,196 | 648,881 | 688,349 | 700,938 | 664,369 |
| Other governmental contributions | | | 23,004 | 21,987 | 27,058 | 64,773 | 23,774 | 41,514 | 54,945 | 49,292 |
| DC savings subaccount | | | | | | | | | | |
| Net investment income | 5,661 | 1,500 | 657 | 1,359 | 11,815 | 12,851 | 16,592 | 53,592 | 115,308 | 18,034 |
| Transfers from other systems | | | 6,884 | | | | | | | |
| Transfer from pension/ OPEB plan | | | | | | | | | | |
| Miscellaneous income | | | 698 | 516 | 278 | 293 | 248 | 425 | 60 | 111 |
| Total Additions | <u>373,863</u> | <u>372,636</u> | <u>386,530</u> | <u>407,263</u> | <u>420,182</u> | <u>493,761</u> | <u>716,927</u> | <u>827,470</u> | <u>911,692</u> | <u>769,494</u> |
| Health care benefits | 362,598 | 363,975 | 377,513 | 392,135 | 330,513 | 456,879 | 476,508 | 485,707 | 491,569 | 500,630 |
| Refunds of member contributions | | | 2 | 2 | 11 | 21 | 17 | 15 | 23 | 17 |
| 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 | 24,755 |
| Total Deductions | <u>362,598</u> | <u>405,279</u> | <u>431,909</u> | <u>413,034</u> | <u>346,479</u> | <u>473,436</u> | <u>493,144</u> | <u>508,326</u> | <u>517,128</u> | <u>525,402</u> |
| Changes in net position | <u>\$ 11,265</u> | <u>\$ (32,643)</u> | <u>\$ (45,379)</u> | <u>\$ (5,771)</u> | <u>\$ 73,702</u> | <u>\$ 20,325</u> | <u>\$ 223,783</u> | <u>\$ 319,144</u> | <u>\$ 394,564</u> | <u>\$ 244,092</u> |

STATISTICAL SECTION

Schedule of Pension Benefits and Refunds by Type

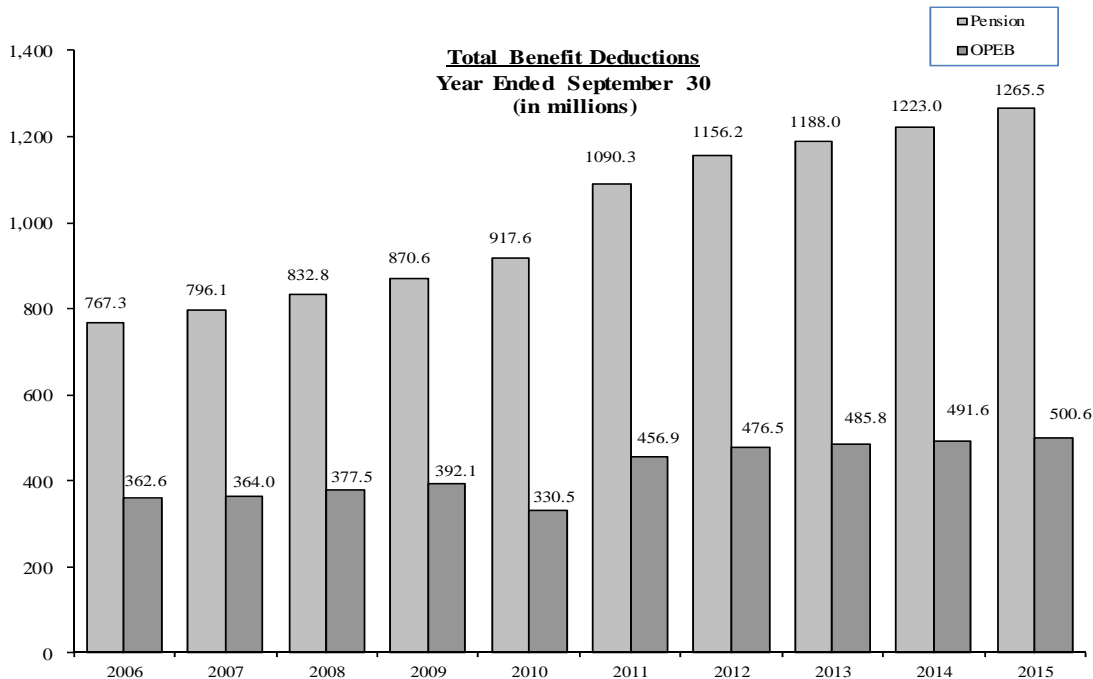
Last Ten Years

| Fiscal Year Ended Sept. 30 | Regular Benefits | Disability Benefits | Survivor Benefits | Refunds | | | | Total |
|----------------------------------|---------------------|------------------------|----------------------|--------------------------|--------------------------|--------------------|----------------------|----------------|
| | | | | Employee Contribution | Employer Contribution | Retired Benefit | Investment Income | |
| 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 |
| 2015 | 1,113,035,295 | 46,634,211 | 105,665,971 | 91,170 | 50,383 | 2,562 | | 1,265,479,592 |

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 |
|----------------------------------|--------------------|--------------------|--------------------|-------------------------|------------------------------|-------------------|----------------|
| 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 |
| 2015 | 453,617,812 | 38,919,834 | 3,163,993 | 4,893,957 | 33,959 | 17,401 | 500,646,957 |



STATISTICAL SECTION

Schedule of Retired Members by Type of Pension Benefit

September 30, 2014

| Amount of Monthly Pension Benefit | Number of Retirees | Type of Retirement * | | | | | | | |
|---|-----------------------|----------------------|--------------|------------|--------------|-----------|--------------|--------------|--------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| \$ 1 - 200 | 386 | 242 | 94 | 4 | 32 | | 9 | 1 | 4 |
| 201 - 400 | 2,005 | 1,361 | 332 | 11 | 188 | 2 | 44 | 2 | 65 |
| 401 - 600 | 3,633 | 2,262 | 553 | 26 | 481 | | 126 | 11 | 174 |
| 601 - 800 | 4,654 | 2,664 | 594 | 164 | 685 | 16 | 229 | 31 | 271 |
| 801 - 1,000 | 4,549 | 2,754 | 589 | 6 | 647 | 1 | 186 | 89 | 277 |
| 1,001 - 1,200 | 4,301 | 2,665 | 429 | 18 | 602 | 1 | 203 | 149 | 234 |
| 1,201 - 1,400 | 4,322 | 2,686 | 383 | 20 | 582 | | 200 | 250 | 201 |
| 1,401 - 1,600 | 4,374 | 2,942 | 401 | 11 | 405 | 1 | 159 | 327 | 128 |
| 1,601 - 1,800 | 4,336 | 3,231 | 308 | 11 | 210 | 1 | 113 | 381 | 81 |
| 1,801 - 2,000 | 4,100 | 3,159 | 239 | 8 | 149 | | 84 | 415 | 46 |
| Over 2,000 | 20,955 | 16,913 | 630 | 6 | 142 | | 177 | 3,001 | 86 |
| Totals | <u>57,615</u> | <u>40,879</u> | <u>4,552</u> | <u>285</u> | <u>4,123</u> | <u>22</u> | <u>1,530</u> | <u>4,657</u> | <u>1,567</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

Source: Gabriel Roeder Smith & Co.

STATISTICAL SECTION

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

September 30, 2014

| 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 | 386 | 120 | 113 | 106 | 6 | 30 | 6 | 5 | |
| 201 - 400 | 2,005 | 810 | 543 | 414 | 45 | 118 | 34 | 39 | 2 |
| 401 - 600 | 3,633 | 1,479 | 1,044 | 615 | 89 | 220 | 73 | 105 | 8 |
| 601 - 800 | 4,654 | 1,954 | 1,210 | 707 | 113 | 371 | 111 | 181 | 7 |
| 801 - 1,000 | 4,549 | 1,677 | 1,172 | 758 | 124 | 519 | 97 | 181 | 21 |
| 1,001 - 1,200 | 4,301 | 1,756 | 1,172 | 647 | 121 | 342 | 78 | 165 | 20 |
| 1,201 - 1,400 | 4,322 | 1,865 | 1,238 | 624 | 168 | 256 | 59 | 96 | 16 |
| 1,401 - 1,600 | 4,374 | 1,954 | 1,311 | 651 | 177 | 158 | 61 | 51 | 11 |
| 1,601 - 1,800 | 4,336 | 1,827 | 1,332 | 756 | 218 | 104 | 58 | 36 | 5 |
| 1,801 - 2,000 | 4,100 | 1,694 | 1,245 | 699 | 266 | 87 | 62 | 32 | 15 |
| Over 2,000 | 20,955 | 8,302 | 5,795 | 3,672 | 1,519 | 822 | 315 | 384 | 146 |
| Totals | 57,615 | 23,438 | 16,175 | 9,649 | 2,846 | 3,027 | 954 | 1,275 | 251 |

**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, 2014

| Amount of Monthly Pension Benefit | Retired Members | Type of Other Postemployment Benefits | | |
|---|--------------------|---------------------------------------|--------|--------|
| | | Health | Dental | Vision |
| \$ 1 - 200 | 386 | 181 | 193 | 196 |
| 201 - 400 | 2,005 | 1,159 | 1,191 | 1,185 |
| 401 - 600 | 3,633 | 2,506 | 2,575 | 2,583 |
| 601 - 800 | 4,654 | 3,699 | 3,758 | 3,736 |
| 801 - 1,000 | 4,549 | 3,808 | 3,868 | 3,860 |
| 1,001 - 1,200 | 4,301 | 3,736 | 3,794 | 3,782 |
| 1,201 - 1,400 | 4,322 | 3,857 | 3,877 | 3,879 |
| 1,401 - 1,600 | 4,374 | 3,968 | 4,001 | 3,999 |
| 1,601 - 1,800 | 4,336 | 3,982 | 4,018 | 4,008 |
| 1,801 - 2,000 | 4,100 | 3,766 | 3,818 | 3,804 |
| Over 2,000 | 20,955 | 19,324 | 19,620 | 19,570 |
| Totals | 57,615 | 49,986 | 50,713 | 50,602 |

Source: Gabriel Roeder Smith & Co.

STATISTICAL SECTION

Schedules of Funding Progress - Pension Plan

Last Ten Years

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) |
|------------------------------|--|---|--|--------------------------|---------------------------|--|
| 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 ² | 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 ¹ | 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 |
| 2014 | 9,962 | 15,771 | 5,809 | 63.2 | 1,011 | 574.6 |
| 2014 ¹ | 9,962 | 16,173 | 6,211 | 61.6 | 1,011 | 614.4 |

¹ Revised actuarial assumptions.

² Revised asset valuation method.

Schedule of Other Postemployment Benefits

For Year Ended September 30, 2015

Claims

| | |
|------------------|----------------|
| Health Insurance | \$ 431,099,232 |
| Vision Insurance | 3,014,720 |
| Dental Insurance | 38,139,265 |

Total Claims 472,253,217

Estimated Claims Liability

| | |
|------------------|------------|
| Health Insurance | 22,518,581 |
| Vision Insurance | 149,273 |
| Dental Insurance | 780,569 |

Total Estimated Claims Liability 23,448,423

Administrative Fees

| | |
|------------------|------------|
| Health Insurance | 22,633,318 |
| Vision Insurance | 232,090 |
| Dental Insurance | 1,889,530 |

Total Administrative Fees 24,754,938

Subtotal

| | |
|------------------------------|-----------|
| Refunds | 17,401 |
| Personal Health Care | 4,893,957 |
| Health Reimbursement Account | 33,959 |

Grand Total \$ 525,401,894

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 10/1/04 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 |
| Period 10/1/13 to 9/30/14 | | | | | | | | |
| Average Monthly Benefit | \$ 386 | \$ 487 | \$ 669 | \$ 1,037 | \$ 1,433 | \$ 1,908 | \$ 2,505 | \$ 1,753 |
| Average Final Average Salary | 26,402 | 40,117 | 35,776 | 41,152 | 45,886 | 49,336 | 55,821 | 48,120 |
| Number of Active Retirants | 112 | 462 | 7,423 | 7,949 | 8,814 | 12,361 | 20,494 | 57,615 |

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 09/30/05

STATISTICAL SECTION

Schedule of Average Benefit Payments - Health

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 10/1/04 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 |
| Period 10/1/13 to 9/30/14 | | | | | | | | |
| Average Monthly Benefit | \$ 353 | \$ 538 | \$ 707 | \$ 1,072 | \$ 1,472 | \$ 1,946 | \$ 2,563 | \$ 1,824 |
| Average Final Average Salary | 28,776 | 37,647 | 36,473 | 41,481 | 46,100 | 49,180 | 55,718 | 48,477 |
| Number of Active Retirants | 75 | 509 | 5,599 | 6,643 | 7,863 | 11,128 | 18,169 | 49,986 |

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 09/30/05

STATISTICAL SECTION

Schedule of Average Benefit Payments - Dental

Last Ten 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 | 25,022 | 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 |
| Period 10/1/13 to 9/30/14 | | | | | | | | |
| Average Monthly Benefit | \$ 348 | \$ 532 | \$ 705 | \$ 1,072 | \$ 1,473 | \$ 1,947 | \$ 2,567 | \$ 1,823 |
| Average Final Average Salary | 28,959 | 37,747 | 36,488 | 41,585 | 46,202 | 49,257 | 55,836 | 48,546 |
| Number of Active Retirants | 81 | 538 | 5,749 | 6,748 | 7,936 | 11,237 | 18,424 | 50,713 |

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 09/30/05

STATISTICAL SECTION

Schedule of Average Benefit Payments - Vision

Last Ten Years

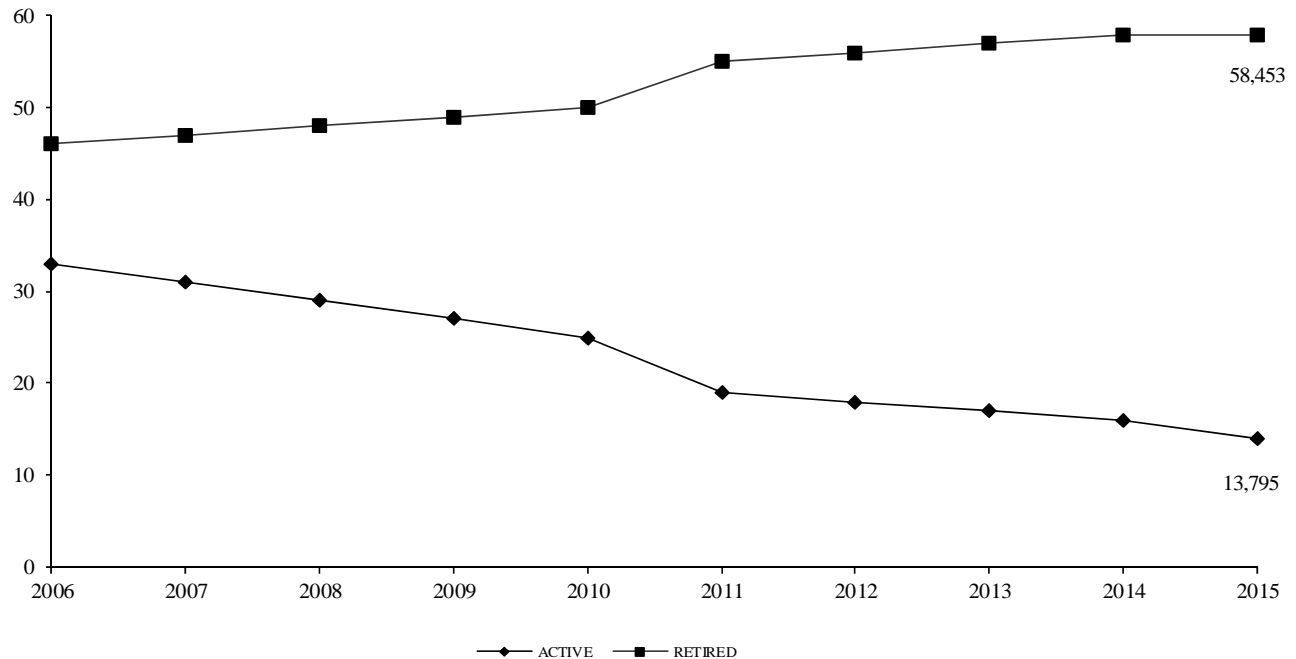
| Payment Periods | Credited Service (Years) as of September 30 | | | | | | | |
|------------------------------|---|----------|---------|----------|----------|----------|----------|----------|
| | 0 - 5 | 5 - 10 | 10 - 15 | 15 - 20 | 20 - 25 | 25 - 30 | 30+ | Total |
| Period 10/1/04 to 9/30/05 | | | | | | | | |
| 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 |
| Period 10/1/13 to 9/30/14 | | | | | | | | |
| Average Monthly Benefit | \$342 | \$526 | \$705 | \$1,071 | \$1,473 | \$1,946 | \$2,566 | \$1,823 |
| Average Final Average Salary | 28,635 | 37,368 | 36,480 | 41,507 | 46,145 | 49,221 | 55,796 | 48,503 |
| Number of Active Retirants | 78 | 537 | 5,719 | 6,742 | 7,914 | 11,228 | 18,384 | 50,602 |

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 09/30/05

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 2015 report included:

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The report may be viewed on-line at: www.michigan.gov/ors