Michigan State Police Retirement System

A Pension and Other Employee Benefit Trust Fund of the State of Michigan

Comprehensive Annual Financial Report for the Fiscal Year Ended 2015



MSPRS

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

Table of Contents

| Introductory Section | |
|---|-----|
| Certificate of Achievement | 4 |
| Public Pension Standards Award | 5 |
| Letter of Transmittal | 6 |
| Retirement Board Members | 10 |
| Advisors and Consultants | 10 |
| Organization Chart | 11 |
| Financial Section | |
| Independent Auditor's Report | 14 |
| Management's Discussion and Analysis | |
| Basic Financial Statements | |
| Statement of Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position | 21 |
| Statement of Changes in Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position | |
| Notes to Basic Financial Statements | |
| Required Supplementary Information | |
| Schedule of Funding Progress – Other Postemployment Benefit Plan | 41 |
| Schedule of Changes in Net Pension Liability | |
| Schedule of Net Pension Liability | |
| Schedules of Contributions | |
| Schedule of Investment Returns. | |
| Note to Required Supplementary Information | |
| Supporting Schedules | ' ' |
| Summary Schedule of Administrative and Other Expenses | 46 |
| Schedule of Investment Expenses | |
| Schedule of Payments for Professional Services. | |
| Detail of Changes in Plan Fiduciary Net Position (Pension and Other Postemployment Benefits) | |
| Investment Section | |
| | 50 |
| 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 | 66 |
| Actuarial Section | |
| Actuary's Certification | |
| Summary of Actuarial Assumptions and Methods | 71 |
| Schedule of Active Member Valuation Data | |
| Schedule of Changes in the Retirement Rolls | 74 |
| Prioritized Solvency Test | |
| Analysis of System Experience | 77 |
| Summary of Plan Provisions | 78 |
| Statistical Section | |
| Schedules of Additions by Source | 83 |
| Schedules of Deductions by Type | |
| Schedules of Changes in Fiduciary 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 | 90 |
| Schedules of Average Benefit Payments | |
| Ten Year History of Membership | |
| Acknowledgements | |
| | |

INTRODUCTORY SECTION

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

Introductory Section

Certificate of Achievement



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Michigan State Police 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)

> Alan H. Winkle Program Administrator

Introductory Section Letter of Transmittal

State Police Retirement System P.O. Box 30171 Lansing, Michigan 48909-7671 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 Police Retirement System (System) for fiscal year 2015.

INTRODUCTION TO REPORT

The System was established by legislation under Public Act 251 of 1935. It now operates under the provisions of Public Act 182 of 1986, as amended, and is administrated by the Office of Retirement Services (ORS). The number of active and retired members and beneficiaries of the System 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 Police officers. 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 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

Introductory Section

Letter of Transmittal (continued)

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 that 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 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) requires 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 State Police Retirement System was created by Public Act 251 of 1935 and later superseded by Public Act 182 of 1986. A nine-member board, under the direction of a chairperson elected from the membership, administers the System to provide retirement benefits for State Police officers. Employee contributions, employer contributions, investment earnings, and an annual legislative appropriation provide financing for the System. All individuals hired on or after June 10, 2012 are members of the Pension Plus Plan with a combined Defined Benefit and Defined Contribution benefit structure.

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 2.5% for Pension and 2.5% for the Other Post-Employment Benefits (OPEB) Plans. For the last five years, the System has experienced an annualized rate of return of 10.0% for pension plan. A summary of asset allocation and rates of return can be found in the Investment Section of this report.

Accounting System

Transactions of the System are reported on the accrual basis of accounting. Additions are recorded when earned and deductions 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 financial statements, and in maintaining accountability for its assets.

Introductory Section Letter of Transmittal (continued)

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. Consistent with this approach, the most recent actuarial valuation was performed as of September 30, 2014.

Pension - The actuarial value of the assets and actuarial accrued liability of the System were \$1.1 billion and \$1.8 billion, respectively, resulting in a funded ratio of 63.0% at 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 \$77.7 million and \$637.4 million respectively resulting in a funded ratio of 12.2% 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 Supplementary Information (RSI) of the Financial Section of this report.

MAJOR GOALS ACCOMPLISHED

<u>We Moved!</u> - 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.

<u>miAccount Surpasses 400,000 Registered Users</u> - 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 to update their personal information.

<u>Address Processes Upgraded</u> - 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.

<u>Insurance Billing Auto-Allocation Implemented</u> - 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.

Introductory Section

Letter of Transmittal (continued)

HONORS

<u>Public Pension Standards Award</u> - 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 its fiscal year 2014 Comprehensive Annual Financial Report. 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 Police Retirement System. Their cooperation contributes significantly to the success of the System.

Sincerely,

David B. Behen, Director

Department of Technology, Management & Budget

Keine S. Vanden Bosch

Kerrie Vanden Bosch, Director Office of Retirement Services

INTRODUCTORY SECTION Administrative Organization

Retirement Board Members*

Colonel Kriste Etue Director, Dept. of State Police

Statutory Member

Bernard Kent General Public

Term Expires December 31, 2015

Robert L. Brackenbury

Molly Jason

Representing Attorney General

Statutory Member

Cheryl Schmittdiel

Representing Director, Office of State

Employer

Statutory Member

Craig Murray

Representing Deputy Auditor General

Detective Sergeant Mitchell Stevens

Representing Sergeants and Below

Term Expires December 31, 2015

Statutory Member

Representing State Treasurer

Statutory Member

Captain Kevin P. McGaffigan,

Vice Chair

Representing Lieutenants and Above

Term Expires December 31, 2016

Retired First Lieutenant Diane Garrison

Chair

Retiree Member

Term Expires December 31, 2017

*Statute provides that board members may continue to serve after their term expires until they are 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

Actuaries

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

Legal Advisor

Bill Schuette Attorney General State of Michigan **Independent Auditors**

Doug 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

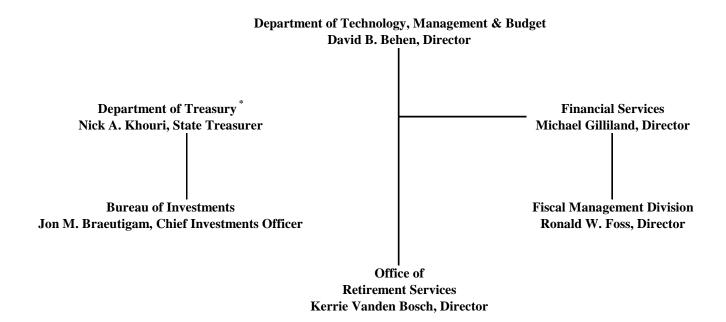
State Street Investment Analytics

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.

This page intentionally left blank.

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, CIAAuditor General

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

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

Ms. Diane Garrison, Chair Michigan State Police 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 Ms. Garrison, Mr. Behen, and Ms. Vanden Bosch:

Report on the Financial Statements

We have audited the accompanying financial statements of the Michigan State Police 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 Police 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.





Ms. Diane Garrison, Chair Mr. David B. Behen, Director Ms. Kerrie 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 20 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 41 through 45 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by 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,

Doug Ringler Auditor General December 30, 2015

Doug Kingler

Management's Discussion and Analysis

Our discussion and analysis of the Michigan State Police 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 its liabilities at the close of fiscal year 2015 by \$1.3 billion (reported as *net position restricted*). Fiduciary net position is restricted to meet future benefit payments.
- Additions for the year were \$149.5 million, which are comprised primarily of contributions of \$121.9 million and investment gains of \$27.6 million.
- Deductions increased over the prior year from \$144.0 million to \$149.1 million or 3.6%. This is largely due to increased aggregate retirement benefit payments and insurance benefit costs. The number of retirees also increased compared to last year.

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 21) and *The Statement of Changes in Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position* (page 22). 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 additions and deductions 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 measure 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 Changes in Net Pension Liability (page 42), Schedule of Funding Progress — Other Postemployment Benefit Plan (page 41), and Schedules of Contributions (page 43), to determine whether the System is becoming financially stronger or weaker.

Management's Discussion and Analysis (continued)

FINANCIAL ANALYSIS

System total assets as of September 30, 2015, were \$1.4 billion and were mostly comprised of cash, investments, and contributions due from employers. Total assets decreased \$12.6 million or 0.89% between fiscal years 2014 and 2015 due primarily to a decrease in investment income.

Total liabilities as of September 30, 2015, were \$80.5 million and were comprised of warrants outstanding, accounts payable and other accrued liabilities, and obligations under securities lending. Total liabilities decreased \$13.1 million or 14.0% between fiscal years 2014 and 2015 due primarily to a decrease in obligations under securities lending.

System assets exceeded its liabilities at the close of fiscal year 2015 by \$1.3 billion. Total net position restricted for pension and OPEB increased \$344 thousand or 0.0% between fiscal years 2014 and 2015 due primarily to modest investment income and increased employer contributions.

Plan Fiduciary Net Position (in thousands)

| | | | Increase |
|------------------------------------|--------------|--------------|------------|
| | 2015 | 2014 | (Decrease) |
| Assets | | | |
| Equity in common cash | \$ 4,666 | \$ 14,125 | (67.0) % |
| Receivables | 7,710 | 7,155 | 7.8 |
| Investments | 1,317,815 | 1,311,794 | 0.5 |
| Securities lending collateral | 78,493 | 88,398 | (11.2) |
| Total Assets | 1,408,683 | 1,421,472 | (0.9) |
| Liabilities | | | |
| Warrants outstanding | 4 | 25 | (84.0) |
| Accounts payable and | | | |
| other accrued liabilities | 2,023 | 2,134 | (5.2) |
| Obligations under | | | |
| securities lending | 78,481 | 91,481 | (14.2) |
| Total Liabilities | 80,508 | 93,640 | (14.0) |
| Net Position Restricted for | | | |
| Pension Benefits and OPEB | \$ 1,328,176 | \$ 1,327,832 | 0.0 % |

Management's Discussion and Analysis (continued)

ADDITIONS TO PLAN FIDICUARY 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 \$149.5 million.

Total additions decreased \$143.4 million between fiscal years 2014 and 2015. This is due primarily to decreased net investment gains. Total contributions increased between fiscal years 2014 and 2015 by \$11.7 million or 10.7%. This increase is due primarily to activity related to larger employer contributions from an increase in the contribution rate and larger employee contributions. Net investment gains decreased between fiscal years 2014 and 2015, by \$155.2 million or 84.9%. 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, refund of contributions to former members, and the cost of administering the System. Total deductions for fiscal year 2015 were \$149.1 million, an increase of 3.6% over fiscal year 2014 deductions.

The health, dental and vision care expenses to members and beneficiaries increased by \$0.3 million or 1.0% from \$31.4 million to \$31.7 million between fiscal years 2014 and 2015. Pension benefit payments increased by \$4.9 million or 4.5% between fiscal years 2014 and 2015. The increase in pension benefit deductions in 2015 is due primarily to an increase in DROP distributions (for more information on DROP, see note 1) and an increase in retirees of 24. Administrative and other expenses decreased by \$0.04 million or 2.0% from \$2.0 million in fiscal year 2014 to \$1.9 million in fiscal year 2015, due primarily to an decrease in personnel, contract, and office expenses.

Management's Discussion and Analysis (continued)

Changes in Plan Fiduciary Net Position (in thousands)

| | 2015 | 2014 | Increase (Decrease) |
|---|-------------------------|--------------|------------------------|
| Additions | | | |
| Member contributions | \$ 3,80 | 7 \$ 3,373 | 12.9 % |
| Employer contributions | 116,19 | 9 105,006 | 10.7 |
| Other governmental contributions | 1,87 | 4 1,758 | 6.6 |
| Net investment income (loss) | 27,56 | 2 182,722 | (84.9) |
| Miscellaneous income | 1 | 2 | |
| Total Additions | 149,45 | 4 292,858 | (49.0) |
| Deductions | | | |
| Pension benefits | 115,46 | 6 110,543 | 4.5 |
| Health care benefits | 31,69 | 7 31,373 | 1.0 |
| Refunds of contributions | | 3 8 | (62.5) |
| Administrative and other expenses | 1,94 | 5 1,985 | (2.0) |
| Total Deductions | 149,11 | 0 143,909 | 3.6 |
| Net Increase (Decrease) in Net Position | 34 | 3 148,948 | (99.8) |
| Net Position Restricted for | | | |
| Pension Benefits and OPEB: | 1 227 92 | 1 170 004 | 12.6 |
| Beginning of Year End of Year | 1,327,83 \$ 1,328,17 | | 12.6 |
| End of Tear | \$ 1,328,17 | \$ 1,347,834 | 0.0 % |

Management's Discussion and Analysis (continued)

RETIREMENT SYSTEM AS A WHOLE

The System's overall Fiduciary Net Position experienced a small increase in fiscal year 2015 after a larger increase in fiscal year 2014. The System's rate of return decreased 13.0% from a 15.5% return in fiscal year 2014 to a 2.5% return for the Pension Plan and decreased 12.5% from a 15.0% return in fiscal year 2014 to a 2.5% return for the OPEB Plan 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.

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 | \$ | 3,037 | \$ | 1,629 | \$ | 4,666 |
| Receivables: | | | | | | |
| Amounts due from members | | 53 | | | | 53 |
| Amounts due from employers | | 3,532 | | 2,295 | | 5,827 |
| Amounts due from federal agencies | | | | 1,074 | | 1,074 |
| Amounts due from other | | | | 598 | | 598 |
| Interest and dividends | | 149 | | 10 | | 159 |
| Total receivables | | 3,733 | | 3,977 | | 7,710 |
| Investments: | | | | | | |
| Short term investment pools | | 49,810 | | 3,205 | | 53,016 |
| Fixed income pools | | 150,131 | | 11,182 | | 161,313 |
| Domestic equity pools | | 343,581 | | 25,693 | | 369,274 |
| Real estate and infrastructure pools | | 124,397 | | 9,298 | | 133,695 |
| Private equity pools | | 207,491 | | 15,512 | | 223,004 |
| International equity pools | | 169,952 | | 12,698 | | 182,650 |
| Absolute return pools | | 181,320 | | 13,543 | | 194,864 |
| Total investments | | 1,226,683 | | 91,132 | | 1,317,815 |
| Securities lending collateral | | 73,087 | | 5,406 | | 78,493 |
| Total assets | | 1,306,540 | | 102,144 | | 1,408,683 |
| Liabilities: | | | | | | |
| Warrants outstanding | | 4 | | | | 4 |
| Accounts payable and other accrued liabilities Obligations under | | 55 | | 1,968 | | 2,023 |
| securities lending | | 73,076 | | 5,405 | | 78,481 |
| Total liabilities | | 73,134 | | 7,373 | | 80,508 |
| Net Position Restricted for Pension Benefits and OPEB: | \$ | 1,233,405 | \$ | 94,770 | \$ | 1,328,176 |
| ioi i dision balans and Oi ED. | Ψ | 1,433,403 | Ψ | 94,770 | Ψ | 1,540,170 |

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

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 | \$ 2,677 | \$ 1,130 | \$ 3,807 |
| Employer contributions | 70,351 | 45,848 | 116,199 |
| Other governmental contributions | | 1,874 | 1,874 |
| Total contributions | 73,028 | 48,851 | 121,880 |
| Investment income (loss): | | | |
| Net increase (decrease) in | | | |
| fair value of investments | 1,615 | (315) | 1,301 |
| Interest, dividends, and other | 26,827 | 1,785 | 28,612 |
| Investment expenses: | | | |
| Real estate operating expenses | (25) | (2) | (27) |
| Other investment expenses | (3,653) | (241) | (3,894) |
| Securities lending activities: | | | |
| Securities lending income | 2,092 | 145 | 2,237 |
| Securities lending expenses | (620) | (46) | (666) |
| Net investment income (loss) | 26,236 | 1,326 | 27,562 |
| Miscellaneous income | 3 | 9 | 12 |
| Total additions | 99,268 | 50,186 | 149,454 |
| Deductions: | | | |
| Benefits and refunds paid to plan members | | | |
| and beneficiaries: | | | |
| Retirement benefits | 115,466 | | 115,466 |
| Health benefits | | 29,110 | 29,110 |
| Dental/vision benefits | | 2,587 | 2,587 |
| Refunds of contributions | 3 | | 3 |
| Administrative and other expenses | 561 | 1,384 | 1,945 |
| Total deductions | 116,030 | 33,080 | 149,110 |
| Net Increase (Decrease) in net position | (16,762) | 17,106 | 343 |
| Net Position Restricted for Pension Benefits and OPEB | | | |
| Beginning of Year | 1,250,168 | 77,664 | 1,327,832 |
| End of Year | \$ 1,233,405 | \$ 94,770 | \$ 1,328,176 |

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

Notes to Basic Financial Statements September 30, 2015

NOTE 1 - PLAN DESCRIPTION

ORGANIZATION

The Michigan State Police Retirement System (System) is a single employer, state-wide, defined benefit public employee retirement plan governed by the State of Michigan (State), created under Public Act 251 of 1935, recodified and currently operating under Public Act 182 of 1986. Section 7 of this act establishes the board's authority to promulgate or amend the provisions of the System. The board consists of nine members. Four members are appointed by the governor and consist of one officer having rank of sergeant or below, one officer having rank of lieutenant or above, one retirant, and one member of the general public to meet requirements within the act. The System's pension plan was established by the State to provide retirement, survivor, and disability benefits to Michigan State Police. In addition, the System's OPEB plan provides retirees hired prior to June 10, 2012 with the option of receiving health, dental, and vision coverage under the State Police Retirement Act. The System is a qualified pension trust fund under section 401(a) of the Internal Revenue Code.

A hybrid defined benefit and defined contribution plan was introduced for troopers and sergeants who became a member of SPRS on or after June 10, 2012 - this plan is called the Pension Plus plan for Michigan State Police.

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 (DTMB). 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.

MEMBERSHIP

At September 30, 2015 the System's membership consisted of the following:

| Inactive plan members or beneficiaries | |
|--|-----------|
| currently receiving benefits: | |
| Regular benefits | 2,303 |
| Survivor benefits | 489 |
| Disability benefits | 195 |
| Total | 2,987 |
| Inactive plan members entitled | |
| to but not yet receiving benefits: | 42 |
| Active plan members: | |
| Vested | 975 |
| Non-vested | 541 |
| Total | 1,516 |
| DROP program participants | 294 |
| Total plan memb | ers 4,839 |

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

| Health, Dental, and Vision Plans Eligible participants | 2,786 |
|---|-------|
| Participants receiving benefits: | |
| Health | 2,653 |
| Dental | 2,644 |
| Vision | 2,649 |

Notes to Basic Financial Statements (continued)

BENEFIT PROVISIONS -- PENSION

Introduction

Benefit provisions of the defined benefit plan are established by State statute, which may be amended. Public Act 182 of 1986, Michigan State Police Retirement Act, as amended, establishes eligibility and benefit provisions for the defined benefit pension plan and the Pension Plus plan. Retirement benefits for defined benefit plan members are determined by final average compensation and members are eligible to receive a monthly benefit when they meet certain age and service requirements. The pension benefit for Pension Plus plan members is determined by final average compensation and years of service and members are eligible to receive a monthly benefit when they meet certain age and service requirements. In addition, the Pension Plus members' savings component includes the employee contributions into any combination of a member's 401(k), 457, or Roth 401(k) accounts, and an employer match into their 401(k) account. The System also provides duty disability, non-duty disability, and survivor benefits.

A member who leaves Michigan State Police employment may request a refund of his or her member pension contribution account. Effective in 2012, the System is contributory except for command officers. A refund cancels a former member's rights to a future pension and there is no provision for repaying the refund of contributions to restore the service represented by the refund.

Pension Reform 2012

The State Troopers' union and the State of Michigan negotiated a new retirement plan for new State Troopers and Sergeants. As a result, a State Trooper who became a member of SPRS on or after June 10, 2012, is a Pension Plus member. The Pension Plus plan pairs a guaranteed retirement income (Defined Benefit pension) with a flexible and transferable retirement investment (Defined Contribution) account.

Regular Retirement

A pension is available to a defined benefit plan member after 25 years of credited service (employment). The pension equals 60% of a member's final average compensation and is payable monthly over the lifetime of a member. Final average compensation is the average annual salary for a member's last two years of service with the Department of State Police.

For a Pension Plus member, who became a member of SPRS on or after June 10, 2012, a pension is available at age 55 with 25 years of service or age 60 with 10 or more years of service. The pension equals 2% of a five-year final average compensation (excluding overtime) multiplied by the total number of years of credited service, not to exceed 25 years. After 25 years of credited service, the pension multiplier declines by 0.4% each year until reaching 0% at 30 years of service. The reduced pension multiplier applies only to years 26 through 30, not the first 25 years. This pension is paid monthly over the lifetime of a member. Pension benefits are paid over the lifetime of a member.

Deferred Retirement

A defined benefit plan member with 10 or more years of credited service who terminates employment but has not reached the age of 50 is a deferred member and is entitled to receive a monthly allowance upon reaching age 50, provided the member's accumulated contributions have not been refunded. The deferred pension is equal to two percent of the final average compensation times the years and partial years of service credit.

A Pension Plus plan member who became a member of SPRS on or after June 10, 2012, with 10 or more years of credited service who terminates employment but has not reached the age of 60 is a deferred member and is entitled to receive a monthly allowance upon reaching age 60, provided the member's accumulated contributions have not been refunded.

Notes to Basic Financial Statements (continued)

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 an employee of the Michigan State Police may be eligible for a non-duty disability pension. The non-duty disability pension for a defined benefit plan member is 2.4% of the final average compensation times years and partial years of credited service (but not more than 25 years).

Duty Disability Benefit

A member who becomes totally and permanently disabled from performing duties as a Michigan State Police Officer is eligible for a duty disability pension. The amount, for a defined benefit plan member, is equal to 60% of the final average compensation.

Survivor Benefit

Upon the nonduty death of a defined benefit plan member who completed at least 10 years of service, the surviving spouse receives a benefit based on 2.4% of the final average compensation for each year and partial year of credited service. If there is no spouse, surviving children are entitled to equally share the benefit until age 18. If death occurs in the line of duty (a duty death), the surviving spouse receives a benefit of 60% of the final average compensation. Children receive \$100 each month until age 18. A \$1,500 funeral expense is also authorized by State statute payable by the system.

Post Retirement Adjustments

Effective October 1, 1996, the monthly pension was increased 10% if certain requirements were met. This was a one-time increase.

Each October 1, the benefits of all pension recipients increase 2% (not to exceed \$500). This non-compounding increase is paid to persons who have been retired 12 months.

A Pension Plus member who became a member of SPRS on or after June 10, 2012, does not receive an annual post-retirement increase.

Contributions

Member Contributions - Command Officers currently participate on a noncontributory basis. Effective October 1, 2012, troopers and sergeants hired before June 10, 2012 began contributing 1% of their compensation. Effective October 1, 2013 troopers and sergeants hired before June 10, 2012 began contributing 2% of their compensation. Troopers hired on or after June 10, 2012 contribute 4% of their compensation as described below. Under certain circumstances, defined benefit plan, members may contribute to the System for the purchase of creditable service, such as military, maternity or paternity leave, Peace Corps or VISTA service. Pension Plus plan members are only eligible to receive active duty military service. If a member terminates employment before a retirement benefit is payable, the member's contribution and interest on deposit are available to be refunded. If the member dies before being vested, the member's contribution and interest are refunded to the designated beneficiaries.

Pension Plus members who became members of SPRS on or after June 10, 2012, contribute 4% of gross wages for the pension component of their plan. An additional, optional, 4% contribution of gross wages is withheld for the savings component of their plan. The first 2% of employee contributions are directed to the member's Personal Heathcare Fund and receive an employer match of 100% up to a maximum of 2%. The next 2% employee contributions are identified as retirement savings and receive an employer match of 50% up to a maximum of 1%. These members will also receive a credit into a health reimbursement account (HRA) at termination if they have at least 10 years of service at termination. The credit will be up to \$2,000 for participants.

Notes to Basic Financial Statements (continued)

<u>Employer Contributions</u> - The statute requires that the employer contribute to finance the benefits of plan members. These employer contributions are determined annually by the System's actuary and are based upon level-percent-of-payroll funding principles so that the contribution rates do not have to increase over time. A chart showing the employer contribution rates is included on the Schedule of Additions by Source in the Statistical Section.

For a Pension Plus member who became a member of SPRS on or after June 10, 2012, there is an employer match for retirement of 100% of the first 2% of employee deferrals for retiree healthcare up to a maximum employer contribution of 2%. In addition employers match 50% of the next 2% of employee deferrals, up to a maximum employer contribution of 1%.

Deferred Retirement Option Plan

Public Act 83 of 2004 amended the State Police Retirement Act to create a Deferred Retirement Option Plan (DROP) for members with 25 years of service. This benefit program allows state police who are eligible to retire to defer their retirement and keep working for up to six years. The participant's pension amount is calculated on the day before the DROP period starts, and a percentage of the equivalent monthly pension is credited to an interest-bearing account in the participant's name. The DROP balance will be available at the time their DROP participation ends. At this time, only Defined Benefit members are eligible for DROP. The balance at the end of the fiscal year for the DROP accounts was \$44.6 million.

Banked Leave Time

Public Act 50 of 2004 amended the State Police 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

Introduction

Benefit provisions of the postemployment benefit plan are established by State statute, which may be amended. Public Act 182 of 1986, as amended, establishes eligibility and benefit provisions for the OPEB plan. Defined benefit plan members are eligible to receive health, prescription drug, dental, and vision coverage on the first day they start receiving pension benefits (this benefit does not apply to Pension Plus members). There are no ad hoc or automatic increases. The State Police Retirement Act requires joint authorization by DTMB and the Civil Service Commission to make changes to retiree medical benefit plans.

Under the Michigan State Police Retirement Act, all defined benefit retirees have the option of continuing health, dental, and vision coverage. Retirees with this coverage contribute 5%, 10%, and 10% of the monthly premium amount for the health, dental, and vision coverage, respectively. The State funds 95% of the health and 90% of the dental and vision insurance. The employer payroll contribution rate to provide these benefits was 40.16% for fiscal year 2015.

The State Health Plan PPO is by far the most often selected health care option. This plan includes comprehensive coverage traditionally referred to as basic and major medical, with full coverage for most services received in-network after an annual deductible is met. Preventive services are not subject to a deductible and are fully covered if received in-network subject to an annual maximum. Both retail and mail order prescription drug coverage is included. Retiree health, dental, and vision plan benefits have generally matched those in place for active employees.

Retirees are also 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 the age of 23. Premiums are fully paid by the State.

Notes to Basic Financial Statements (continued)

Personal Healthcare Fund

A Pension Plus member who became a member of SPRS on or after June 10, 2012 will be enrolled into a Personal Healthcare Fund (PHF), which is a separate account within the State of Michigan 401(k) and 457 Plan. The first optional 2% of their contributions plus their employer match are directed into the PHF. These members will also receive a credit into a health reimbursement account (HRA) at termination if they have at least 10 years of service at termination. The credit will be up to \$2,000 for participants.

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

| Health, Dental, and Vision Plans | | 2015 |
|--------------------------------------|----|--------|
| Eligible participants | | 2,786 |
| Participants receiving benefits: | | |
| Health | | 2,653 |
| Dental | | 2,644 |
| Vision | | 2,649 |
| Expenses for the year (in thousands) | \$ | 33,080 |
| Employer payroll contribution rate | 4 | 0.16% |

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.

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 31 and in the Required Supplementary Information on page 43.

Reserves

Public Act 182 of 1986, 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 182 of 1986, as amended. The reserves are described below and details are provided in the supporting schedules.

Reserve for Employee Contributions - Command Officers currently participate on a noncontributory basis. Effective October 1, 2012, troopers and sergeants hired before June 10, 2012 began contributing 1% of their compensation. Effective October 1, 2013 troopers and sergeants hired before June 10, 2012 began contributing 2% of their compensation. Troopers hired on or after June 10, 2012 contribute 4% of their compensation. 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 reserve. At September 30, 2015, the balance in this reserve was \$6.9 million.

Notes to Basic Financial Statements (continued)

<u>Reserve for Employer Contributions</u> - All employer contributions are credited to this reserve. Interest from the Reserve for Undistributed Investment Income 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 \$118.5 million.

Reserve for Retired Benefit Payments - This represents the reserve 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 retirees, reduce this reserve. At the end of each fiscal year, an amount is transferred from the Reserve for Employer Contributions to bring the reserve into balance with the actuarial present value of retirement allowances. Also included are reserves for casualty experience (injury or death of a member, or vested former member). The initial actuarial casualty valuation determined the full funding reserve requirements to be allocated from assets of the reserve. All retiree casualty payments are made from this reserve. At September 30, 2015, the balance in this reserve was \$1,296.3 million.

<u>Reserve for Undistributed Investment Income</u> - 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 balance of this reserve was (\$188.3) million.

Reserve for Health (OPEB) Related Benefits - This reserve is credited with member 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, in fiscal year 2015, 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 \$94.8 million.

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.

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 "antialienation" 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 assets 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.

Notes to Basic Financial Statements (continued)

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.

Costs 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. The System does not have equipment that falls within these parameters.

Related Party Transactions

<u>Leases and Services</u> - 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 |
|-----------------------|----------|
| Building Rentals | \$ 9,703 |
| Technological Support | 111,278 |
| Attorney General | 20,449 |
| Investment Services | 385,054 |
| Personnel Services | 314,918 |

<u>Cash</u> - At September 30, 2015, the System had \$4.7 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. Losses from these activities amounted to \$452 for the year ended September 30, 2015.

NOTE 3 – CONTRIBUTIONS AND FUNDED STATUS

Contributions

Command officers currently participate in the System on a noncontributory basis. Effective October 1, 2012, troopers and sergeants hired before June 10, 2012, began contributing 1% of their compensation. Effective October 1, 2013, they began contributing 2% of their compensation. Troopers hired on or after June 10, 2012 contribute 4% of their compensation. Under certain circumstances, members may contribute to the System for the purchase of creditable service, such as military service or maternity leave. The State is required by Public Act 182 of 1986, as amended, to contribute amounts necessary to finance the benefits of its employee and retiree OPEB. Contribution provisions are specified by State statute and may be amended only by action of the State Legislature.

Notes to Basic Financial Statements (continued)

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 benefits, the unfunded (overfunded) actuarial accrued liability as of the September 30, 2015 valuation. The following schedule summarizes pension contribution rates in effect for fiscal year 2015.

Pension Contribution Rates

| Benefit Structure | Member | Employer |
|----------------------|--------|----------|
| Non Command Officers | 2.00 % | 62.84 % |
| Command Officers | 0.00 | 64.29 |
| Pension Plus | 4.00 | 56.67 |

Actual employer contributions for OPEB were \$45.8 million for fiscal year 2015. The fiscal year 2015 annual covered payroll is not yet available. Required employer contributions, based on previous year actuarial valuations, for OPEB included:

- 1. \$7.8 million for fiscal year 2015, for the normal cost of OPEB representing 7.0% (before reconciliation) of annual covered payroll for fiscal year 2014.
- 2. \$39.8 million for fiscal year 2015, for amortization of unfunded actuarial accrued liability representing 35.4% (before reconciliation) of annual covered payroll for fiscal year 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 year's contribution, and is not recognized as a payable or receivable in the accounting records.

Funded Status - Other Postemployment Benefits

For fiscal year 2014, the actuarial accrued liability (AAL) for OPEB was \$637.4 million, and the actuarial value of assets was \$77.7 million resulting in an unfunded actuarial accrued liability (UAAL) of \$559.7 million and a funded ratio of 12.2%. The covered payroll (annual payroll of active employees covered by the plan) was \$112.5 million, and the ratio of the UAAL to the covered payroll was 497.7%.

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).

Notes to Basic Financial Statements (continued)

Net Pension Liability (In Thousands)

| Total Pension Liability | \$ 1,843,611 |
|---|-----------------|
| Plan Fiduciary Net Position | 1,233,405 |
| Net Pension Liability | \$ 610,206 |
| Plan Fiduciary Net Position as a Percentage | |
| of the Total Pension Liability | 66.90% |
| Net Pension Liability as a Percentage | |
| of Covered Payroll | 533.97% |
| Total Covered Payroll | \$ 114,278 |

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 Pools | 16.0 | 7.2 |
| Fixed Income Pools | 10.5 | 0.9 |
| Real Estate and 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 fiscal year ended September 30, 2015, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 1.92%. 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 (7.0% for the Pension Plus Plan). This discount rate was based on the long term expected rate of return on pension plan investments of 8.0% (7.0% for the Pension Plus Plan). 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.

Notes to Basic Financial Statements (continued)

Sensitivity of the Net Pension Liability to the Discount Rate Assumption

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% (7.0% for Pension Plus Plan), 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:

| | Current Discount | | | | | | | | | |
|-------------------------------|----------------------------|---------|-----------------------------|---------|----------------------------|---------|--|--|--|--|
| | 1% Decrease 7.0% / 6.0% | | Rate Assumption 8.0% / 7.0% | | 1% Increase 9.0% / 8.0% | | | | | |
| | | | | | | | | | | |
| Net Pension Liability/(Asset) | \$ | 807,835 | \$ | 610,206 | \$ | 443,990 | | | | |

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 performed as 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 trends. 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 (RSI) following the notes to the financial statements, present multi-year trend information about whether the actuarial value of plan net position 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 the employer 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.

Notes to Basic Financial Statements (continued)

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:

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 22 years (1)

Asset Valuation Method - OPEB Market

Actuarial Assumptions:

Pension and OPEB

Wage Inflation Rate 3.5%

Investment Rate of Return - Pension

Non Pension Plus Plan
Pension Plus Plan
7.0%
Investment Rate of Return - OPEB
8.0%

Projected Salary Increases 3.5% - 93.50%, including wage inflation at 3.5% Cost-of-Living Pension Adjustments 2% Annual Non-Compounded with Maximum Annual

Increase of \$500 for those eligible (2)

Healthcare Cost Trend Rate 9.0% Year 1 graded to 3.5% Year 10

Mortality RP-2000 Male and Female Combined Healthy Life Mortality Table, adjusted for mortality

improvements to 2030 for males and to 2015 for females, using projection scale BB. For retirees,

100% of the table rates were used. For active members, the table is adjusted for mortality improvements to 2030 for males and to 2020 for females, 50% of the table rates were used.

Other Assumptions OPEB only⁽²⁾:

Opt Out Assumption 6% of eligible participants are assumed to opt out of the retiree

health plan

Survivor Coverage 100% of male retirees and 100% of female retirees are assumed

to have coverage continuing after the retiree's death when 2-

person coverage was assumed to be elected

Coverage Election at Retirement 85% of male and 70% 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 an 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 June 10, 2012.

Notes to Basic Financial Statements (continued)

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.

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 derivatives 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 increases and decreases 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 thousands):

| 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 % | \$ 278.5 | \$ (2.0) | \$ (12.7) | | |
| Option Contracts Equity Investments | 0.0 | 4,706.8 | 13.0 | (103.4) | | |
| Swap Agreements International Equity Investments | 1.9 | 29,893.4 | 24,660.1 | (1,324.9) | \$ (72.9) | \$ 790.4 |
| Swap Agreements Equity Investments | 0.0 | 31,048.4 | (623.0) | (1,326.8) | 434.9 | |

Notes to Basic Financial Statements (continued)

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

Domestic Equity Pool swap agreements provide that the System will pay interest quarterly or annually over the term of the swap agreements, interest indexed to the LIBOR, adjusted for an interest rate spread, on the notional amount stated in the agreements. Domestic equity swap agreement maturity dates range from October 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 years, 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

Notes to Basic Financial Statements (continued)

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 \$78,481,067. The fair value of assets held in the dedicated collateral account at the custodian for the System as of September 30, 2015 was \$78,492,737. The carrying amount, which is the fair value, of securities on loan for the System as of September 30, 2015 was \$77,191,039.

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 the 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 borrowers' 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 non-investment grade securities may be acquired in compliance with parameters set for 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.

Notes to Basic Financial Statements (continued)

Rated Debt Investments (in thousands) As of September 30, 2015

| Investment Type | Fa | ir Value | S&P | Fa | ir Value | Moody's |
|---|----|-------------------|----------|----|----------|-----------|
| Short Term | \$ | 58,540 | A-1 | \$ | 58,540 | P-1 |
| Government Securities | | | | | | |
| U.S. Agencies - Sponsored | | - | AAA | | 3,818 | Aaa |
| | | 3,818 | AA | | - | Aa |
| Corporate Bonds & Notes | | | | | | |
| | | 3,007 | AAA | | 4,875 | Aaa |
| | | 8,895 | AA | | 5,369 | Aa |
| | | 35,612 | A | | 30,195 | A |
| | | 33,163 | BBB | | 41,095 | Baa |
| | | 8,745 | BB | | 9,477 | Ba |
| | | 10,341 | В | | 11,812 | В |
| | | 2,880 | CCC | | 3,434 | Caa |
| | | 311 | CC | | 1,564 | Ca |
| | | 2 | C | | 67 | C |
| | | 1,191 | D | | - | D |
| | | 13,150 | NR | | 9,410 | NR |
| International * | | | | | | |
| | | 3,909 | AA | | 4,580 | Aa |
| | | 9,017 | A | | 8,122 | A |
| | | 5,699 | BBB | | 7,155 | Baa |
| | | 2,327 | NR | | 1,096 | NR |
| Securities Lending Collateral Short Term | | , | | | Ź | |
| Short Term | | 2,144 | AAA | | 6,596 | 4.00 |
| | | , | | | , | Aaa Aa |
| | | 6,677 | AA BB | | 2,226 | |
| | | 2,309 | CCC | | 67,363 | Ba |
| | | | | | 2,309 | Caa |
| Total | \$ | 67,363 279,100 | NR | \$ | 279,100 | NR |

NR - not rated

<u>Custodial Credit Risk</u> - 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, are 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's 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.

<u>Concentration of Credit Risk</u> - 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.

^{*} International Investment types consist of domestic floating rate note used as part of a Swap strategy.

Notes to Basic Financial Statements (continued)

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.

<u>Interest Rate Risk - Fixed Income Investments</u> - 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 \$58.5 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

| | Fa | air Value | Effective Duration in Years |
|----------------------------|----|-----------|-----------------------------------|
| Government | | | |
| U. S. Treasury | \$ | 40,412 | 3.9 |
| U. S. Agencies - Backed | | 10,707 | 5.1 |
| U. S. Agencies - Sponsored | | 3,818 | 2.1 |
| Corporate | | 117,296 | 4.6 |
| International* | | | |
| Corporate | | 20,953 | 0.2 |
| Total | \$ | 193,185 | |

Debt Securities are exclusive of Securities Lending Collateral.

<u>Foreign Currency Risk</u> - 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 additions to these limits, the State Treasurer cannot acquire securities in companies that have active business operations in 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 \$212.7 million, which amounted to 16.1% of total investments (exclusive of securities lending collateral) of the System.

^{*}International contains Corporate Debt Securities as a part of their derivative strategies.

The interest rates reset on a quarterly basis for these securities.

Notes to Basic Financial Statements (continued)

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

Private Equity,

| Region | Country | Currency | Real & Infr | Estate, astructure | | Equity | | ed Income | Abso | rnational & lute Return lue in U.S. \$ * |
|------------------|----------------|----------|----------------|--------------------|---------|-----------------|---------|------------------|---------|--|
| | Country | Currency | raii vai | ue m U.S. \$ | rair va | aue III U.S. \$ | rair va | atue III U.S. \$ | raii va | iue III U.S. \$ |
| <u>AMERICA</u> | | | | | | | | | | |
| | Canada | Dollar | | | \$ | 81 | | | \$ | (55) |
| CA DIDDE AN | Mexico | Peso | | | | | \$ | 3,165 | | 122 |
| <u>CARIBBEAN</u> | G 11 1 | D 11 | | | | 500 | | | | 000 |
| EUROPE | Cayman Islands | Dollar | | | | 509 | | | | 982 |
| ECROTE | European Union | Euro | \$ | 15,718 | | 390 | | | | 1,040 |
| | Switzerland | Franc | Ψ | 15,716 | | 63 | | | | 303 |
| | Sweden | Krona | | | | 11 | | | | 234 |
| | Denmark | Krone | | | | 11 | | | | 93 |
| | Norway | Krone | | | | 9 | | | | - |
| | U.K. | Sterling | | 303 | | 1,733 | | | | 508 |
| PACIFIC | O.K. | Sterning | | 303 | | 1,733 | | | | 300 |
| | Australia | Dollar | | | | | | | | (58) |
| | China | Renminbi | | 1,255 | | | | | | - |
| | Hong Kong | Dollar | | 1,358 | | | | | | (236) |
| | Japan | Yen | | | | | | | | (250) |
| | New Zealand | Dollar | | | | | | | | (23) |
| | Philippines | Peso | | | | | | 1,482 | | - |
| | Singapore | Dollar | | | | | | | | 185 |
| | South Korea | Won | | | | | | | | 99 |
| AFRICA | | | | | | | | | | |
| | South Africa | Rand | | | | 14 | | | | |
| | Liberia | Dollar | | | | 28 | | | | |
| <u>OTHER</u> | | | | | | | | | | |
| | Various | | | 28,571 | | 2,783 | | 4,704 | | 147,536 |
| | Total | | \$ | 47,205 | \$ | 5,621 | \$ | 9,351 | \$ | 150,480 |

^{*} 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 0.6 years.

Notes to Basic Financial Statements (continued)

NOTE 6 – COMMITMENTS AND CONTINGENCIES

Under the Administrative Procedures Act, members may appeal a decision 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.

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 | Actua Valu Asse (a | e of ets | Actua Accru Liabil (AAL) En (b) | ied lity try Age | Unfun (Overfun Accrued I (UAA (b-a | nded) iability L) | Funded Ratio (a/b) | Pay | vered yroll c) | UAAL as a % of Covered Payroll ((b-a)/c) | <u> </u> |
|------------------------------|-----------------------------|----------|---|------------------------|--|-------------------------|--------------------------|-----|----------------------|--|----------|
| 2006 | | | \$ | 944.4 | \$ | 944.4 | 0.0 % | \$ | 115.9 | 814.9 % | 6 |
| 2007 | | | | 918.1 | | 918.1 | 0.0 | | 118.2 | 776.7 | |
| 2008 | | | | 963.0 | | 963.0 | 0.0 | | 120.7 | 797.7 | |
| 2009 | | | | 882.3 | | 882.3 | 0.0 | | 123.2 | 715.9 | |
| 2010 | | | | 1,055.9 | | 1,055.9 | 0.0 | | 118.6 | 890.5 | |
| 2011 | | | | 994.7 | | 994.7 | 0.0 | | 110.3 | 902.0 | |
| 2012 1 | \$ | 33.0 | | 599.1 | | 566.1 | 5.5 | | 104.9 | 539.8 | |
| 2013 | | 52.2 | | 603.0 | | 550.8 | 8.7 | | 110.2 | 499.6 | |
| 2014 | | 77.7 | | 637.4 | | 559.7 | 12.2 | | 112.5 | 497.7 | |

¹ Revised investment rate of return from 4% to 8% due to prefunding

Required Supplementary Information (continued)

Schedule of Changes in Net Pension Liability (in thousands)

| | F | iscal Year | | Fiscal Year |
|---|----------|------------|----|-------------|
| | | 2014 | | 2015 |
| Total Pension Liability | <u> </u> | | | _ |
| Service cost | \$ | 21,142 | \$ | 19,952 |
| Interest | | 134,317 | | 140,575 |
| Changes of benefit terms | | | | |
| Differences between expected and actual experience | | | | (6,998) |
| Changes of assumptions | | 36,683 | | |
| Benefit payments, including refunds of member contributions | | (110,551) | | (115,469) |
| Net Change in Total Pension Liability | | 81,591 | | 38,060 |
| Total Pension Liability - Beginning | | 1,723,960 | | 1,805,551 |
| Total Pension Liability - Ending (a) | \$ | 1,805,551 | \$ | 1,843,611 |
| Plan Fiduciary Net Position | | | | |
| Contributions - Employer | \$ | 58,391 | \$ | 70,351 |
| Contributions - Member | Ψ | 2,174 | Ψ | 2,677 |
| Net Investment Income | | 174,085 | | 26,236 |
| Miscellaneous Income | | , | | 3 |
| Benefit payments, including refunds of member contributions | | (110,551) | | (115,469) |
| Pension Plan Administrative Expense | | (575) | | (561) |
| Net Change in Plan Fiduciary Net Position | \$ | 123,524 | \$ | (16,762) |
| Plan Fiduciary Net Position - Beginning | \$ | 1,126,643 | \$ | 1,250,168 |
| Plan Fiduciary Net Position - Ending (b) | \$ | 1,250,168 | \$ | 1,233,405 |
| Net Pension Liability (Assets) - Ending (a) - (b) | \$ | 555,384 | \$ | 610,206 |
| Plan Fiduciary Net Position as a Percentage | | | | |
| of the Total Pension Liability | | 69.24% | | 66.90% |
| Covered Employee Payroll | \$ | 114,480 | \$ | 114,278 |
| Net Pension Liability as a Percentage | | | | |
| of Covered Employee Payroll | | 485.14% | | 533.97% |

Required Supplementary Information (continued)

Schedule of Net Pension Liability

| 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 | \$ 1,805,551,309 | \$ 1,250,167,799 | \$ 555,383,510 | 69.24% | \$ 114,479,912 | 485.14% |
| 2015 | 1,843,610,986 | 1,233,405,304 | 610,205,682 | 66.90 | 114,277,701 | 533.97 |

Schedules of Contributions

Pension Benefits

| Fiscal Year Ended Sept. 30 | Annual Required Contribution (ARC) ¹ | Actual Employer Contribution | Contribution Deficiency (Excess) | Covered Payroll | Actual Contribution as a % of Covered Payroll |
|----------------------------------|--|------------------------------------|----------------------------------|--------------------|---|
| 2006 | \$ 36,063,260 | \$ 26,103,923 | \$ 9,959,337 | \$ 115,894,652 | 22.52 % |
| 2007 | 32,386,761 | 24,323,324 | 8,063,437 | 118,209,401 | 20.58 |
| 2008 | 33,669,820 | 34,364,943 | (695,123) | 120,723,943 | 28.47 |
| 2009 | 36,697,604 | 35,434,912 | 1,262,692 | 123,237,957 | 28.75 |
| 2010 | 41,607,229 | 37,897,934 | 3,709,295 | 118,570,985 | 31.96 |
| 2011 | 47,247,573 | 38,573,946 | 8,673,627 | 110,279,709 | 34.98 |
| 2012 | 52,275,891 | 40,686,857 | 11,589,034 | 104,875,847 | 38.80 |
| 2013 | 57,667,657 | 49,004,314 | 8,663,343 | 110,244,195 | 44.45 |
| 2014 | 61,400,958 | 58,391,310 | 3,009,648 | 114,479,912 | 51.01 |
| 2015 | 63,271,128 | 70,351,036 | (7,079,908) | 114,277,701 | 61.56 |

¹ 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.

Other Postemployment Benefits

| Fiscal Year Ended Sept. 30 | Annual Required Contribution (ARC) | Actual Employer Contribution | Other Governmental Contribution | Percentage Contributed |
|----------------------------------|------------------------------------|------------------------------------|---------------------------------------|---------------------------|
| 2007 | \$ 59,691,819 | \$ 27,840,439 | | 46.6 % |
| 2008 | 59,027,965 | 29,131,474 | \$ 277,601 | 49.8 |
| 2009 | 63,928,600 | 29,841,208 | 371,752 | 47.3 |
| 2010 | 60,004,401 | 32,890,501 | 321,844 | 55.3 |
| 2011 | 73,690,143 | 31,627,140 | 3,643,725 | 47.9 |
| 2012 | 68,335,401 | 46,190,655 | 1,061,040 | 69.1 |
| 2013 1 | 46,803,163 | 42,858,381 | 2,800,949 | 97.6 |
| 2014 | 46,382,746 | 46,614,502 | 1,757,525 | 104.3 |
| 2015 | 47,673,754 | 45,848,019 | 1,873,602 | 100.1 |
| | | | | |

¹ Revised actuarial assumptions.

Required Supplementary Information (continued)

Schedule of Investment Returns

| Fiscal Year | Annual Return ¹ |
|-------------|-------------------------------|
| 2014 | 13.97% |
| 2015 | 1.92% |

¹ Annual money-weighted rate of return, net of investment expenses

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, only 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.

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

Note to Required Supplementary Information (continued)

Valuation:

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

Methods and Assumptions Used to Determine Contributions for Fiscal Year 2015:

Actuarial Cost Method Entry Age, Normal

Amortization Method Level Percent of Payroll, 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

(net of investment and administrative expenses)

- Non Pension Plus Plan 8.0%
- Pension Plus Plan 7.0%

Retirement Age Mortality Experience-based table of rates that are specific to the type of eligibility conditions. Post Retirement Mortality: RP-2000 Combined Healthy Life Mortality Table, adjusted for mortality improvements to 2030 using projection scale BB for males and adjusted for mortality improvements to 2015 using projection scale BB for females. Pre-Retirement for Mortality: 50% of the post retirement mortality table rates.

Supporting Schedules

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

| Personnel Services: | |
|--|-----------|
| Staff Salaries | \$ 150 |
| Retirement and Social Security | 46 |
| Other Fringe Benefits | 15 |
| Total | 212 |
| Professional Services: | |
| Accounting | 16 |
| Actuarial | 98 |
| Attorney General | 20 |
| Audit | 51 |
| Consulting | 5 |
| Medical | 5 |
| Total | 196 |
| Building Equipment: | |
| Building Rentals | 10 |
| Equipment Purchase, Maintenance, and Rentals | 4 |
| Total | 14 |
| Miscellaneous: | |
| Travel and Board Meetings | 1 |
| Office Supplies | 1 |
| Postage, Telephone, and Other | 23 |
| Printing | 4 |
| Technological Support | 111 |
| Total | 140 |
| Total Administrative and Other Expenses | \$ 561 |

Summary Schedule of OPEB Plan Administrative and Other Expenses For Fiscal Year Ended September 30, 2015

(in thousands)

| Staff Salaries | \$ 103 |
|--|-------------|
| Health Fees | 1,173 |
| Dental Fees | 95 |
| Vision Fees | 12 |
| Total Administrative and Other Expenses | \$ 1,384 |

Supporting Schedules (continued)

Schedule of Investment Expenses For Fiscal Year Ended September 30, 2015 (in thousands)

| Real Estate Operating Expenses | \$ | 27 |
|--|----|-------|
| Securities Lending Expenses | | 666 |
| Other Investment Expenses ¹ | | |
| ORS-Investment Expenses ² | | 385 |
| Custody Fees | | 28 |
| Management Fees | | 3,397 |
| Research Fees | | 83 |
| Total Investment Expenses | \$ | 4.587 |
| | - | -, |

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

Schedule of Payments for Professional Services For Fiscal Years Ended September 30, 2015 (in thousands)

| Accounting | \$ 16 |
|-----------------------|-----------|
| Actuary | 98 |
| Attorney General | 20 |
| Independent Auditors | 51 |
| Consulting | 5 |
| Medical | 5 |
| | _ |
| Total Payments | \$ 196 |

²Does not exclude Treasurer Civil Service fees recorded as a pass through in the Schedule of Investment Fees - State Treasury. As of September 30, 2015 fees totaled \$5,129.

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)

| Contributions Contributions Contributions Contributions Contributions Contributions Contributions Contributions Coher governmental government governm | | Employee Contributions | | Employee Contributions | | 1 0 | | Employee Contributions Employer | | | | | | Employer Contributions Pension Plus | |
|---|---|---------------------------|-------|-------------------------------|----------|-----|---------|---------------------------------|-------|--|--|--|--|---|--|
| Semployer contributions | | | | | | | | | | | | | | | |
| Net increase (decrease) in fair value of investments Interest, dividends, and other | Member contributions Employer contributions Other governmental contributions | \$ | Í | \$ | 889 | \$ | 67,856 | \$ | 2,495 | | | | | | |
| Net increase (decrease) in fair value of investments Interest, dividends, and other Investment expenses Real estate operating expenses Other investment expenses Securities lending activities: Securities lending income Securities lending expenses Net investment income (loss) Total additions 1,789 889 67,856 2,495 Deductions: Benefits paid to plan members and beneficiaries: Retirement benefits Health benefits Dental/vision benefits Refunds of contributions Administrative and other expenses Total deductions Net Increase (Decrease) Before Other Changes Interest allocation Interest allocation Interest allocation Interest allocation Interest allocation Interest pupp retirement Interest | Total contributions | | 1,789 | | 889 | | 67,856 | | 2,495 | | | | | | |
| Deductions: Benefits paid to plan members and beneficiaries: Retirement benefits Health benefits Dental/vision benefits Refunds of contributions 3 Administrative and other expenses Total deductions - 3 - | Net increase (decrease) in fair value of investments Interest, dividends, and other Investment expenses: Real estate operating expenses Other investment expenses Securities lending activities: Securities lending income Securities lending expenses Net investment income (loss) | | - | | <u>-</u> | | - | | - | | | | | | |
| Deductions: Benefits paid to plan members and beneficiaries: Retirement benefits Health benefits Dental/vision benefits Refunds of contributions 3 Administrative and other expenses Total deductions - 3 - | Total additions | | 1 789 | | 889 | | 67 856 | | 2 495 | | | | | | |
| Before Other Changes 1,789 886 67,856 2,495 Other Changes in Net Position: Interest allocation 101 3,741 197 Transfers upon retirement (221) (5,372) (5,372) Transfers of employer shares (120) - (1,631) 197 Net Increase (Decrease) in net position 1,668 886 66,225 2,692 Net Position Restricted for Pension Benefits and OPEB: 3,528 855 46,766 2,811 | Benefits paid to plan members and beneficiaries: Retirement benefits Health benefits Dental/vision benefits Refunds of contributions Administrative and other expenses | | | | | | | | | | | | | | |
| Interest allocation 101 3,741 197 Transfers upon retirement (221) (5,372) Transfers of employer shares (5,372) Total other changes in net position (120) - (1,631) 197 Net Increase (Decrease) in net position 1,668 886 66,225 2,692 Net Position Restricted for Pension Benefits and OPEB: 855 46,766 2,811 Beginning of Year 3,528 855 46,766 2,811 | | | 1,789 | | 886 | | 67,856 | | 2,495 | | | | | | |
| Net Position Restricted for Pension Benefits and OPEB: Beginning of Year 3,528 855 46,766 2,811 | Interest allocation Transfers upon retirement Transfers of employer shares | | (221) | | <u>-</u> | | (5,372) | | | | | | | | |
| Net Position Restricted for Pension Benefits and OPEB: Beginning of Year 3,528 855 46,766 2,811 | Net Increase (Decrease) in net position | | 1,668 | | 886 | | 66,225 | | 2,692 | | | | | | |
| End of Year \$ 5,196 \\$ 1,741 \\$ 112,991 \\$ 5,503 | Net Position Restricted for Pension Benefits and OPEB: | | 3,528 | | 855 | | 46,766 | | 2,811 | | | | | | |
| | End of Year | \$ | 5,196 | \$ | 1,741 | \$ | 112,991 | \$ | 5,503 | | | | | | |

Supporting Schedules (continued)

| Ве | tired enefit ments | Retired Benefit Payments Pension Plus | Ir | Undistributed Investment Income | | OPEB_ | | Total |
|----|--------------------------|---|----|---------------------------------------|----|--------------------------|----|---------------------------------|
| | | | | | \$ | 1,130 45,848 1,874 | \$ | 3,807 116,199 1,874 |
| | | | | | | 48,851 | | 121,880 |
| | | | \$ | 1,615 26,827 | | (315) 1,785 | | 1,301 28,612 |
| | | | | (25) (3,653) | | (2) (241) | | (27) (3,894) |
| | | | | 2,092 (620) | | 145 (46) | | 2,237 (666) |
| \$ | 3 | | | 26,236 | | 1,326 | | 27,562 12 |
| | 3 | | | 26,236 | | 50,186 | | 149,454 |
| | 115,466 | | | | | 29,110 2,587 | | 115,466 29,110 2,587 3 |
| | 115,466 | | | 561 561 | | 1,384 33,080 | | 1,945 149,110 |
| | (115,463) | | | 25,675 | | 17,106 | | 343 |
| | 188,709 221 5,372 | | | (192,748) | | | | |
| | 194,302 | | | (192,748) | | - | | - |
| | 78,840 | - | | (167,073) | | 17,106 | | 343 |
| 1 | ,217,478 | | | (21,271) | | 77,664 | | 1,327,832 |
| | ,296,318 | \$ - | \$ | (188,344) | \$ | 94,770 | \$ | 1,328,176 |

This page intentionally left blank.

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

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 & 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, CFA, CAIA (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.

Report on Investment Activity (continued)

Asset Allocation (Excludes Collateral on Loaned Securities)

| Investment Category | As of 9/30/15 Actual % | Five-Year Target % |
|--------------------------------------|---------------------------|--------------------|
| Domestic Equity Pools | 27.9 % | 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 | 14.7 | 15.5 |
| Short Term Investment Pools | 4.4 | 2.0 |
| TOTAL | 100.0 % | 100.0 % |

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 2.5% 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: 10.0%, 10.0%, and 6.6% respectively.

In the five years leading up to September 2014, 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.

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

Report on Investment Activity (continued)

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 these 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). They 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 | 42.7 |
| Total | 100.0 % |
| | |
| | |
| Large Cap | 65.3 % |
| Multi Cap | 25.0 |
| Mid Cap | 7.2 |
| Small Cap | 2.5 |
| Total | 100.0 % |

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

At the close of fiscal year 2015, the Domestic Equity pools represented 27.9% of total investments. The following summarizes the System's 2.3% ownership share of the Domestic Equity pools at September 30, 2015.

Report on Investment Activity (continued)

Domestic Equity Pools (in thousands)

| Short Term Pooled Investments | \$ 1,532 |
|----------------------------------|---------------|
| Equities | 368,261 |
| Market Value of Equity Contracts | (1,034) |
| Settlement Principal Payable | (503) |
| Settlement Proceeds Receivable | 495 |
| Accrued Dividends | 523 |
| Total | \$ 369,274 |

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.

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

Report on Investment Activity (continued)

The following summarizes the weightings of the pools as of September 30, 2015:

| Active | 47.2 % |
|-----------|---------|
| Passive | 52.8 |
| Total | 100.0 % |
| | |
| Developed | 82.0 % |
| Emerging | 18.0 |
| Total | 100.0 % |

The System's International Equity pools total rate of return was -8.8% for fiscal year 2015. This compared with -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 2.2% ownership share of the International Equity Pools at September 30, 2015:

International Equity Pools (in thousands)

| Short Term Pooled Investments | \$ 5,659 |
|----------------------------------|---------------|
| Equities | 157,466 |
| Fixed Income Securities | 20,953 |
| Market Value of Equity Contracts | (1,400) |
| Settlement Principal Payable | (79) |
| Accrued Dividends and Interest | 51 |
| Total | \$ 182,650 |

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 | 100.0 % |

Report on Investment Activity (continued)

The Private Equity pools had a return of 11.7% for the Pension Plan and OPEB 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 2.6% ownership share of the Private Equity pools at September 30, 2015:

Private Equity Pools (in thousands)

| Short Term Pooled Investments | \$ 3,272 |
|--------------------------------|---------------|
| Equities | 219,447 |
| Long Term Obligations | 144 |
| Settlement Proceeds Receivable | 131 |
| Accrued Interest | 10 |
| Total | \$ 223,004 |

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

| Multi-family apartments | 30.9 % |
|--------------------------------|---------|
| 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 | 100.0 % |
| | |

The Real Estate and Infrastructure pools generated a return of 11.1% for the Pension Plan and OPEB 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%.

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 2.2% ownership share of the Real Estate and Infrastructure pools at September 30, 2015:

Real Estate and Infrastructure Pools (in thousands)

| Short Term Pooled Investments | \$ 3,108 |
|-------------------------------|---------------|
| Real Estate Equities | 117,609 |
| Infrastructure Equities | 12,978 |
| Total | \$ 133,695 |

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 their investments by allocating their 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 2.2% ownership share of the Fixed Income pools at September 30, 2015:

Fixed Income Pools (in thousands)

| Short Term Pooled Investments | \$ 2,341 |
|-------------------------------|---------------|
| Fixed Income Securities | 158,195 |
| Accrued interest | 777 |
| Total | \$ 161,313 |

Absolute Return Pools

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

Report on Investment Activity (continued)

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 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 14.7% of total investments. The following summarizes the System's 2.2% ownership share of the Absolute Return Pools at September 30, 2015:

Absolute Return Pools (in thousands)

| Total | \$ 194,864 |
|--------------------------------|---------------|
| Accrued Interest and Dividends | 64 |
| Long Term Obligations | 2,242 |
| Equities | 186,102 |
| Short Term Pooled investments | \$ 6,456 |

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:

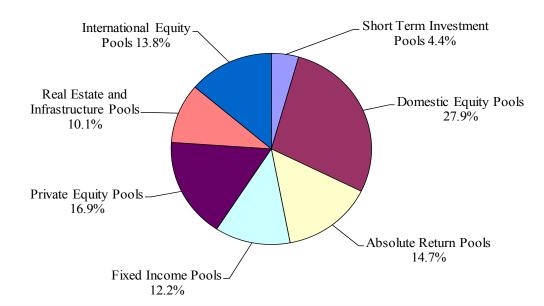
- Obligations of the United States or its agencies.
- Banker's acceptances, commercial accounts, certificates of deposit or depository receipts.
- Repurchase agreements for the purchase of securities issued by the US government or its agencies.
- Commercial paper rated at the time of purchase within 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.

At the close of fiscal year 2015, the Short Term Investment pools represented 4.4% of total investments. The following summarizes the System's 2.5% ownership share of the Short Term Investment pools at September 30, 2015:

Short Term Investment Pools (in thousands)

| Total | \$ 57,681 |
|-------------------------------|--------------|
| Accrued Interest | 41 |
| Fixed Income Securities | 20,831 |
| Short Term Pooled Investments | \$ 36,809 |

<u>Asset Allocation – Security Type Only</u>



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

| | | Annualized Rate of Return ¹ | | | |
|--|--------------|--|---------|----------|--|
| Investment Category | Current Year | 3 Years | 5 Years | 10 Years | |
| Total Portfolio | 2.5 % | 10.0 % | 10.0 % | 6.6 % | |
| Domestic Equity Pools | (0.8) | 13.2 | 13.1 | 7.1 | |
| S&P 1500 Index | (0.3) | 12.4 | 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 Funds Cons 1 month lag | 1.9 | 4.9 | 3.4 | | |
| Total Real Return and Opportunistic | 7.3 | 12.5 | 10.0 | | |
| 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%).

OPEB Investment Results for the Period Ending September 30, 2015

| | | Annualized Rate of Return ¹ |
|---|--------------|--|
| Investment Category | Current Year | 3 Years |
| Total Portfolio | 2.5 % | 9.6 % |
| Domestic Equity Pools | (0.8) | 13.3 |
| 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 Intrastructure Pools | 11.1 | 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 Funds 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 10/01/10 to 6/30/14, index 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.

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%).

Largest Assets Held¹

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

| Rank | Shares | Stocks | Market Value |
|------|---------|-----------------------------|------------------|
| 1 | 126,665 | Apple Inc. | \$ 13,971,165 |
| 2 | 153,647 | Wells Fargo & Co. | 7,889,752 |
| 3 | 132,455 | Aflac Inc. | 7,699,589 |
| 4 | 71,078 | Gilead Sciences Inc. | 6,979,101 |
| 5 | 76,364 | Union Pacific Corp. | 6,751,326 |
| 6 | 48,306 | Home Depot Inc. | 5,578,832 |
| 7 | 122,177 | Verizon Communications Inc. | 5,315,905 |
| 8 | 117,356 | Microsoft Corp. | 5,194,184 |
| 9 | 82,220 | JP Morgan Chase & Co. | 5,012,980 |
| 10 | 7,411 | Google Inc. | 4,731,150 |

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

| Rank | Par Amount | Description | Market Value |
|------|--------------|--|--------------|
| 1 | \$ 4,326,772 | US Treasury N/B 1.625% Due 07-31-2019 | \$ 4,401,024 |
| 2 | 3,781,377 | US Treasury N/B 2.125% Due 05-15-2025 | 3,804,126 |
| 3 | 2,773,572 | US Treasury N/B 2.125% Due 06-30-2022 | 2,845,801 |
| 4 | 2,335,401 | US Treasury N/B 2.000% Due 08-15-2025 | 2,323,056 |
| 5 | 2,218,858 | US Treasury N/B 1.625% Due 06-30-2019 | 2,258,063 |
| 6 | 2,218,858 | US Treasury N/B 1.000% Due 09-15-2017 | 2,234,487 |
| 7 | 2,234,605 | Barclays Bank PLC 1.005% FRN Due 01-22-2019 | 2,233,068 |
| 8 | 2,218,858 | US Treasury N/B 0.875% Due 10-15-2017 | 2,228,046 |
| 9 | 1,694,930 | TSY Infl IX N/B 0.125% Due 04-15-2019 | 1,689,148 |
| 10 | 1,407,801 | Suntrust Banks Inc. 0.9941% FRN Due 04-29-2019 | 1,386,735 |

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. 63.43% of the total investment portfolio is managed by fully discretionary outside advisors. The Michigan Department of Treasury's cost of operations applicable to the retirement system for the fiscal year amounted to \$390 thousand or eight and one tenth basis points (0.081%) of the market value of the Assets under Management by 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

| | As | ssets under | | | | |
|---------------------------------|-----|-------------|----------------|-------|--------------|--|
| | M | anagement | | Fees | Basis | |
| Investment Managers' Fees: | (in | thousands) | (in thousands) | | Points * | |
| State Treasurer | \$ | 483,629 | \$ | 390 | 8.1 | |
| Outside Advisors for | | | | | | |
| Fixed Income | | 57,619 | | 206 | 35.8 | |
| Absolute Return | | 193,887 | | 393 | 20.3 | |
| International Equity | | 148,750 | | 309 | 20.8 | |
| Domestic Equity | | 81,896 | | 219 | 26.7 | |
| Private Equity | | 223,004 | | 1,599 | 71.7 | |
| Real Estate/Infrastructure | | 133,695 | | 671 | 50.2 | |
| Total | \$ | 1,322,480 | \$ | 3,787 | | |
| | | | | | | |
| Other Investment Services Fees: | | | | | | |
| Assets in Custody | \$ | 1,317,815 | \$ | 111 | | |
| Securities on Loan | | 77,191 | | 216 | | |

^{*}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.

Schedule of Investment Commissions

| | Fiscal Year Ended September 30, 2015 | | | | | | |
|---------------------------------------|--------------------------------------|--|------------------------------------|---------------------------------|------------------------------------|-----------------------------|--------------------------------|
| | Actual Commissions Paid ¹ | Actual Number of Shares Traded ¹ | Average Commission Per Share | Estimated Trade Costs Per Share | Estimated Research Costs Per Share | Estimated Trade Costs | Estimated Research Costs |
| Investment Brokerage Firms: | | | | | | | |
| Banc Of America Securities LLC | \$ 1,259 | 34,138 | \$ 0.04 | \$ 0.01 | \$ 0.03 | \$ 342 | \$ 1,024 |
| BNY Convergex Execution Solutions LLC | 838 | 41,891 | 0.02 | 0.01 | 0.01 | 420 | 420 |
| BTIGLLC | 34,179 | 3,146,360 | 0.01 | 0.01 | - | 31,463 | - |
| Capital Institutional Services Inc. | 4,193 | 263,572 | 0.02 | 0.01 | 0.01 | 2,636 | 2,636 |
| Citigroup Global Markets Inc. | 1,539 | 76,965 | 0.02 | 0.01 | 0.01 | 769 | 769 |
| Cowen & Company LLC | 5,095 | 254,713 | 0.02 | 0.01 | 0.01 | 2,547 | 2,547 |
| Credit Suisse Securities LLC | 13,046 | 679,968 | 0.02 | 0.01 | 0.01 | 6,800 | 6,800 |
| Deutsche Bank - Alex Brown | 61 | 2,026 | 0.03 | 0.01 | 0.02 | 20 | 41 |
| Drexel Hamilton | 2,194 | 309,619 | 0.01 | 0.01 | - | 3,097 | - |
| J. P. Morgan Securities Inc. | 7,565 | 924,504 | 0.01 | 0.01 | - | 9,245 | - |
| Mischler Financial Group Inc. | 3,213 | 160,656 | 0.02 | 0.01 | 0.01 | 1,606 | 1,606 |
| Morgan Stanley & Co. Inc. | 12,611 | 628,375 | 0.02 | 0.01 | 0.01 | 6,283 | 6,283 |
| OTALLC | 4,270 | 146,115 | 0.03 | 0.01 | 0.02 | 1,461 | 2,923 |
| Piper Jaffray & Co. | 155 | 15,385 | 0.01 | 0.01 | - | 154 | - |
| Stifel, Nicolaus & Co. Inc. | 525 | 13,144 | 0.04 | 0.01 | 0.03 | 132 | 394 |
| UBS Securities LLC | 80 | 2,013 | 0.04 | 0.01 | 0.03 | 20 | 61 |
| Total | \$ 90,823 | 6,699,444 | \$ 0.02 | \$ 0.01 | \$ 0.01 | \$ 66,995 | \$ 25,504 |

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 Summary Fiscal Year Ended September 30, 2015

| | Market Value ¹ | Percent of Total Market Value | Investment & Interest Income ² | Percent of Total Investment & Interest Income |
|--------------------------------------|---------------------------|----------------------------------|---|---|
| Fixed Income Pools | \$ 161,312,824 | 12.2 % | \$ 4,622,925 | 17.2 % |
| Domestic Equity Pools | 369,273,912 | 27.9 | (1,895,549) | (7.1) |
| Real Estate and Infrastructure Pools | 133,695,358 | 10.1 | 13,299,366 | 49.6 |
| Private Equity Pools | 223,003,693 | 16.9 | 22,342,111 | 83.3 |
| International Equities Pools | 182,649,806 | 13.8 | (17,625,893) | (65.7) |
| Absolute Return Pools | 194,863,735 | 14.7 | 5,961,981 | 22.2 |
| Short Term Investment Pools | 57,681,450 | 4.4 | 112,750 | 0.4 |
| Total | \$ 1,322,480,779 | 100.0 % | \$ 26,817,691 | 100.0 % |

 $^{^{\}rm 1}$ Market value excludes \$78,492,737 in securities lending collateral for fiscal year 2015.

² Total Investment & Interest Income excludes net security lending income of \$1,570,585 and unrealized gain of \$3,094,288 for securities lending

³ Short term investment pools market value includes \$4,665,643 of equity in common cash.

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

Actuary's Certification

GRS

Gabriel Roeder Smith & Company Consultants & Actuaries

One Towne Square Suite 800 Southfield, MI 48076-3723 248.799.9000 phone 248.799.9020 fax www.gabrielroeder.com

October 23, 2015

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

Ladies and Gentlemen:

The basic financial objective of the Michigan State Police Retirement System (SPRS) 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 these 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 SPRS 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.

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 OPEB Rolls

Statistical Section

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

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.

Gabriel Roeder Smith & Company

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 SPRS 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

Louis Gates

LMG:MDD:mrb

Mita D. Drazilov, ASA, MAAA

Mita Drajilor

Gabriel Roeder Smith & Company

Summary of Actuarial Assumptions and Methods

- 1. The investment return rate used in the valuations was 8% per year net of expenses (7.0% for the Hybrid Plan), compounded annually. This rate of return is not the assumed real rate of return. Considering other financial assumptions, this 8% investment return rate translates to an assumed 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 2030 using projection scale BB for males and adjusted for mortality improvements to 2015 using projection scale BB for females. Adopted 2014.
- 3. Sample probabilities of retirement with an age and service allowance are shown in Schedule 1 on the next page. Adopted 2014.
- 4. Sample probabilities of withdrawal from service and disability, together with individual pay increase assumptions, are shown in Schedule 2 on the next page. Adopted 2010.
- 5. Total active member payroll is assumed to increase 3.5% per year. This represents the portion of the individual pay increase assumptions attributable to inflation. In effect, this assumes no change in the number of active members. Adopted 1998.
- 6. An individual entry age actuarial cost method of valuation was used in determining actuarial liabilities and normal cost. Unfunded actuarial accrued liabilities, including actuarial gains and losses, are financed over a declining 40-year period for years beginning October 1, 1986. Adopted or readopted 1996.
- 7. The Department of Technology, Management & Budget approved the use of market value of assets as of September 30, 2006, for actuarial 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 & 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 the actuarial assumptions then in use. Adopted 2014.
- 11. Gabriel Roeder Smith & Co. was awarded the actuarial and consulting services contract beginning October 4, 2006.

Summary of Actuarial Assumptions and Methods (continued)

SCHEDULE 1

Percent of Eligible Active Members Retiring Within Next Year¹

Retirement After 25 or More Years of Service (Non Pension Plus Plan)

| <u>Service</u> | % Retiring |
|----------------|------------|
| 25-27 | 60 % |
| 28-44 | 35 |
| 45 and over | 100 |

Retirement at or After Age 50 with 10 years of Service (Non Pension Plus Plan), or After age 55 with 25 Years of Service (Pension Plus), or After Age 60 with 10 years of service (Pension Plus Plan)

| <u>Age</u> | % Retiring |
|-------------|------------|
| 50 | 15 % |
| 51-53 | 25 |
| 54-59 | 35 |
| 60 | 40 |
| 61-66 | 50 |
| 67 and over | 100 |

¹ Of those Non Pension Plus Plan members assumed to retire with 25 or more years of service, based on the percents above, 70% are assumed to elect the DROP and 30% are assumed to retire without the DROP.

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 |
|----------------|---------------------|---|--|----------|---|
| All | 0 | 10.00 % | | | 93.50 % |
| | 1 | 8.00 | | | 21.50 |
| | | | Duty | Non-duty | |
| 20 | 2 & Over | 1.35 | 0.20 % | 0.00 % | 9.40 |
| 25 | " | 1.22 | 0.20 | 0.00 | 9.40 |
| 30 | " | 1.02 | 0.20 | 0.03 | 6.18 |
| 35 | " | 0.84 | 0.20 | 0.06 | 4.82 |
| 40 | " | 0.74 | 0.20 | 0.15 | 4.38 |
| 45 | " | 0.64 | 0.20 | 0.33 | 4.29 |
| 50 | " | 0.60 | 0.20 | 0.57 | 4.18 |
| 55 | " | 0.60 | 0.20 | 0.81 | 4.06 |
| 60 & Over | " | 0.60 | 0.20 | 1.14 | 4.02 |

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 | 1,708 | \$ 117,648,748 | \$ 68,881 | 5.3 % | 38.3 | 12.0 |
| 2006 | 1,678 | 115,894,652 | 69,067 | 0.3 | 39.2 | 12.9 |
| 2007 | 1,620 | 118,209,401 | 72,969 | 5.6 | 40.0 | 13.6 |
| 2008 | 1,660 | 120,723,943 | 72,725 | (0.3) | 40.1 | 13.8 |
| 2009 | 1,655 | 123,237,957 | 74,464 | 2.4 | 41.0 | 14.6 |
| 2010 | 1,556 | 118,570,985 | 76,202 | 2.3 | 41.8 | 15.5 |
| 2011 | 1,451 | 110,279,709 | 76,003 | (0.3) | 41.7 | 15.4 |
| 2012 | 1,426 | 104,875,847 | 73,545 | (3.2) | 41.2 | 14.9 |
| 2013 | 1,521 | 110,244,195 | 72,481 | (1.4) | 39.8 | 13.3 |
| 2014 | 1,603 | 112,453,562 | 70,152 | (3.2) | 38.8 | 12.3 |

Excludes DROP program participants who are still actively employed.

Schedule of Active Member OPEB Valuation Data

| Valuation Date Sept. 30 | Number | Reported Annual Payroll | Average Annual Pay | ncrease ecrease) | Average Age | Average Service |
|-------------------------|--------|-------------------------------|--------------------------|---------------------|----------------|--------------------|
| 2012 | 1,426 | \$ 104,875,847 | \$ 73,545 | | 41.2 | 14.9 |
| 2013 | 1,521 | 110,244,195 | 72,481 | (1.5) % | 39.8 | 13.3 |
| 2014 | 1,603 | 112,453,562 | 70,152 | (3.2) | 38.8 | 12.3 |

Actuarial Valuation Data (continued)

Schedule of Changes in the Retirement Rolls

| Year | Ado | ded to | Rolls ¹ | | | Removed from Rolls ¹ | | Rolls-End of Year | | | | Increase | | verage |
|-----------------|-----|--------|--------------------|-----|-------|---------------------------------|-------|-------------------|-----------|------------|-----|----------|--|--------|
| Ended | | A | Annual | | | Annual | | 1 | Annual | in Annual | A | Annual | | |
| Sept. 30 | No. | All | owances* | No. | A | llowances* | No. | All | lowances* | Allowances | All | owances | | |
| 2005 | 66 | | | 37 | | | 2,726 | \$ | 80,669 | 3.3 % | \$ | 29,592 | | |
| 2006 | 67 | | | 81 | | | 2,712 | | 82,255 | 2.0 | | 30,330 | | |
| 2007 | 61 | | | 40 | | | 2,733 | | 85,416 | 3.8 | | 31,253 | | |
| 2008 | 62 | \$ | 2,964 | 59 | \$ | 1,317 | 2,736 | | 87,063 | 1.9 | | 31,821 | | |
| 2009 | 51 | | 2,692 | 66 | | 1,471 | 2,721 | | 88,284 | 1.4 | | 32,446 | | |
| 2010 | 110 | | 5,572 | 69 | | 1,586 | 2,762 | | 92,270 | 4.5 | | 33,407 | | |
| 2011 | 157 | | 7,362 | 62 | | 1,522 | 2,857 | | 98,110 | 6.3 | | 34,340 | | |
| 2012 | 93 | | 5,115 | 37 | | 972 | 2,913 | | 102,253 | 4.2 | | 35,102 | | |
| 2013 | 105 | | 5,206 | 65 | 1,704 | | 2,953 | 105,755 | | 105,755 | | 3.4 | | 35,813 |
| 2014 | 95 | | 4,797 | 85 | | 2,340 | 2,963 | | 108,212 | 2.3 | | 36,521 | | |

^{*}In thousands of dollars.

Schedule of Changes in the OPEB Rolls

| Year | Ado | led to R | tolls ¹ | Remove | ed fron | 1 Rolls ¹ | Rolls- | -End | of Year | Increase | Average | | |
|-------------------|-----------------|----------|--------------------|------------------------|---------|----------------------|------------------------|------|-------------------------|----------------------|-----------|--|--|
| Ended Sept. 30 | No. Allowances* | | No. | Annual No. Allowances* | | No. | Annual No. Allowances* | | in Annual Allowances | Annual Allowances | | | |
| 2011 | | | | | | | 2,566 | \$ | 33,561 | | \$ 13,079 | | |
| 2012 | 86 | \$ | 1,340 | 31 | \$ | 976 | 2,621 | | 33,926 | 1.1 % | 12,944 | | |
| 2013 | 90 | | 1,408 | 58 | | 2,397 | 2,653 | | 32,938 | (2.9) | 12,415 | | |
| 2014 | 80 | | 1,043 | 79 | | 1,476 | 2,654 | | 32,504 | (1.3) | 12,247 | | |

^{*} In thousands of dollars.

Notes:

No. Refers to the number of retiree health contracts.

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

Annual allowances removed from rolls includes decreases due to contract changes.

¹ Annual allowance amounts are not avaiable for fiscal years 2007 and prior.

¹ Annual allowance amounts are not available for fiscal years 2011 and prior.

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 that has been 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 is indicative of the System's policy of following the discipline of level percent of payroll financing.

Pension Benefits (\$ in thousands)

| | | Actua | rial Accrued Li | iability | (AAL) | | | | | |
|-----------------|------|-----------|-----------------|----------|----------------|--------------|-------|---------|--------|------------------|
| | | (1) | (2) | | (3) | | | Portion | of AAL | |
| Valuation | A | ctive | Retirants | Active | and Inactive | | | Cov | ered | |
| Date | M | ember | and | Memb | ers (Employer | Valuation | | by A | ssets | |
| Sept. 30 | Cont | ributions | Beneficiaries | Finan | ced Portion) 4 | Assets | (1) | (2) | (3) | (4) ² |
| 2005 | \$ | 295 | \$ 909,741 | \$ | 390,307 | \$ 1,090,327 | 100 % | 100 % | 46.2 % | 83.8 % |
| 2006 | • | 268 | 981,994 | • | 403,591 | 1,113,455 | 100 | 100 | 32.5 | 80.3 |
| 2006 1 | | 268 | 981,994 | | 403,591 | 1,204,248 | 100 | 100 | 55.0 | 86.9 |
| 2007 | | 398 | 995,714 | | 447,619 | 1,259,129 | 100 | 100 | 58.8 | 87.2 |
| 2007^{-3} | | 398 | 1,003,835 | | 447,619 | 1,259,129 | 100 | 100 | 56.9 | 86.7 |
| 2008 | | 453 | 1,010,206 | | 485,638 | 1,265,725 | 100 | 100 | 52.5 | 84.6 |
| 2009 | | 487 | 1,010,464 | | 523,028 | 1,238,089 | 100 | 100 | 43.4 | 80.7 |
| 2010 | | 485 | 1,047,318 | | 517,379 | 1,201,968 | 100 | 100 | 29.8 | 76.8 |
| 2010 5 | | 485 | 1,052,454 | | 541,361 | 1,201,968 | 100 | 100 | 27.5 | 75.4 |
| 2011 | | 451 | 1,111,282 | | 516,192 | 1,318,129 | 100 | 100 | 5.1 | 69.9 |
| 2012 | | 480 | 1,145,516 | | 525,042 | 1,069,179 | 100 | 93 | 0.0 | 64.0 |
| 2013 | | 1,549 | 1,173,048 | | 549,362 | 1,069,106 | 100 | 91 | 0.0 | 62.0 |
| 2014 5 | | 3.589 | 1.817.229 | | 573.236 | 1.133.323 | 100 | 95 | 0.0 | 64.2 |

¹ Revised asset valuation method.

² Percent funded on a total valuation asset and total actuarial accrued liability basis.

³ Revised benefit provisions.

⁴ Includes DROP members.

⁵ Revised actuarial assumptions.

Prioritized Solvency Test (continued)

Other Postemployment Benefits (\$ in thousands)

Actuarial Accrued Liability (AAL) Portion of AAL **(1)** (3)**(2)** Valuation Active Retirants **Active and Inactive** Covered Members (Employer Date Member and Valuation by Assets **Contributions Beneficiaries** Financed Portion)² **(1) (2)** (3) **(4)** ¹ **Sept. 30** Assets 2007 \$ 584,668 \$ 333,456 0.0 % 0.0 % 0.0 % 0.0 % 2008 590,311 372,711 0.0 0.0 0.0 0.0 2009 528,354 353,908 0.0 0.0 0.0 0.0 2010 615,468 440,407 0.0 0.0 0.0 0.0 2011 596,842 397,839 0.0 0.0 0.0 0.0 \$ 32,996 2012^{-3} 397,041 5.5 202,054 0.0 8.3 0.0 395,655 2013 207,311 52,240 0.0 13.2 0.0 8.7 2014 415,077 222,276 18.7 12.2 77,664 0.0 0.0

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

² Includes DROP members.

³ Revised actuarial assumptions

Analysis of System Experience

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

| | Type of Activity | <u>(</u> | Gain/(Loss) |
|----|--|----------|-------------|
| 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. | \$ | (754,802) |
| 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. | | 424,532 |
| 3. | Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. | | 8,934,418 |
| 4. | Investment Income. If there is greater investment income than assumed, there is a gain. If less income, a loss. | | 30,699,331 |
| 5. | Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain. | | (2,778,748) |
| 6. | New entrants/Rehires. New entrants into the System will generally result in an actuarial loss. | | - |
| 7. | Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc. | | (1,116,499) |
| 8. | Composite Gain (or Loss) During Year | \$ | 35,408,232 |

Summary of Plan Provisions

Our actuarial valuation of the System as of September 30, 2014, is based on the present provisions of Michigan State Police Retirement Act (Public Act 182 of 1986, as amended).

Regular Retirement

Eligibility - 25 years of credited service with no age requirement; or age 50 with 10 years credited service.

<u>Annual Amount</u> - If member has 25 or more years of credited service, 60% of final average compensation; if member has less than 25 years of credited service, total credited service times 2% of final average compensation.

<u>Type of Final Average Compensation</u> - Average of 2 final years.

Early Retirement

None.

Deferred Retirement (vested benefit)

Eligibility - 10 years of credited service. Benefit commences at age 50.

<u>Annual Amount</u> - Computed as Regular Retirement benefit based on credited service and final average compensation at termination.

Duty-Disability Retirement

Eligibility - No age or service requirement.

<u>Annual Amount</u> - 60% of final average compensation. Disability benefit plus workers' compensation benefit, if any, shall not exceed 100% of final average compensation.

Non-Duty Disability Retirement

Eligibility - 10 years of credited service.

<u>Annual Amount</u> - 2.4% of final average compensation times years of credited service, to a maximum of 60% of final average compensation.

Duty Death Before Retirement

Eligibility - No age or service requirement.

<u>Annual Amount</u> - 60% of final average compensation is payable to surviving spouse; additional \$1,200 per year for each child under 18 is also payable. If no surviving spouse, children under 18 share in 60% benefit until attainment of age 18. If no spouse or children, dependent parents are eligible for 60% benefit (plus \$1,200 per dependent sibling under 18). Retirement benefit plus workers' compensation, if any, shall not exceed 100% of final average compensation.

Lump Sum Payment - A \$1,500 funeral benefit is also payable.

Summary of Plan Provisions (continued)

Non-Duty Death Before Retirement

Eligibility - 10 years of credited service.

<u>Annual Amount</u> - 2.4% of final average compensation times years of credited service, to a maximum of 60% of final average compensation, payable to surviving spouse. If no surviving spouse, children under 18 share in benefit until attainment of age 18.

Death After Retirement

The retired member's benefit continues to the surviving spouse. If no surviving spouse, children under 18 share in the continued benefit until attainment of age 18.

DROP Program Provisions

DROP Eligibility - Any age with 25 years of service.

Maximum Years of DROP - 6 years.

Retirement Benefit - Monthly benefit frozen at date of DROP election.

<u>DROP Account - Amount credited</u> - 100% of the participant's Retirement Benefit if stay full six years (for all 6 years); 90% if stay 5 years; 80% if stay 4 years; 70% if stay 3 years; 60% if stay 2 years; 50% if stay 1 year; 30% if stay less than 1 year.

Interest Credit Rate - 3%

<u>COLA</u> - No COLA adjustment on Retirement Benefit until the end of the DROP period.

<u>Benefit Options</u> - At termination of DROP participation and commencement of retirement, options are lump sum of DROP account, partial lump sum, or maintain funds in account.

Post-Retirement Cost-of-Living Adjustments

All members retiring (or leaving employment with vested benefits), and their survivors, are eligible for automatic 2% annual (non-compounded) benefit increases, with a maximum annual increase of \$500.

Post-Retirement Health Insurance Coverage

Persons in receipt of retirement allowances (including members who did not retire directly from the System, but come from a vested deferred status), and their dependents, are eligible for 95% State-paid health insurance coverage and 90% State-paid dental and vision insurance.

Member Contributions

Command Officers currently participate on a noncontributory basis. Troopers hired on or after June 10, 2012 contribute 4% of their compensation. Effective October 1, 2012, troopers and sergeants hired before June 10, 2012 began contributing 1% of their compensation. Effective October 1, 2013 troopers and sergeants hired before June 10, 2012 began contributing 2% of their compensation. These contributions are for the pension component of their plan.

This page intentionally left blank.

Schedules of Additions by Source Schedules of Deductions by Type Schedules of Changes in Fiduciary 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

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 Benefits
- 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

Schedule of Pension Plan Additions by Source

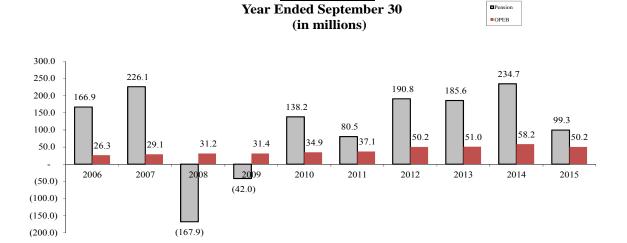
Last Ten Years

| Fiscal Year | | | Employer Co | ontributions | | | |
|-------------------|----|-----------------------|------------------|----------------------|---|---------------------------------|-------------------|
| Ended Sept. 30 | _ | Member ntributions | Dollars | % of An Covered P | | t Investment & Other Income | Total |
| 2006 | \$ | 252,805 | \$ 26,103,923 | 22.5 | % | \$ 140,565,537 | \$ 166,922,265 |
| 2007 | | 101,205 | 24,323,324 | 20.6 | | 201,660,589 | 226,085,118 |
| 2008 | | 95,904 | 34,364,943 | 28.5 | | (202, 365, 084) | (167,904,237) |
| 2009 | | 139,924 | 35,434,912 | 28.8 | | (77,524,873) | (41,950,037) |
| 2010 | | 172,387 | 37,897,934 | 32.0 | | 100,179,113 | 138,249,434 |
| 2011 | | 207,384 | 38,573,946 | 35.0 | | 41,746,238 | 80,527,568 |
| 2012 | | 229,085 | 40,686,857 | 38.8 | | 149,844,852 | 190,760,794 |
| 2013 | | 1,336,081 | 49,004,314 | 44.5 | | 135,230,258 | 185,570,653 |
| 2014 | | 2,174,031 | 58,391,310 | 51.9 | | 174,085,069 | 234,650,410 |
| 2015 | | 2,677,458 | 70,351,036 | N/A | | 26,239,211 | 99,267,706 |

Schedule of OPEB Plan Additions by Source

Last Ten Years

| Fiscal Year | | Employer Co | ontributions | | |
|-------------------|-------------------------|---------------|--------------------------------|-------------------------------|------------------|
| Ended Sept. 30 | Member Contributions | Dollars | % of Annual Covered Payroll | Net Investment & Other Income | Total |
| 2006 | \$ 1,254,352 | \$ 25,021,287 | 21.6 % | \$ 4,319 | \$ 26,279,958 |
| 2007 | 1,219,760 | 27,840,439 | 23.6 | | 29,060,199 |
| 2008 | 1,274,189 | 29,131,474 | 24.1 | 747,263 | 31,152,926 |
| 2009 | 1,244,169 | 29,841,207 | 24.2 | 276,098 | 31,361,474 |
| 2010 | 1,157,358 | 32,890,501 | 27.7 | 813,870 | 34,861,729 |
| 2011 | 1,333,174 | 31,627,140 | 28.7 | 4,178,390 | 37,138,704 |
| 2012 | 1,337,205 | 46,190,655 | 44.0 | 2,671,348 | 50,199,208 |
| 2013 | 1,272,232 | 42,858,381 | 38.9 | 6,891,305 | 51,021,917 |
| 2014 | 1,198,890 | 46,614,502 | 41.5 | 10,394,057 | 58,207,450 |
| 2015 | 1,129,645 | 45,848,019 | N/A | 3,208,549 | 50,186,214 |



Total Additions

Schedule of Pension Plan Deductions by Type

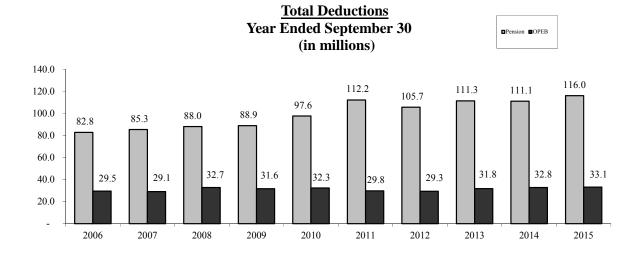
Last Ten Years

| Fiscal Year Ended Sept. 30 | Benefit Payments | Refunds and Transfers | Administrative and Other Expenses | Total |
|----------------------------------|------------------|--------------------------|---|---------------|
| 2006 | \$ 82,316,931 | \$ 142,979 | \$ 343,205 | \$ 82,803,115 |
| 2007 | 84,930,044 | 1,087 | 401,570 | 85,332,701 |
| 2008 | 87,590,337 | | 361,652 | 87,951,989 |
| 2009 | 88,492,159 | | 386,146 | 88,878,305 |
| 2010 | 97,194,529 | 7,166 | 372,728 | 97,574,423 |
| 2011 | 111,809,981 | 5,177 | 361,611 | 112,176,769 |
| 2012 | 104,962,793 | | 756,602 | 105,719,395 |
| 2013 | 110,782,367 | 19,489 | 508,118 | 111,309,974 |
| 2014 | 110,542,930 | 7,977 | 575,108 | 111,126,016 |
| 2015 | 115,466,146 | 2,935 | 561,121 | 116,030,202 |

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 | \$ 29,492,740 | | | \$ 29,492,740 |
| 2007 | 29,060,199 | | | 29,060,199 |
| 2008 | 29,672,228 | \$ 1,502,006 | \$ 1,553,172 | 32,727,406 |
| 2009 | 30,007,135 | | 1,624,795 | 31,631,930 |
| 2010 | 31,378,928 | | 876,797 | 32,255,725 |
| 2011 | 28,954,352 | | 875,530 | 29,829,882 |
| 2012 | 28,421,260 | | 875,883 | 29,297,144 |
| 2013 | 30,571,508 | | 1,205,738 | 31,777,247 |
| 2014 | 31,373,483 | | 1,409,863 | 32,783,346 |
| 2015 | 31,696,743 | | 1,383,518 | 33,080,261 |



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 Employer contributions Net investment income Miscellaneous income Total Additions | \$ 253 26,104 140,565 | \$ 101 24,323 201,614 47 226,085 | \$ 96 34,365 (202,388) 23 (167,904) | \$ 140 35,435 (77,536) 11 (41,950) | \$ 172 37,898 100,144 35 138,249 | \$ 207 38,574 41,731 15 80,528 | \$ 229 40,687 149,832 13 190,761 | \$ 1,336 49,004 135,202 28 185,571 | \$ 2,174 58,391 174,085 | \$ 2,677 70,351 26,236 3 99,268 | | | |
| Pension benefits Refunds of contributions Administrative and | 82,317 143 343 | 84,930 1 402 | 87,590 362 | 88,492 386 | 97,194 7 | 111,810 5 | 104,963 757 | 110,782 19 | 110,543 8 | 115,466 | | | |
| other expenses Total Deductions | 82,803 | 85,333 | 87,952 | 88,878 | 97,574 | 112,177 | 105,719 | 508 111,310 | 575 111,126 | 561 116,030 | | | |
| Changes in net position | \$ 84,119 | \$ 140,752 | \$ (255,856) | \$ (130,828) | \$ 40,675 | \$ (31,649) | \$ 85,041 | \$ 74,261 | \$ 123,524 | \$ (16,762) | | | |

Schedule of Changes in Fiduciary Net Position - OPEB Plan

Last Ten Years

(in thousands)

| | | | | | | | Fisca | l Yea | r | | | | | | |
|---|----|--------------------------------|---------------------------------|----|--|---|---|-------|--|---|----|---|----|---|--|
| | | 2006 | 2007 | | 2008 | 2009 | 2010 | | 2011 | 2012 | | 2013 | | 2014 | 2015 |
| Member contributions Employer contributions Other governmental contributions Net investment income Transfer from other systems Miscellaneous income Total Additions | \$ | 1,255 25,021 4 26,280 | \$ 1,220 27,840 29,060 | \$ | 1,274 29,131 278 (125) 551 44 31,153 | \$ 1,244 29,841 372 (158) 62 31,361 | \$ 1,157 32,891 322 480 12 34,862 | \$ | 1,333 31,627 3,644 527 8 37,139 | \$ 1,337 46,191 1,061 1,594 17 50,199 | \$ | 1,272 42,858 2,801 4,073 17 51,022 | \$ | 1,199 46,615 1,758 8,637 58,207 | \$ 1,130 45,848 1,874 1,326 9 50,186 |
| Health care benefits Refunds of contributions Transfer to other systems Administrative and other expenses Total Deductions | _ | 29,493 | 29,060 | _ | 29,672 1,502 1,553 32,727 | 30,007 1,625 31,632 | 31,379 <u>877</u> 32,256 | | 28,954 876 29,830 | 28,421 876 29,297 | _ | 30,572 1,206 31,777 | _ | 31,373 1,410 32,783 | 31,697 1,384 33,080 |
| Changes in net position | \$ | (3,213) | \$ - | \$ | (1,574) | \$ (271) | \$ 2,606 | \$ | 7,309 | \$ 20,902 | \$ | 19,245 | \$ | 25,424 | \$ 17,106 |

Schedule of Pension Benefits and Refunds by Type

Last Ten Years

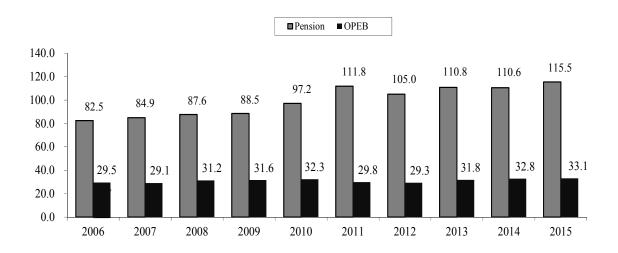
| Fiscal Year | | | | | Ref | unds | s | |
|-------------------|---------------------|----------------------------|----------------------|-------------------|----------------------|------|--------------------------|------------------|
| Ended Sept. 30 | Regular Benefits | Disability Benefits | Survivor Benefits | uneral enefits | nployee tribution | | Employer Contribution | Total |
| 2006 | \$ 71,830,448 | \$ 3,993,123 | \$ 6,493,360 | | \$ 802 | \$ | 142,177 | \$ 82,459,910 |
| 2007 | 72,275,182 | 4,100,010 | 8,554,852 | | | | 1,087 | 84,931,131 |
| 2008 | 73,769,670 | 4,407,127 | 9,413,540 | | | | | 87,590,337 |
| 2009 | 74,051,305 | 4,452,564 | 9,988,290 | | | | | 88,492,159 |
| 2010 | 81,958,482 | 4,814,513 | 10,421,533 | | 4,353 | | 2,813 | 97,201,695 |
| 2011 | 95,613,346 | 5,226,631 | 10,968,504 | \$ 1,500 | | | 5,177 | 111,815,158 |
| 2012 | 87,999,851 | 5,370,427 | 11,592,515 | | | | | 104,962,793 |
| 2013 | 93,031,493 | 5,675,801 | 12,073,573 | 1,500 | 19,489 | | | 110,801,855 |
| 2014 | 91,805,601 | 5,804,476 | 12,932,853 | | | | 7,977 | 110,550,907 |
| 2015 | 95,679,585 | 6,132,395 | 13,654,166 | | 2,935 | | | 115,469,081 |

Schedule of OPEB Benefits and Refunds by Type

Last Ten Years

| Fiscal Year Ended Sept. 30 | Health Benefits | | Dental Benefits | |] | Vision Benefits | ministrative Expenses | Health Refunds | Total |
|----------------------------------|--------------------|------------|--------------------|-----------|----|--------------------|------------------------------|-------------------|------------------|
| 2006 | \$ | 27,090,226 | \$ | 2,091,393 | \$ | 311,121 | | | \$ 29,492,740 |
| 2007 | | 26,675,560 | | 2,075,976 | | 308,663 | | | 29,060,199 |
| 2008 | | 27,093,222 | | 2,324,543 | | 254,463 | \$ 1,553,172 | | 31,225,400 |
| 2009 | | 27,404,439 | | 2,345,481 | | 257,216 | 1,624,795 | | 31,631,930 |
| 2010 | | 28,398,257 | | 2,568,972 | | 411,698 | 876,797 | | 32,255,725 |
| 2011 | | 26,456,992 | | 2,272,568 | | 224,792 | 875,530 | | 29,829,882 |
| 2012 | | 26,071,869 | | 2,282,682 | | 66,709 | 875,883 | | 29,297,144 |
| 2013 | | 27,881,426 | | 2,314,422 | | 375,661 | 1,205,738 | | 31,777,247 |
| 2014 | | 28,748,890 | | 2,440,060 | | 184,533 | 1,409,863 | | 32,783,346 |
| 2015 | | 29,110,087 | | 2,380,425 | | 206,231 | 1,383,518 | | 33,080,261 |

Total Benefit Deductions Year Ended September 30 (in millions)



Schedule of Retired Members by Type of Pension Benefit

September 30, 2014

| Amount of | | | , | Type of Re | tirement * | | | Selected Option** |
|-------------------------|--------------------|-------|-----|------------|------------|----|----|----------------------|
| Monthly Pension Benefit | Number of Retirees | 1 | 2 | 3 | 4 | 5 | 6 | Life |
| \$ 1 - 400 | 30 | 23 | | 2 | 1 | 4 | | 30 |
| 401 - 800 | 109 | 94 | 5 | 2 | 1 | | 7 | 109 |
| 801 - 1,200 | 103 | 78 | 8 | 4 | 6 | | 7 | 103 |
| 1,201 - 1,600 | 222 | 83 | 89 | 27 | 5 | 15 | 3 | 222 |
| 1,601 - 2,000 | 231 | 107 | 71 | 28 | 15 | 5 | 5 | 231 |
| 2,001 - 2,400 | 165 | 106 | 36 | 7 | 8 | 4 | 4 | 165 |
| 2,401 - 2,800 | 150 | 99 | 25 | 13 | 9 | 1 | 3 | 150 |
| 2,801 - 3,200 | 339 | 237 | 65 | 22 | 9 | 1 | 5 | 339 |
| 3,201 - 3,600 | 530 | 450 | 39 | 29 | 7 | 2 | 3 | 530 |
| 3,601 - 4,000 | 503 | 456 | 26 | 16 | 2 | 1 | 2 | 503 |
| Over 4,000 | 581 | 556 | 13 | 11 | | | 1_ | 581 |
| Totals | 2,963 | 2,289 | 377 | 161 | 63 | 33 | 40 | 2,963 |

* Type of Retirement

- 1 Normal retirement for age & service
- 2 Survivor payment normal 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

Source: Gabriel Roeder Smith & Co.

**Selected Option

Life - 100% joint and survivor

Schedule of Retired Members by Type of Other Postemployment Benefits September 30, 2014

| A 4 6 | - | Type of Othe | r Postemploymen | t Benefits |
|-----------------------------------|-----------------------|--------------|-----------------|------------|
| Amount of Monthly Pension Benefit | Number of Retirees | Health | Dental | Vision |
| \$ 1-400 | 30 | 3 | 3 | 3 |
| 401 - 800 | 109 | 46 | 45 | 45 |
| 801 - 1,200 | 103 | 36 | 37 | 37 |
| 1,201-1,600 | 222 | 174 | 170 | 169 |
| 1,601-2,000 | 231 | 194 | 189 | 189 |
| 2,001-2,400 | 165 | 149 | 146 | 146 |
| 2,401-2,800 | 150 | 146 | 145 | 146 |
| 2,801-3,200 | 339 | 332 | 332 | 332 |
| 3,201-3,600 | 530 | 518 | 520 | 520 |
| 3,601 – 4,000 | 503 | 483 | 485 | 487 |
| Over 4,000 | 581 | 559 | 558 | 563 |
| Totals | 2,963 | 2,640 | 2,630 | 2,637 |

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 | \$ 1,090.3 | \$ 1,300.3 | \$ 210.0 | 83.8 % | \$ 117.6 | 178.5 % |
| 2006 | 1,113.5 | 1,385.9 | 272.4 | 80.3 | 115.9 | 235.0 |
| 2006^{-1} | 1,204.2 | 1,385.9 | 181.7 | 86.9 | 115.9 | 156.8 |
| 2007 | 1,259.1 | 1,443.7 | 184.6 | 87.2 | 118.2 | 156.2 |
| 2007^{2} | 1,259.1 | 1,451.9 | 192.7 | 86.7 | 118.2 | 163.0 |
| 2008 | 1,265.7 | 1,496.3 | 230.6 | 84.6 | 120.7 | 191.0 |
| 2009 | 1,238.1 | 1,534.0 | 295.9 | 80.7 | 123.2 | 240.1 |
| 2010 | 1,202.0 | 1,565.2 | 363.2 | 76.8 | 118.6 | 306.3 |
| 2010^{3} | 1,202.0 | 1,594.3 | 392.3 | 75.4 | 118.6 | 330.9 |
| 2011 | 1,138.1 | 1,627.9 | 489.8 | 69.9 | 110.3 | 444.1 |
| 2012 ² | 1,069.2 | 1,671.0 | 601.9 | 64.0 | 104.9 | 573.9 |
| 2013 | 1,069.1 | 1,724.0 | 654.9 | 62.0 | 110.2 | 594.0 |
| 2014 | 1,133.3 | 1,764.1 | 630.7 | 64.2 | 112.5 | 560.9 |
| 2014 3 | 1,133.3 | 1,799.9 | 666.6 | 63.0 | 112.5 | 592.8 |

¹ Change in asset valuation method.

² Revised benefit provisions.

³ Revised actuarial assumptions and/or methods.

Schedule of Other Postemployment Benefits For Year Ended September 30, 2015

| Claims | |
|----------------------------------|---------------|
| Health insurance | \$ 27,418,253 |
| Vision insurance | 196,514 |
| Dental insurance | 2,332,643 |
| Total Claims | 29,947,409 |
| Estimated Claims Liability | |
| Health insurance | 1,691,835 |
| Vision insurance | 9,718 |
| Dental insurance | 47,782 |
| Total Estimated Claims Liability | 1,749,334 |
| Administrative Fees | |
| Staff Salaries | 103,197 |
| Health insurance | 1,173,205 |
| Vision insurance | 11,720 |
| Dental insurance | 95,396 |
| Total Administrative Fees | 1,383,518 |
| Subtotal | 33,080,261 |
| Grand Total | \$ 33,080,261 |

Schedule of Average Benefit Payments - Pension

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 | \$ 881 | \$ | 1,692 | \$ | 1,023 | \$ | 1,494 | \$ | 1,688 | \$ | 2,704 | \$ | 2,955 | \$ | 2,466 |
| Average Final Average Salary | 1,150 | | 34,621 | | 28,069 | | 31,362 | | 30,799 | | 46,663 | | 51,067 | | 42,364 |
| Number of Active Retirants | 171 | | 32 | | 103 | | 79 | | 105 | | 1,955 | | 281 | | 2,726 |
| Period 10/1/05 to 9/30/06: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,074 | \$ | 1,803 | \$ | 1,034 | \$ | 1,534 | \$ | 1,708 | \$ | 2,672 | \$ | 2,908 | \$ | 2,528 |
| Average Final Average Salary | 7,023 | | 36,079 | | 30,151 | | 33,407 | | 32,097 | | 48,479 | | 53,890 | | 46,586 |
| Number of Active Retirants | 28 | | 33 | | 115 | | 83 | | 110 | | 2,048 | | 295 | | 2,712 |
| Period 10/1/06 to 9/30/07: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,204 | \$ | 1,953 | \$ | 1,090 | \$ | 1,567 | \$ | 1,812 | \$ | 2,752 | \$ | 3,054 | \$ | 2,604 |
| Average Final Average Salary | 13,908 | | 35,752 | | 31,922 | | 33,416 | | 33,727 | | 49,100 | | 54,008 | | 47,113 |
| Number of Active Retirants | 37 | | 31 | | 123 | | 83 | | 113 | | 2,053 | | 293 | | 2,733 |
| Period 10/1/07 to 9/30/08: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,409 | \$ | 1,958 | \$ | 1,133 | \$ | 1,618 | \$ | 1,881 | \$ | 2,801 | \$ | 3,094 | \$ | 2,652 |
| Average Final Average Salary | 25,371 | | 36,598 | | 33,124 | | 33,774 | | 34,889 | | 49,530 | | 54,550 | | 47,774 |
| Number of Active Retirants | 32 | | 33 | | 127 | | 88 | | 116 | | 2,046 | | 294 | | 2,736 |
| Period 10/1/08 to 9/30/09: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,577 | \$ | 1,988 | \$ | 1,164 | \$ | 1,677 | \$ | 2,004 | \$ | 2,857 | \$ | 3,146 | \$ | 2,704 |
| Average Final Average Salary | 46,745 | | 38,004 | | 33,515 | | 36,187 | | 37,184 | | 50,070 | | 55,329 | | 48,649 |
| Number of Active Retirants | 41 | | 35 | | 127 | | 88 | | 117 | | 2,023 | | 290 | | 2,721 |
| Period 10/1/09 to 9/30/10: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,934 | \$ | 2,139 | \$ | 1,221 | \$ | 1,704 | \$ | 2,182 | \$ | 2,936 | \$ | 3,226 | \$ | 2,784 |
| Average Final Average Salary | 48,354 | | 37,160 | | 34,502 | | 36,152 | | 40,307 | | 51,475 | | 56,908 | | 50,021 |
| Number of Active Retirants | 50 | | 33 | | 132 | | 88 | | 125 | | 2,040 | | 294 | | 2,762 |
| Period 10/1/10 to 9/30/11: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,946 | \$ | 2,169 | \$ | 1,307 | \$ | 1,801 | \$ | 2,525 | \$ | 3,018 | \$ | 3,293 | \$ | 2,862 |
| Average Final Average Salary | 42,720 | | 37,160 | | 35,669 | | 39,170 | | 47,658 | | 53,194 | | 58,578 | | 51,716 |
| Number of Active Retirants | 79 | | 33 | | 135 | | 93 | | 143 | | 2,078 | | 296 | | 2,857 |
| Period 10/1/11 to 9/30/12: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,232 | \$ | 2,181 | \$ | 1,362 | \$ | 1,851 | \$ | 2,779 | \$ | 3,111 | \$ | 3,340 | \$ | 2,925 |
| Average Final Average Salary | 40,154 | | 37,217 | | 38,697 | | 40,877 | | 53,981 | | 54,808 | | 59,266 | | 52,867 |
| Number of Active Retirants | 178 | | 31 | | 145 | | 94 | | 148 | | 2,033 | | 284 | | 2,913 |
| Period 10/1/12 to 9/30/13: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,949 | \$ | 2,197 | \$ | 1,389 | \$ | 1,846 | \$ | 2,803 | \$ | 3,147 | \$ | 3,383 | \$ | 2,984 |
| Average Final Average Salary | 57,421 | | 36,625 | | 39,204 | | 41,154 | | 54,177 | | 54,952 | | 59,512 | | 53,953 |
| Number of Active Retirants | 58 | | 32 | | 150 | | 99 | | 165 | | 2,153 | | 296 | | 2,953 |
| Period 10/1/13 to 9/30/14: | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,487 | \$ | 2,258 | \$ | 1,423 | \$ | 1,989 | \$ | 2,311 | \$ | 3,211 | \$ | 3,444 | \$ | 3,043 |
| Average Final Average Salary | 12,794 | | 37,160 | | 39,452 | | 45,375 | | 43,523 | | 57,079 | | 60,468 | | 55,126 |
| Number of Active Retirants | 12 | | 33 | | 150 | | 109 | | 122 | | 2,249 | | 288 | | 2,963 |

<u>Schedule of Average Benefit Payments - Health</u> Last Nine Years

| Payment Periods | | | | Cr | edit | ed Servic | e (Y | ears) as | of S | eptember | 30 | | | | | |
|---|----|--------|----|--------|------|-----------|---------|----------|----------|----------|----|---------|----------|---------|----|---------|
| | | 0-5 | | 5-10 | | 10-15 | | 15-20 | | 20-25 | | 25-30 | | 30 + | - | Total |
| Period 10/1/05 to 9/30/06 | | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ | 1,426 | \$ | 1,992 | \$ | 1,167 | \$ | 1,577 | \$ | 2,547 | \$ | 2,821 | \$ | 3,018 | \$ | 2,657 |
| Average Final Average Salary | | 17,123 | | 34,797 | | 28,154 | | 32,493 | | 43,596 | | 49,238 | | 53,401 | | 46,579 |
| Number of Active Retirants | | 9 | | 27 | | 81 | | 69 | | 707 | | 1,249 | | 269 | | 2,411 |
| Period 10/1/06 to 9/30/07 | | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ | 1,667 | \$ | 2,060 | \$ | 1,231 | \$ | 1,607 | \$ | 2,621 | \$ | 2,915 | \$ | 3,163 | \$ | 2,741 |
| Average Final Average Salary | | 21,265 | | 33,615 | | 31,012 | | 32,504 | | 44,052 | | 50,004 | | 53,445 | | 47,112 |
| Number of Active Retirants | | 14 | | 25 | | 89 | | 69 | | 711 | | 1,253 | | 267 | | 2,428 |
| Period 10/1/07 to 9/30/08 | | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ | 2,109 | \$ | 2,173 | \$ | 1,256 | \$ | 1,666 | \$ | 2,668 | \$ | 2,974 | \$ | 3,216 | \$ | 2,792 |
| Average Final Average Salary | | 35,474 | | 35,421 | | 32,171 | | 34,365 | | 44,369 | | 50,596 | | 53,934 | | 47,706 |
| Number of Active Retirants | | 14 | | 27 | | 94 | | 73 | | 703 | | 1,253 | | 267 | | 2,431 |
| Period 10/1/08 to 9/30/09 | | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ | 2,148 | \$ | 2,229 | \$ | 1,276 | \$ | 1,729 | \$ | 2,733 | \$ | 3,029 | \$ | 3,277 | \$ | 2,845 |
| Average Final Average Salary | | 41,318 | | 35,421 | | 32,572 | | 35,861 | | 45,021 | | 51,038 | | 54,550 | | 48,236 |
| Number of Active Retirants | | 17 | | 27 | | 97 | | 74 | | 697 | | 1,248 | | 260 | | 2,420 |
| Period 10/1/09 to 9/30/10 | | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ | 2,774 | \$ | 2,266 | \$ | 1,334 | \$ | 1,756 | \$ | 2,800 | \$ | 3,120 | \$ | 3,364 | \$ | 2,927 |
| Average Final Average Salary | | 52,130 | | 35,421 | | 33,845 | | 35,819 | | 45,993 | | 52,808 | | 56,040 | | 49,727 |
| Number of Active Retirants | | 24 | | 27 | | 103 | | 74 | | 694 | | 1,276 | | 262 | | 2,460 |
| Period 10/1/10 to 9/30/11 | | | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ | 2,342 | \$ | 2,298 | \$ | 1,406 | \$ | 1,863 | \$ | 2,906 | \$ | 3,212 | \$ | 3,458 | \$ | 3,011 |
| Average Final Average Salary | | 36,454 | | 35,421 | | 34,597 | | 39,393 | | 47,821 | | 54,685 | | 58,042 | | 51,289 |
| Number of Active Retirants | | 51 | | 27 | | 105 | | 79 | | 696 | | 1,328 | | 264 | | 2,550 |
| Period 10/1/11 to 9/30/12 | Φ. | 2 422 | Φ | 2 210 | Φ | 1 405 | Φ. | 1.040 | Φ. | 2.011 | Φ | 2.216 | Φ. | 2.510 | Φ | 2.056 |
| Average Monthly Benefit | \$ | 2,423 | \$ | 2,319 | \$ | 1,495 | \$ | 1,940 | 3 | 3,011 | Э | 3,316 | 3 | 3,519 | Þ | 3,076 |
| Average Final Average Salary Number of Active Retirants | | 35,943 | | 35,352 | | 37,432 | | 41,389 | | 49,669 | | 56,573 | | 58,839 | | 52,335 |
| | | 148 | | 25 | | 111 | | 80 | | 678 | | 1,305 | | 255 | | 2,602 |
| Period 10/1/12 to 9/30/13 | | 2012 | • | | • | | • | | • | 2010 | • | 2 2 5 5 | Φ. | 2.551 | Φ. | 2 1 4 5 |
| Average Monthly Benefit | \$ | 2,813 | \$ | 2,328 | \$ | 1,521 | \$ | 1,918 | \$ | 3,040 | \$ | 3,355 | \$ | 3,571 | \$ | 3,147 |
| Average Final Average Salary | | 52,704 | | 34,695 | | 38,003 | | 41,001 | | 49,624 | | 56,859 | | 59,281 | | 53,496 |
| Number of Active Retirants | | 28 | | 26 | | 116 | | 85 | | 731 | | 1,388 | | 265 | | 2,639 |
| Period 10/1/13 to 9/30/14 | * | , | ¢ | 2 202 | ¢ | 1 | <u></u> | 2.055 | C | 2 001 | ^ | 2.45: | . | 2 5 1 5 | ¢ | 2 2 : = |
| Average Monthly Benefit | \$ | 1,454 | \$ | 2,393 | \$ | 1,550 | \$ | 2,077 | \$ | 3,001 | \$ | 3,474 | \$ | 3,645 | \$ | 3,217 |
| Average Final Average Salary | | 14,124 | | 35,421 | | 38,186 | | 45,084 | | 47,839 | | 59,214 | | 60,250 | | 54,560 |
| Number of Active Retirants | | 8 | | 27 | | 115 | | 94 | | 686 | | 1,454 | | 256 | | 2,640 |

Schedule of Average Benefit Payments - Dental

| Last N | ine | Years |
|--------|-----|-------|
|--------|-----|-------|

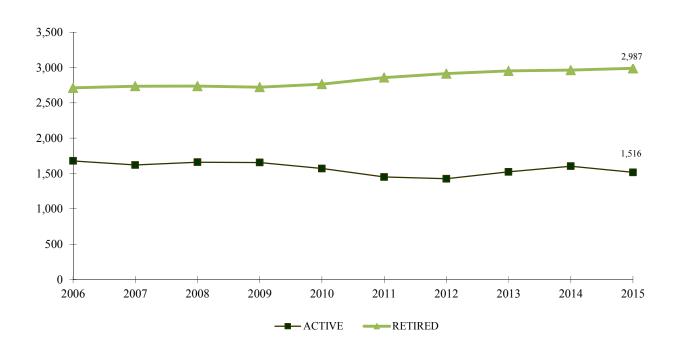
| Payment Periods | | C | redi | ited Servi | e (Y | (ears) as o | of Se | ptember 3 | 80 | 0 | | | | |
|------------------------------|-------------|-------------|------|------------|------|-------------|-------|-----------|----|--------|----|--------|----|--------|
| | 0-5 | 5-10 | | 10-15 | | 15-20 | | 20-25 | | 25-30 | | 30 + | | Total |
| Period 10/1/05 to 9/30/06 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,426 | \$ 1,992 | \$ | 1,172 | \$ | 1,575 | \$ | 2,573 | \$ | 2,836 | \$ | 3,023 | \$ | 2,675 |
| Average Final Average Salary | 17,123 | 34,797 | | 28,084 | | 32,097 | | 44,239 | | 49,573 | | 53,502 | | 46,970 |
| Number of Active Retirants | 9 | 27 | | 79 | | 68 | | 695 | | 1,248 | | 268 | | 2,394 |
| Period 10/1/06 to 9/30/07 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,667 | \$ 2,060 | \$ | 1,237 | \$ | 1,605 | \$ | 2,644 | \$ | 2,928 | \$ | 3,171 | \$ | 2,758 |
| Average Final Average Salary | 21,265 | 33,615 | | 31,015 | | 32,102 | | 44,638 | | 50,293 | | 53,637 | | 47,475 |
| Number of Active Retirants | 14 | 25 | | 87 | | 68 | | 700 | | 1,253 | | 267 | | 2,414 |
| Period 10/1/07 to 9/30/08 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,109 | \$ 2,173 | \$ | 1,274 | \$ | 1,659 | \$ | 2,689 | \$ | 2,987 | \$ | 3,224 | \$ | 2,810 |
| Average Final Average Salary | 35,474 | 35,421 | | 32,475 | | 33,454 | | 44,915 | | 50,915 | | 54,126 | | 48,072 |
| Number of Active Retirants | 14 | 27 | | 92 | | 71 | | 692 | | 1,252 | | 267 | | 2,415 |
| Period 10/1/08 to 9/30/09 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,148 | \$ 2,229 | \$ | 1,293 | \$ | 1,728 | \$ | 2,747 | \$ | 3,039 | \$ | 3,284 | \$ | 2,858 |
| Average Final Average Salary | 41,318 | 35,421 | | 32,875 | | 35,532 | | 45,400 | | 51,261 | | 54,685 | | 48,504 |
| Number of Active Retirants | 17 | 27 | | 95 | | 73 | | 688 | | 1,246 | | 260 | | 2,406 |
| Period 10/1/09 to 9/30/10 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,774 | \$ 2,266 | \$ | 1,352 | \$ | 1,755 | \$ | 2,815 | \$ | 3,124 | \$ | 3,379 | \$ | 2,938 |
| Average Final Average Salary | 52,130 | 35,421 | | 34,155 | | 35,490 | | 46,395 | | 52,910 | | 56,366 | | 49,958 |
| Number of Active Retirants | 24 | 27 | | 101 | | 73 | | 687 | | 1,272 | | 263 | | 2,447 |
| Period 10/1/10 to 9/30/11 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,342 | \$ 2,298 | \$ | 1,446 | \$ | 1,863 | \$ | 2,921 | \$ | 3,220 | \$ | 3,472 | \$ | 3,023 |
| Average Final Average Salary | 36,454 | 35,421 | | 35,530 | | 39,131 | | 48,187 | | 54,871 | | 58,357 | | 51,562 |
| Number of Active Retirants | 51 | 27 | | 105 | | 78 | | 690 | | 1,326 | | 265 | | 2,542 |
| Period 10/1/11 to 9/30/12 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,435 | \$ 2,319 | \$ | 1,534 | \$ | 1,940 | \$ | 3,026 | \$ | 3,327 | \$ | 3,527 | \$ | 3,089 |
| Average Final Average Salary | 36,182 | 35,352 | | 38,315 | | 41,155 | | 50,071 | | 56,833 | | 59,026 | | 52,642 |
| Number of Active Retirants | 148 | 25 | | 111 | | 79 | | 674 | | 1,304 | | 256 | | 2,597 |
| Period 10/1/12 to 9/30/13 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,813 | \$ 2,328 | \$ | 1,549 | \$ | 1,918 | \$ | | \$ | 3,364 | \$ | 3,578 | \$ | 3,156 |
| Average Final Average Salary | 52,704 | 34,695 | | 38,683 | | 40,777 | | 49,851 | | 57,062 | | 59,413 | | 53,705 |
| Number of Active Retirants | 28 | 26 | | 117 | | 84 | | 725 | | 1,384 | | 265 | | 2,629 |
| Period 10/1/13 to 9/30/14 | | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,454 | \$ 2,393 | \$ | 1,578 | \$ | 2,078 | \$ | 3,010 | \$ | 3,480 | \$ | 3,653 | \$ | 3,224 |
| Average Final Average Salary | 14,124 | 35,421 | | 38,870 | | 44,925 | | 48,067 | | 59,324 | | 60,387 | | 54,710 |
| Number of Active Retirants | 8 | 27 | | 116 | | 93 | | 683 | | 1,447 | | 256 | | 2,630 |

Schedule of Average Benefit Payments - Vision Last Nine Years

| Payment Periods | | Cred | ited | l Service | e (Y | ears) as | of S | Septemb | er : | 30 | | | |
|------------------------------|-------------|-------------|------|-----------|------|----------|------|---------|------|--------|-------------|----|-----------|
| - | 0-5 | 5-10 | | 10-15 | | 15-20 | | 20-25 | | 25-30 | 30 + | • | Total |
| Period 10/1/05 to 9/30/06 | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,426 | \$ 1,992 | \$ | 1,161 | \$ | 1,561 | \$ | 2,571 | \$ | 2,836 | \$ 3,023 | \$ | 2,673 |
| Average Final Average Salary | 17,123 | 34,797 | | 28,418 | | 31,669 | | 44,168 | | 49,574 | 53,502 | | 46,936 |
| Number of Active Retirants | 9 | 27 | | 80 | | 69 | | 696 | | 1,250 | 268 | | 2,399 |
| Period 10/1/06 to 9/30/07 | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 1,667 | \$ 2,060 | \$ | 1,226 | \$ | 1,591 | \$ | 2,643 | \$ | 2,927 | \$ 3,171 | \$ | 2,755 |
| Average Final Average Salary | 21,265 | 33,615 | | 31,285 | | 31,674 | | 44,568 | | 50,293 | 53,637 | | 47,440 |
| Number of Active Retirants | 14 | 25 | | 88 | | 69 | | 701 | | 1,255 | 267 | | 2,419 |
| Period 10/1/07 to 9/30/08 | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,109 | \$ 2,173 | \$ | 1,265 | \$ | 1,645 | \$ | 2,686 | \$ | 2,987 | \$ 3,224 | \$ | 2,807 |
| Average Final Average Salary | 35,474 | 35,421 | | 32,576 | | 33,025 | | 44,813 | | 50,914 | 54,126 | | 48,027 |
| Number of Active Retirants | 14 | 27 | | 92 | | 72 | | 694 | | 1,254 | 267 | | 2,420 |
| Period 10/1/08 to 9/30/09 | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,148 | \$ 2,229 | \$ | 1,284 | \$ | 1,713 | \$ | 2,746 | \$ | 3,039 | \$ 3,284 | \$ | 2,857 |
| Average Final Average Salary | 41,318 | 35,421 | | 32,973 | | 35,087 | | 45,327 | | 51,258 | 54,685 | | 48,469 |
| Number of Active Retirants | 17 | 27 | | 95 | | 74 | | 689 | | 1,249 | 260 | | 2,411 |
| Period 10/1/09 to 9/30/10 | | | | | | | | | | | | | |
| Average Monthly Benefit | \$ 2,774 | \$ 2,266 | \$ | 1,343 | \$ | 1,740 | \$ | 2,813 | \$ | 3,125 | \$ 3,379 | \$ | 2,937 |
| Average Final Average Salary | 52,130 | 35,421 | | 34,248 | | 35,045 | | 46,321 | | 52,929 | 56,366 | | 49,936 |
| Number of Active Retirants | 24 | 27 | | 101 | | 74 | | 688 | | 1,277 | 263 | | 2,454 |
| Period 10/1/10 to 9/30/11 | | | | | | | | | | | | | |
| Average Monthly Benefit | \$, | \$ 2,298 | \$ | 1,438 | \$ | | \$ | 2,919 | \$ | - 1 | \$ 3,472 | \$ | 3,021 |
| Average Final Average Salary | 36,454 | 35,421 | | 35,619 | | 38,668 | | 48,110 | | 54,882 | 58,357 | | 51,537 |
| Number of Active Retirants | 51 | 27 | | 105 | | 79 | | 691 | | 1,331 | 265 | | 2,549 |
| Period 10/1/11 to 9/30/12 | | | | | | | | | | | | | • • • • • |
| Average Monthly Benefit | \$, | \$ 2,319 | \$ | 1,525 | \$ | | \$ | 3,026 | \$ | - 1 | \$ 3,527 | \$ | 3,089 |
| Average Final Average Salary | 36,182 | 35,352 | | 38,399 | | 40,673 | | 50,036 | | 56,857 | 59,026 | | 52,637 |
| Number of Active Retirants | 148 | 25 | | 111 | | 80 | | 676 | | 1,310 | 256 | | 2,606 |
| Period 10/1/12 to 9/30/13 | | | | | | | | | | | | | |
| Average Monthly Benefit | \$, | \$ 2,328 | \$ | 1,550 | \$ | | \$ | | \$ | | \$ 3,578 | \$ | 3,157 |
| Average Final Average Salary | 52,704 | 34,695 | | 38,928 | | 40,777 | | 49,820 | | 57,084 | 59,413 | | 53,729 |
| Number of Active Retirants | 28 | 26 | | 116 | | 84 | | 727 | | 1,390 | 265 | | 2,636 |
| Period 10/1/13 to 9/30/14 | | | | | | | | | | | | | |
| Average Monthly Benefit | \$, | \$ 2,393 | \$ | 1,580 | \$ | | \$ | 3,010 | \$ | - 1 | \$ 3,653 | \$ | 3,227 |
| Average Final Average Salary | 14,124 | 35,421 | | 39,119 | | 44,925 | | 48,043 | | 59,417 | 60,387 | | 54,786 |
| Number of Active Retirants | 8 | 27 | | 115 | | 93 | | 683 | | 1,455 | 256 | | 2,637 |

Ten Year History of Membership

Fiscal Year Ended September 30



ACKNOWLEDGMENTS

The *Michigan State Police 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:

Management:

Ronald W. Foss, Director Aver Hamilton, Accounting Manager

Accountants:

Kate Carlin Dan Harry Alpa Kulkarni Erik Simmer Paula Webb Carol Wheaton

Technical and Support Staff:

Jamin Schroeder

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

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