

**Michigan Legislative Retirement System**

**Comprehensive Annual Financial Report  
for the Fiscal Year Ended September 30, 2016**



**MLRS**

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

**Prepared by:  
Michigan Legislative Retirement System  
Anderson House Office Building, Suite S0927  
P.O. Box 30014  
Lansing, Michigan 48909  
(517) 373-0575**

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# **INTRODUCTORY SECTION**

**Michigan Legislative Retirement System**

**Comprehensive Annual Financial Report  
for the Fiscal Year Ended September 30, 2016**

## **INTRODUCTORY SECTION**



**Certificate of Achievement  
Letter of Transmittal  
Retirement Board Members  
Advisors and Consultants  
Organization Chart**

# INTRODUCTORY SECTION



Government Finance Officers Association

## Certificate of Achievement for Excellence in Financial Reporting

Presented to

### **Michigan Legislative Retirement System**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**September 30, 2015**

Executive Director/CEO

# INTRODUCTORY SECTION

## Letter of Transmittal

CHRISTINE HAMMOND  
DIRECTOR

TEL. NO.: (517) 373-0575  
FAX NO.: (517) 373-5639  
TOLL FREE: (877) 577-5628  
EMAIL: [chammon@house.mi.gov](mailto:chammon@house.mi.gov)



STATE OF MICHIGAN  
**LEGISLATIVE RETIREMENT SYSTEM**  
P.O. BOX 30014  
LANSING, MICHIGAN  
48909-7514

January 13, 2017

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 report of the Michigan Legislative Retirement System (MLRS or System) for fiscal year 2016.

### **INTRODUCTION TO REPORT**

The System was established by legislation under Public Act 261 of 1957. Information regarding the background and description of the System is presented in Note 1 in the financial section of this report. The purpose of the System is to provide benefits for eligible current and former state legislators. The services provided by the staff are performed to facilitate the payment of 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 management 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.

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

Generally Accepted Accounting Principles (GAAP) requires that management provide an overview and analysis of the System's financial statements, which is called the MD&A. This letter of transmittal should be read in conjunction with the MD&A. The MD&A is found in the beginning of the financial section of this report.

# **INTRODUCTORY SECTION**

## **Letter of Transmittal (Continued)**

### **FINANCIAL INFORMATION**

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

The management of the System is responsible for maintaining a system of adequate internal accounting control designed to: (1) provide reasonable assurance that transactions are executed in accordance with management's general or specific authorization; (2) record transactions necessary to maintain accountability for assets; and (3) permit preparation of financial statements in accordance with generally accepted accounting principles in the United States of America. The internal control process 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.

### **INVESTMENT**

The System Board of Trustees is the investment fiduciary for the System, and pursuant to state law, the state treasurer is the custodian of all investments of the System. The System's overall investment objective is to obtain a competitive total rate of return on investments commensurate with Act No. 314 of the Michigan Public Acts of 1965, as amended (MCL §38.1132 et seq., which is the Michigan statute governing the investments of public pension funds), the System's risk-taking ability, and the responsibilities of the System to provide retirement benefits for its members, retirees, and their beneficiaries. In absolute terms, this return objective should approximate the System's actuarial assumed rate of return, which is currently 7%. The investment activity for the year produced a total rate of return on the portfolio of 9.3%. A summary of asset allocation and investment portfolio information can be found in the investment section of this report.

### **FUNDING**

Funds are derived from the excess of revenue over expenses. Funds are accumulated by the System in order to meet future benefit obligations to retirees and beneficiaries. The percentage computed by dividing the actuarial value of assets over the actuarial accrued liability is referred to as the "funded ratio." This ratio provides an indication of the funded status of the System and, generally, the greater this percentage, the stronger the System. A higher level of funding gives participants a greater degree of assurance that their pension benefits are secure. Effective in fiscal year 2011, the system uses actuarial valuations from the previous fiscal year.

#### ***Pension Plan***

As of September 30, 2015, the actuarial value of the assets and actuarial accrued liability of the fund were \$134.0 million and \$192.6 million respectively, resulting in a funded ratio of 70%. A historical perspective of funding levels for the System is presented in the statistical section of this report.

#### ***Other Postemployment Benefits Plan (OPEB)***

As of September 30, 2015, the actuarial value of the assets and actuarial accrued liability of the fund were \$21.8 million and \$152.7 million respectively, resulting in a funded ratio of 13%. OPEB valuations were required beginning fiscal year 2007 and do not require retroactive application. Therefore, eight (8) valuation years of historical funding levels for the System are presented in the Required Supplementary Information in the financial section of this report.

### **PROFESSIONAL SERVICES**

#### ***Audit Services***

The Office of the Auditor General (OAG), independent auditors, conducts audits of the System. The independent auditor's report on the System's financial statements is included in the financial section of this report. The financial statements of the System are audited by the Auditor General as part of his constitutional responsibility.

## Letter of Transmittal (Continued)

### *Actuarial Services*

Statute requires an annual actuarial valuation be conducted for the pension benefits. The purpose of the valuation is to evaluate the mortality, service, compensation, and other financial experience of the System and to recommend funding rates. This annual actuarial valuation was completed for the fiscal year ended September 30, 2015. Actuarial certification and supporting statistics are included in the actuarial section of this report.

### *Financial Services*

The Board of Trustees for the System retains fourteen (14) investment managers and a financial consultant to assist the board in its statutory responsibility to invest the System's funds. These advisors are identified in the introductory section of this report. By statute, the State Treasurer acts as the custodian for the System. Investment information is included in the investment section of this report.

### **HONORS**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Michigan Legislative Retirement System for its comprehensive annual financial report for the fiscal year ended September 30, 2015. This was the 2<sup>nd</sup> consecutive year that the LRS has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

### **ACKNOWLEDGEMENTS**

The preparation of this report was accomplished with the dedication and cooperation of several people, including Lorie Blundy, the System's Chief Accountant. 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 like to express our appreciation for the assistance given by staff, the advisors, and other persons who contributed to the preparation of this report. We believe their combined efforts have produced a report that will enable the System Board of Trustees, plan members, and other interested parties to evaluate and understand the Michigan Legislative Retirement System.

Sincerely,



Christine Hammond, Director  
Michigan Legislative Retirement System

# INTRODUCTORY SECTION

## Administrative Organization

### Retirement Board Members

The Honorable R. Robert Geake  
Retiree Member  
Chairperson of the Board

The Honorable Alma Smith  
Retiree Member  
Vice-Chairperson of the Board

The Honorable Burton Leland  
Retiree Member

The Honorable John Cherry  
Retiree Member

The Honorable Philip Hoffman  
Retiree Member

The Honorable Joseph Palamara  
Retiree Member

The Honorable Donald Gilmer  
Defined Contribution Plan Member

The Honorable John Jamian  
Retiree Member

The Honorable Maxine Berman  
Retiree Member

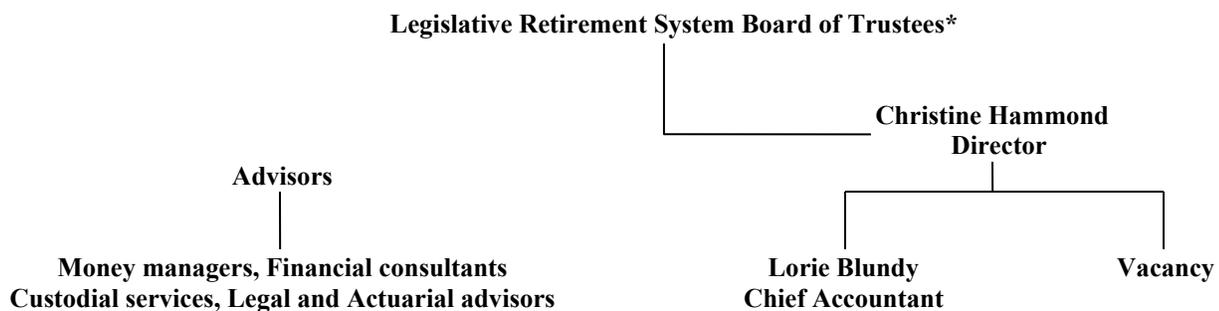
The Honorable George McManus  
Retiree Member

The Honorable Gary Randall  
Retiree Member

### Administrative Organization

Anderson House Office Building  
Suite S0927  
P.O. Box 30014  
Lansing, Michigan 48909  
(517) 373-0575  
(877) 577-5628 toll-free

### Organization Chart



\*The investments of the System are managed by the System's Board of Trustees with the assistance of private investment professionals. Information regarding the System's investments can be found in the Investment Section.

# INTRODUCTORY SECTION

## Administrative Organization (continued)

### Investment Advisors\*

The American Fund Group  
Capital Research and Management  
EuroPacific Growth Fund  
333 South Hope Street  
Los Angeles, CA 90071

Barrow Hanley Mewhinney & Strauss, Inc.  
JPMorgan Chase Tower  
2200 Ross Ave., 31<sup>st</sup> Floor  
Dallas, TX 75201

Cramer Rosenthal McGlynn, LLC  
520 Madison Avenue, 20<sup>th</sup> Floor  
New York, NY 10022

Dodge & Cox Funds  
c/o Boston Financial Data Services  
30 Dan Road  
Canton, MA 02021

DoubleLine Funds Trust  
333 South Grand Ave., 18th Floor  
Los Angeles, CA 90071

Franklin Templeton Investments  
One Franklin Parkway  
San Mateo, CA 94403

Ironwood Capital Management  
One Market Plaza  
Steuart Tower, Suite 2500  
San Francisco, CA 94105

JP Morgan Alerian MLP Index ETN  
270 Park Avenue  
New York, NY 10017

Lazard Asset Management  
30 Rockefeller Plaza  
New York, NY 10112

Morgan Stanley  
MSIF Frontier Emerging Markets  
522 Fifth Avenue  
New York, NY 10036

Parametric Portfolio Associates  
3600 Minnesota Drive, Suite 325  
Minneapolis, MN 55435

Rice Hall James and Associates, LLC  
600 West Broadway, Suite 1000  
San Diego, CA 92101

Wellington Management Co., LLP  
280 Congress Street  
Boston, MA 02210

World Asset Management/Comerica  
411 West Lafayette Street  
Mail Code 3462, 4th & 5th Floors  
Detroit, MI 48226

\*The investments of the System are managed by the Investment Advisors, in accordance with Board directive, and applicable law. Information on the investments and the fiduciary, the System's Board of Trustees, can be found in the Investment Section.

### Advisors and Consultants

#### **Actuary**

Gabriel Roeder Smith & Company  
Mark Buis  
Southfield, MI 48076

#### **Financial Consultant**

Fund Evaluation Group  
David Wetzel  
Cincinnati, OH 45202

#### **Independent Auditors**

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

#### **Custodian**

Nick Khouri  
State Treasurer  
State of Michigan

#### **Legal Advisor**

Bill Schuette  
Attorney General  
State of Michigan

# ***INTRODUCTORY SECTION***

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**Michigan Legislative Retirement System**

**Comprehensive Annual Financial Report  
for the Fiscal Year Ended September 30, 2016**

**FINANCIAL  
SECTION**



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



# OAG

Office of the Auditor General

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

Doug A. Ringler, CPA, CIA  
Auditor General

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

The Honorable R. Robert Geake, Chair  
Board of Trustees  
and  
Ms. Christine I. Hammond, Director  
Michigan Legislative Retirement System  
Anderson House Office Building  
Lansing, Michigan

Dear Mr. Geake and Ms. Hammond:

**Report on the Financial Statements**

We have audited the accompanying financial statements of the Michigan Legislative Retirement System as of and for the fiscal year ended September 30, 2016 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 Legislative Retirement System as of September 30, 2016 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.

***Emphasis of Matter***

As discussed in Note 8 to the financial statements, the Michigan Legislative Retirement System adopted Governmental Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application*, for the fiscal year ended September 30, 2016. Our opinion is not modified with respect to this matter.



# OAG

Office of the Auditor General

Doug A. Ringler, CPA, CIA  
Auditor General

The Honorable R. Robert Geake, Chair  
Ms. Christine I. Hammond, 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, 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, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### *Other Information*

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

The supporting schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supporting schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

### **Other Reporting Required by Government Auditing Standards**

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

Sincerely,

Doug Ringler  
Auditor General  
January 13, 2017

# FINANCIAL SECTION

## Management's Discussion and Analysis

The management's discussion and analysis (MD&A) of the System provides an overview of the financial activities and performance for the fiscal years ended September 30, 2016 and 2015. This should be read in conjunction with the financial statements and required supplemental information (RSI), which provides information for September 30, 2016.

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

This Comprehensive Annual Financial Report (CAFR) consists of two financial statements; Statement of Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position (page 18) and Statements of Changes in Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position (page 19). These financial statements report information about the System, as a whole, and about its financial condition that should help answer the question: Is the System, as a whole, better off or worse off as a result of this year's activities? These statements include all assets and liabilities using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, all revenues and expenses are taken into account regardless of when cash is received or paid.

The Statement of Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position, presents all of the System's assets and liabilities, with the difference between the two reported as net position. Over time, increases and decreases in net position measure whether the System's financial position is improving or deteriorating. The Statement Changes in Pension Plan and Other Postemployment Benefit Plan Fiduciary Net Position, presents how the System's net position changed during the most recent fiscal year. These two financial statements should be reviewed along with the Schedule of Net Pension Liability (page 37) and Schedules of Contributions (page 38) to determine whether the System is becoming financially stronger or weaker and to understand changes over time in the funded status of the System.

### FINANCIAL ANALYSIS

The Statement of Pension Plan and Other Postemployment Benefit Plan Net Position, presents information on the System's assets and liabilities using the accrual basis of accounting. Over time, increases or decreases in net position may serve as a useful indicator of the System's financial strength or weakness. System's net position, for the fiscal year ending September 30, 2016, **decreased** by \$1.9 million or 1.2%, due to a decrease in the market value of the System's investments.

<b>Plan Fiduciary Net Position</b>			
<u>As of September 30</u>			
(\$ in thousands)			
	<u>2016</u>	<u>2015</u>	Increase (Decrease)
Assets:			
Equity in common cash	\$ 1,161	\$ 1,152	0.8 %
Receivables	937	1,109	(15.5)
Investments	152,096	153,628	(1.0)
<b>Total assets</b>	<u>154,193</u>	<u>155,889</u>	<u>(1.1)</u>
Liabilities:			
Warrants outstanding	3	18	(84.7)
Accounts payable	688	474	45.1
<b>Total liabilities</b>	<u>691</u>	<u>492</u>	<u>40.4</u>
<b>Total net position</b>	<u>\$ 153,502</u>	<u>\$ 155,396</u>	<u>(1.2)%</u>

# FINANCIAL SECTION

## Management's Discussion and Analysis (continued)

### ADDITIONS TO NET POSITION

The reserves needed to finance benefits provided by the System are accumulated through the collection of court fees, member and other contributions, State appropriations and through earnings on investments. Contributions and investment income/loss for fiscal year 2016 totaled \$18.7 million. Total Additions to Net Position **increased** in fiscal year 2016 by 977.3% from the prior year, primarily due to the fact that the System investments increased from the prior year.

### DEDUCTIONS FROM NET POSITION

The primary deductions of the System include the payment of pension and life insurance benefits to members and beneficiaries, the payments for health, dental, and vision benefits, the refund or transfer of contributions to former members, and the cost of administering the System. Total expenses for fiscal year 2016 were \$20.6 million, a **decrease** of 2.4% over 2015 expenses, primarily due to decreased qualified rollovers.

**Changes in Plan Fiduciary Net Position**  
For Fiscal Year Ended September 30  
(\$ in Thousands)

	2016	2015	Increase (Decrease)
<b>Additions</b>			
Member contributions	\$ 136	\$ 126	7.5 %
Employer contributions	4,745	4,654	1.9
Net Investment income/(loss)	13,159	(7,541)	274.5
Miscellaneous income	626	633	(1.1)
<b>Total additions</b>	<b>18,666</b>	<b>(2,128)</b>	<b>977.3</b>
<b>Deductions</b>			
Pension benefits	13,452	13,394	0.4
Health care benefits	6,169	6,134	0.6
Death benefits/life ins.	395	377	4.9
Refunds/qual. rollover	73	724	(90.0)
Administrative exp.	472	428	10.3
<b>Total deductions</b>	<b>20,560</b>	<b>21,057</b>	<b>(2.4)</b>
<b>Net increase (decrease)</b>	<b>(1,894)</b>	<b>(23,185)</b>	<b>91.8</b>
<b>Net position - Beginning of year</b>	<b>155,396</b>	<b>178,581</b>	<b>(13.0)</b>
<b>Net position - End of year</b>	<b>\$ 153,502</b>	<b>\$ 155,396</b>	<b>(1.2)%</b>

# FINANCIAL SECTION

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

### *Overall Financial Analysis*

In accordance with its enabling statute, the MLRS Board of Trustees has fiduciary responsibility for the management of the system's funds, and it oversees its carefully structured and carefully monitored investment program to meet the system's financial goals, established through its Investment Policy Statement.

The Board seeks to achieve an optimal rate of return balanced with prudent levels of risk, to preserve capital and avoid large losses, to meet or exceed the system's 7% rate of return actuarial assumption over the long-term, to ensure that the portfolio investment managers meet or exceed their benchmarks over the long-term, and to ensure that the portfolio is invested in a cost-effective manner.

While much of the focus was on the election and to some extent central bank policies, the equity and fixed income markets quietly plodded along and were generally positive during the Legislative Retirement System's (LRS) fiscal year which ended September 30, 2016.

The LRS portfolio remains well-diversified and positioned to generate results under a wide variety of economic scenarios. The portfolio has both domestic and international equity exposure with the fixed income segment invested in a wide variety of disparate segments. The portfolio includes inflation protection in the form of commodities and exposures related to energy sector and non-traditional exposures to add balance to the total portfolio.

As with past practice, the Trustees of LRS continued their ongoing due diligence reviews, meeting on a regular basis to discuss markets, managers and portfolio positioning. Rather than shun risk or even attempt to predict it, the Trustees continue to diversify the portfolio in a way that avoids excess concentration in a single risk. By doing so they recognize long-term tendencies can help raise the probability of investment success by taking a smoother path. The Trustees further recognize that near-term price action can and will occasionally become unexpectedly detached from fair value and that a commitment to diversification can help stabilize returns over both the short and the long-term.

Detailed information regarding the MLRS investment program and performance can be found in the Investment Section of this report (beginning on page 44).

### *Financial Questions or Requests*

This financial report is designed to provide a general overview of the System's financial position. Requests for additional information or questions about this report should be addressed to: Michigan Legislative Retirement System, P.O. Box 30014, Lansing, MI 48909.

# *FINANCIAL SECTION*

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# FINANCIAL SECTION

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

As of September 30, 2016

	Pension Plan	OPEB Plan	Total
<b>ASSETS</b>			
Equity in common cash	\$ 987,487	\$ 173,520	\$ 1,161,007
Receivables			
Due from other funds	85,515		85,515
Due from federal agencies		203,354	203,354
Interest and dividends	41,038		41,038
Sale of investments	606,707		606,707
Total receivables:	733,260	203,354	936,614
Investments			
Equities	47,140,820	8,221,591	55,362,411
Alternative investments	13,851,242	2,415,725	16,266,967
Mutual funds	68,516,784	11,949,665	80,466,448
Total investments:	129,508,845	22,586,981	152,095,826
<b>Total assets:</b>	<b>131,229,592</b>	<b>22,963,855</b>	<b>154,193,447</b>
<b>LIABILITIES</b>			
Warrants outstanding	2,751		2,751
Accounts payable and other liabilities	660,663	2,500	663,163
Amount due to other funds	5,720		5,720
Unearned revenue		19,419	19,419
<b>Total liabilities:</b>	<b>669,134</b>	<b>21,919</b>	<b>691,053</b>
<b>Net position restricted for pension benefits and OPEB</b>	<b>\$ 130,560,458</b>	<b>\$ 22,941,936</b>	<b>\$ 153,502,394</b>

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, 2016

	Pension Plan	OPEB Plan	Total
<b>ADDITIONS</b>			
Member contributions:			
Other member contributions	\$ 3,648	\$ 6,452	\$ 10,100
DC health premium		125,639	125,639
Employer contributions		3,733,500	3,733,500
Employer contributions-Court fees		804,133	804,133
Other governmental contributions		207,065	207,065
Total contributions:	3,648	4,876,789	4,880,437
Investment Income (Loss):			
Net increase (decrease) in fair value of investments	9,025,604	1,475,899	10,501,503
Interest, dividends and other	2,746,122	431,826	3,177,948
Total investment income (loss)	11,771,726	1,907,726	13,679,451
Less investment expenses	(446,943)	(73,086)	(520,029)
Net investment income (loss)	11,324,783	1,834,640	13,159,423
Miscellaneous income	11,328,431	626,101	626,101
<b>Total additions:</b>	<b>11,328,431</b>	<b>7,337,530</b>	<b>18,665,961</b>
<b>DEDUCTIONS</b>			
Benefits & refunds paid to plan members and beneficiaries:			
Retirement benefits	13,451,597		13,451,597
Health benefits		5,764,052	5,764,052
Dental benefits		404,929	404,929
Death benefits	395,000		395,000
Refund of contribution & interest	72,715		72,715
Administrative expenses	405,381	66,289	471,670
<b>Total deductions:</b>	<b>14,324,693</b>	<b>6,235,271</b>	<b>20,559,964</b>
Net increase (decrease) in net position	(2,996,262)	1,102,259	(1,894,003)
<b>Net position restricted for pension benefits and OPEB:</b>			
<b>Beginning of year</b>	<b>133,556,721</b>	<b>21,839,677</b>	<b>155,396,397</b>
<b>End of year</b>	<b>\$ 130,560,458</b>	<b>\$ 22,941,936</b>	<b>\$ 153,502,394</b>

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

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements

### NOTE 1 - PLAN DESCRIPTION

#### ORGANIZATION

The Michigan Legislative Retirement System (MLRS or System) is a single employer, public employee, defined benefit retirement plan and post-employment healthcare plan governed by the State of Michigan (the "State"). The System was created by Public Act 261 of 1957, as amended, and provides retirement and ancillary benefits to eligible current and former state legislators. The System's pension plan was established by the State to provide retirement, survivor and disability benefits to the Michigan Legislature, elected for the first time before March 31, 1997. In addition, the System's health plan provides to eligible vested members, the option of receiving health, prescription, dental and vision coverage under the Michigan Legislative Retirement Act. The System's financial statements are included as a pension trust fund in the combined financial statements of the State of Michigan.

The System operates within the legislative branch of state government. The System's Board of Trustees appoints the director who serves as executive secretary to the System's board, with whom the general oversight of the System resides. Public Act 486 of 1996 amended the System's enabling statute to mandate that persons elected to the Michigan Legislature after March 30, 1997, participate in a state-wide defined contribution pension plan administered by the State of Michigan Department of Technology, Management and Budget. Thus the defined benefit plan is a closed plan. The System's financial statements are included as a pension and other employee benefit trust fund of the State of Michigan Comprehensive Annual Financial Report. The defined contribution retirement plan operates as a 401(k) plan and is part of the State of Michigan 401K plan. The State of Michigan 401K plan annual financial report is issued separately.

The System shall be administered by a board of trustees, consisting of eleven (11) members, and composed as defined in Public Act 261 of 1957, as amended, and in the bylaws. Board members are appointed for a 4-year term. The board of trustees oversee the Systems investments, advisors and consultants. Complete information on the retirement board, advisors and consultants are included in the introductory section of this report.

#### MEMBERSHIP

At September 30, 2016, the System's membership consisted of the following:

Inactive plan members or their beneficiaries currently receiving benefits	<b>2016</b>
Regular benefits.....	216
Survivor benefits.....	55
Disability benefits.....	0
<b>Total.....</b>	<b>271 *</b>
Inactive plan members entitled to but not yet receiving benefits	<u>11</u>
Active plan members:	
Vested.....	1
Non-vested.....	<u>0</u>
<b>Total.....</b>	<b>1</b>
<b>Total Plan Members</b>	<b><u>283</u></b>

\*Includes 8 domestic relations orders (DRO) alternate payees for 2016

## Notes to General Purpose Financial Statements (Continued)

### MEMBERSHIP (continued)

The System provides health and life insurance benefits. The number of plan participants is as follows:

<b>Health/Dental/Vision Plan</b>	<b>2016</b>
Active participants.....	23
Deferred participants.....	71
Participants currently eligible for health benefits.....	388 **
Participants receiving health benefits.....	363 **

\*\*Includes 98 defined contribution (DC) participants at September 30, 2016 who are receiving health care insurance through System in accordance with state statute. At September 30, 2016, the number of DC participants who were eligible for health care insurance but declined to receive the benefits were 23.

### BENEFIT PROVISIONS

#### *Introduction*

Public Act 261 of 1957, the Michigan Legislative Retirement System Act, as amended, establishes eligibility and benefit provisions for this defined benefit pension plan.

Michigan's constitutional term-limit amendment limits members of the House of Representatives to six (6) years in office and members of the Michigan Senate to eight (8) years in office. Effective March 31, 1997, Public Act 486 of 1996 closed the System to new legislators. The act provides certain re-elected former legislators the option to rejoin the system. All legislators who first take office after 1997 are automatically enrolled in the State of Michigan Defined Contribution Plan.

Benefit provisions of the post-employment healthcare plan are established by State statute, which may be amended. Public Act 261 of 1957, as amended, establishes eligibility and benefit provisions for the health plan. Eligible members may receive health, prescription, hearing, dental and vision coverage.

#### *Regular Retirement*

A member may retire and receive retirement benefits based on age and service after: (1) attaining age 50, if age and years of credited service combined are equal to or greater than 70; or (2) attaining age 55 with 5 or more years of credited service if elected, qualified, and seated not less than (a) 3 full or partial terms in the House of Representatives, (b) 2 full or partial terms in the Senate, or (c) 1 term in the House of Representatives and 1 term in the Senate. Within 30 days after becoming 55 years of age, a deferred vested member may elect to defer receipt of the retirement allowance to which the member is entitled, not to exceed 70-1/2 years of age.

A member's retirement benefit is computed using a benefit formula prescribed by the enabling statute and described below. The benefit is paid on a monthly basis.

For those legislators who first became members on or before January 1, 1995, the retirement benefit is calculated by multiplying 20% of the highest salary earned for the first 5 years of service, plus 4% of highest salary for each of the next 11 years of service, plus 1% of the highest salary for each additional year.

For those legislators who first became members after January 1, 1995, the retirement benefit is calculated by multiplying 3% of the highest salary for each year of service.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### **BENEFIT PROVISIONS** (continued)

#### ***Post Retirement Benefit Adjustment***

For those legislators who first became members on or before January 1, 1995, the annual retirement benefit payable to a retiree and/or his/her survivor is increased by 4% compounded annually. The adjustment is effective each January.

For those legislators who first became members after January 1, 1995, the annual retirement benefit payable to a retiree and/or his/her survivor is increased by 4%, but it is not compounded annually. The adjustment is effective each January.

#### ***Other Postemployment Benefits***

Under Section 50a and 50b of the Legislative Retirement System Act, all retirees and their dependents and survivors receive health, dental, vision, and hearing insurance coverage. The System also provides health, dental, vision, and hearing insurance coverage for deferred vested members who were members on or before January 1, 1995, and for their survivors and dependents. In addition, in accordance with state law, the System provides health insurance coverage to eligible former legislators (and their dependents) who meet certain vesting requirements established by statute and who belong to the State's Defined Contribution Plan. Member enrollment to the System's health plan is voluntary. The System pays for health, dental, vision, and hearing benefits on a modified pay-as-you-go basis; however, the State has begun to advance fund for future System health insurance costs. Public Act 200 of 2011 amended the System's enabling statute and closed the OPEB Plan. All qualified participants must have completed six (6) years of service before January 1, 2013 to qualify for health insurance in the System.

#### ***Life Insurance Benefits***

The System provides \$150,000 in life insurance coverage to active members. Deferred vested members are covered by varying amounts of life insurance, ranging from \$5,000 to \$150,000, depending on the member's date of deferral and, in some instances, the payment of an annual premium. Retirees are covered by varying amounts of life insurance, ranging from \$2,500 to \$75,000, depending on their retirement dates and, in some instances, the payment of an annual premium. The System prefunds life insurance benefits using the entry age actuarial cost method. The life insurance plan and the pension plan use the same actuarial assumptions, which are stated in the actuarial section.

#### ***Disability Benefit***

A member or deferred vested member who becomes disabled as determined by at least (2) licensed physicians appointed by the board of trustees is eligible for a disability benefit computed in the same manner described under Regular Retirement.

#### ***Survivor Benefit***

Upon the death of a vested member or deferred vested member who meets the service, but not the age requirements, for regular retirement (see Regular Retirement), or upon the death of a retiree, a surviving spouse shall be entitled to a benefit equal to 66 2/3% of the benefit the member would have received or was receiving at the time of death. Special provisions apply to surviving minor children and surviving spouses with minor children.

#### ***Refunds***

A member who leaves legislative service may request a refund of his/her contributions from the Members' Saving Fund. A member who receives a refund of contributions forfeits all rights to any future System benefits. Members who return to legislative service and who previously received a refund of their contributions may reinstate their service through repayment of the refund plus interest in accordance with the statute.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### *Basis of Accounting and Presentation*

The System's financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting, as provided by generally accepted accounting principles for governments. Contributions are recognized as revenue when due, pursuant to formal commitments, as well as statutory requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

GASB Statement No. 67, which was adopted during the fiscal year ended September 30, 2014, addresses accounting and financial reporting requirements for pension plans. The requirements for GASB Statement No. 67 requires changes in presentation of the financial statements, notes to the financial statements, and required supplementary information. Significant changes include an actuarial calculation of 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 receivables and investment balances. The total pension liability, determined in accordance with GASB Statement No. 67, is presented in Note 4 on page 26 and in the Required Supplementary Information on page 36.

#### *Contributions and Reserves*

The Legislative Retirement System Act provides for several "reserves" or "funds." These funds and the contributions and other monies allocated to them are described below.

Members' Savings Fund (MSF) — A member who first becomes a member on or before January 1, 1995, with less than 20 years of experience, contributed approximately 7% of salary to MSF. A member who first becomes a member after January 1, 1995, contributed approximately 5% of salary to MSF. Beginning January 1, 1999, there were no member contributions allocated to MSF except for approximately 4% of salary for the period beginning on January 1, 1999 and ending on December 31, 2000, for members who first becomes a member after December 1, 1994 and on or before January 1, 1995, in accordance with legislation. Eligible members may make other contributions to the MSF to purchase special service credit or to repay previously refunded contributions. MSF represents active member contributions (and interest credited from the Income Fund) less amounts transferred to reserves for retirement and amounts refunded to terminated members. At September 30, 2016, the balance in this account was \$0.2 million.

Members' Retirement Fund (MRF) — The MRF represents the reserves for payment of retirement benefits. At retirement a member's accumulated contributions (with interest) are transferred to the MRF (from the MSF). Interest is credited to the MRF (from the Income Fund), and monthly allowances are debited. At each fiscal year end an actuarial valuation determines the 100% funding requirements for the MRF. Any amounts required to 100% fund the MRF are transferred in the next fiscal year. At September 30, 2016, the balance in this account was \$37.3 million.

Survivors' Retirement Fund (SRF) — On and before January 1, 1999, all members with less than 20 years of service contributed 1/2% of salary to the SRF. After January 1, 1999, there are no member contributions allocated to the SRF. Interest is credited annually to the SRF (from the Income Fund), and member savings are transferred to the SRF from the MSF upon the death of a vested member, and additional state contributions may be made in order to make the SRF 100% funded. Survivors' monthly retirement allowances are paid from this fund upon the death of vested members, deferred vested members, and retirants. At September 30, 2016, the balance in this account was \$68.0 million.

Insurance Revolving Fund (IRF) — On and before January 1, 1999, all members contributed 1/2% of salary to the Insurance Revolving Fund. After January 1, 1999, there are no member contributions allocated to the IRF. State contributions, if any, member premiums, and interest from the Income Fund are credited to this fund. Life insurance benefits are paid from the IRF to beneficiaries of members, retirants, and deferred vested members. At September 30, 2016, the balance in this account was \$25.1 million.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### *Contributions and Reserves (continued)*

Health Insurance Fund (HIF) — On and before January 1, 1999, all members contributed 1% of salary to this fund. After January 1, 1999, member contributions are made as follows: (1) members who first became members on or before January 1, 1995, contribute 9% to the HIF; (2) members who first became members after January 1, 1995, contribute 7% to the HIF. This fund is also credited with employer contributions, court fees, other governmental contributions and interest income. Funds from this reserve are used to pay health care expenses and are accumulated to fully fund the future health insurance liabilities for the System. At September 30, 2016, the balance in this account was \$22.9 million.

### Use of Health Insurance Reserve Funds

In July, 2011, the Michigan Legislature passed, and Governor Rick Snyder signed, a new law that provides for the use of the health insurance reserve funds to pay for the current costs associated with the retiree health insurance plan. Before the passage of the new law, Public Act 99 of 2011, the system statute prohibited the use of certain prefunding dollars maintained in the health insurance reserve, and their investment income, until the retiree health insurance (OPEB) liabilities in the system became 100% funded. Public Act 99 of 2011 removed the 100%-funding requirement, and thus allows for the immediate use of the funds for health insurance costs of the system. The system used \$0.7 million from the reserve to pay health insurance costs for fiscal year ending September 30, 2016.

Income Fund (IF) — The IF is credited with all investment earnings and other miscellaneous income. Interest transfers are made annually to the other reserves, based on beginning balance. This fund also accounts for investment and administrative expenses and interest on refunds and transfers.

### *Fair Value of Investments*

System investments are presented at fair value, consistent with the provisions of GASB Statement No. 72, *Fair Value Measurement and Application*. Short-term, highly liquid debt instruments, including commercial paper, are reported at amortized cost. Additional disclosures describing investments are provided in Note 7.

### *Reporting Entity*

The System is a pension trust fund of the State of Michigan. As such, the System is considered part of the State and is included in the State's comprehensive annual financial report as a pension trust fund. The System and the System's Board of Trustees are not financially accountable for any other entities. Accordingly, the System is the only entity included in this financial report.

### *Investment Income*

Dividend income is recognized on the ex-dividend date, and interest income is recognized on the accrual basis as earned. Fair value changes are recorded as investment income or loss. Purchases and sales of investments are recorded as of the trade date.

### *Cost of Administering the System*

The retirement system shall pay the expenses for the administration of the retirement system, exclusive of amounts payable as retirement allowances and other benefits provided in this act, from the income fund.

### *Related Party Transactions*

The cash account includes \$1.2 million on September 30, 2016, which represents funds deposited 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. Earnings from these activities amounted to \$6,344 for the year ended September 30, 2016.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### *Excess Benefits*

Internal Revenue Service (IRS) Code Section 415 requires that, for individuals who receive retirement benefits in excess of established limits, these benefits should be recorded and reported outside of the pension fund in order to keep the qualified status of the plan. This includes coordination of benefits issued where a retiree participates in more than one qualified plan. The System provided excess benefits to seven (7) retirees, for a total amount of \$157,201 as of September 30, 2016.

### **NOTE 3 - CONTRIBUTIONS**

#### *Member Contributions*

On or before January 1, 1999, the following contributions were made by members of the System:

Members who first became members on or before January 1, 1995, contributed 9% of their salaries to the System. The contributions were placed in the following reserves created by the enabling statute: 7% to the Members' Savings Fund for the first 20 years of service; 0.5% to the Insurance Revolving Fund; 0.5% to the Survivors' Retirement Fund for the first 20 years of service; and 1% to the Health Insurance Fund.

Members who first became members on or after January 1, 1995, contributed 7% of their salaries to the System. The contributions were placed in the following reserves created by the enabling statute: 5% to the Members' Savings Fund; 0.5% to the Insurance Revolving Fund; 0.5% to the Survivors' Retirement Fund; and 1% to the Health Insurance Fund.

After January 1, 1999, the following contributions are made by the members of the System:

Members who first became members after December 1, 1994, contribute 9% of their salaries to the System. The contributions are placed in accordance with enabling statute to Health Insurance Fund.

Members who first became members after December 1, 1994 and on or before January 1, 1995, contributed 13% of their salaries to the System. The contributions were placed in the following reserves in accordance with the enabling statute: 9% to the Health Insurance Fund and 4% to the Members' Savings Fund until December 31, 2000. After December 31, 2000, these members contribute 9% of their salaries to the System. The contributions are placed in accordance with enabling statute to Health Insurance Fund.

Members who first became members after January 1, 1995, contribute 7% of their salaries to the System. The contributions are placed in the following reserve in accordance with the enabling statute: 7% to the Health Insurance Fund.

Member contributions are tax-deferred through the provisions of section 414(h)(2) of the Internal Revenue Code.

#### *State Contributions*

State contributions are made on the basis of actuarial requirements as determined by the System actuary and approved by the Board of Trustees. Through the annual state budgetary process, the Legislature annually appropriates, and the Governor approves, the State contributions along with certain court fee revenues, which are paid to the System pursuant to state statute. A chart showing State contributions is presented in the Required Supplementary Information in the financial section of this report.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### State Contributions (continued)

Pension Plan: State contributions are determined based on a statutorily required annual actuarial valuation. Actual employer contributions for retirement benefits was \$0 for fiscal year 2016. Annual required employer contributions based on the previous year actuarial valuations for pension included (percentage of annual covered payroll is not computed because the System is closed):

1. \$0.0 million for fiscal year 2016, for normal cost.
2. \$8.1 million for fiscal year 2016, for amortization of unfunded actuarial accrued liabilities.

Other Postemployment Health Plan (OPEB): Public Act 64 of 2012 began prefunding state contributions for prefunding OPEB costs in fiscal year 2012. Actual employer contributions for other postemployment benefits was \$4.5 million for fiscal year 2016. Annual required employer contributions based on the previous year actuarial valuations for pension included:

1. \$0.9 million for fiscal year 2016, for normal cost of OPEB representing 50.7% (before reconciliation) of annual covered payroll for fiscal year 2015.
2. \$9.6 million for fiscal year 2016, for amortization of unfunded actuarial accrued liability representing 553.0% (before reconciliation) of annual covered payroll for fiscal year 2015.

## 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)

<b>Net Pension Liability</b>	
Total Pension Liability	\$ 265,662,376
Plan Fiduciary Net Position	130,560,458
Net Pension Liability	<u>\$ 135,101,918</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	49.15%
Net Pension Liability as a percentage of Covered Payroll	188,466.09%
Total Covered Payroll	\$ 71,685

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

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

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of September 30, 2016, are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return*</u>
Large Cap Equity	27.0 %	3.0 %
Small Cap Equity	13.0	4.0
International Developed Equity	11.0	4.5
International Small Cap Equity	5.0	5.0
Emerging Markets	9.0	7.5
Fixed Income	18.0	0.6
Hedge Fund	5.0	3.2
Public Natural Resources	10.0	5.0
Cash	2.0	(0.5)
<b>Total</b>	<b>100.0 %</b>	

\*Rate of return does not include 2.0% inflation

### *Rate of Return*

For the year ended September 30, 2016, the annual money-weighted rate of return on pension plan investments, net pension plan investment expense, was 8.58%. The money weighted rate of return expresses investment performances, net of investment expense, adjusted for the changing amounts actually invested.

### *Discount Rate*

The single discount rate used to measure the total pension liability dropped to 3.95%, compared to the prior year's 4.58%. This single discount rate was based on an expected rate of return on pension plan investments of 7.0% and a municipal bond rate of 3.06% (the municipal bond rate is based on an index of 20-year general obligation bonds with an average AA credit rating, which is published by the Federal Reserve). The projection of cash flows used to determine this single 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 contributions rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2027. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2027, and the municipal bond rate was applied to all benefit payments after that date.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

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

As required by GASB Statement No. 67, the following presents the plan's net pension liability, calculated using a single discount rate of 3.95%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

	1% Decrease 2.95%	Current Single Discount Rate Assumption 3.95%	1% Increase 4.95%
Net Pension Liability/(Asset)	\$170,567,513	\$135,101,918	\$106,074,897

### *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, 2016, is based on the results of an actuarial valuation performed as of September 30, 2015 and rolled forward using generally accepted actuarial procedures.

The Schedule of Changes in Net Pension Liability and Schedule of Net Pension Liability, and related ratios, have been restated for fiscal years 2014 and 2015, due to retroactively applying a mortality assumption change. These schedules can be found on page 37 in the required supplementary information.

## Notes to General Purpose Financial Statements (Continued)

### NOTE 5 – PENSION PLAN

#### *Actuarial Valuations and Assumptions*

Actuarial valuations for pension 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 and mortality. Amounts determined regarding the net pension liability of the plan and the rate of return are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The Schedule of Contributions in RSI present trend information about the amounts contributed to the plan by employers in comparison to an amount that is actuarially determined.

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

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

#### *Summary of Actuarial Assumptions*

Valuation Date	September 30, 2015
Actuarial Cost Method	Entry-Age Normal
Asset Valuation Method	Market Value of Assets
Inflation	4.00%; No explicit price inflation assumption is used in this valuation
Salary Increases	4.00%
Investment Rate of Return	3.95% Single Discount Rate
Retirement Age	Age-based table of rates with 100% probability of retirement once a member is subject to term limits
Mortality	RP-2000 Combined Healthy Mortality Table, adjusted for mortality improvements to 2020 using projected scale BB

Note: Actuarial assumptions are periodically reviewed and modified, if needed, upon the recommendation of the actuary, and with approval of the board.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### NOTE 6 – POST EMPLOYMENT HEALTHCARE PLAN

#### *Funded Status*

For fiscal year 2015, the actuarial accrued liability (AAL) for OPEB was \$174.6 million, and the actuarial value of assets was \$21.8 million, resulting in an unfunded actuarial accrued liability (UAAL) of \$152.7 million and a funded ratio of 13%. The covered payroll (annual payroll of active members covered by the plan) was \$1.7 million, and the ratio of the UAAL to the covered payroll was 8,810%. The Schedule of Funding Progress, presented as required supplementary information following the notes to the financial statements, present multi-year trend information about whether the actuarial value of plan assets for the OPEB plan is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

#### *Actuarial Valuations and Assumptions*

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

The Schedule of Funding Progress, presented as required supplementary information following the notes to the financial statements, present multi-year trend information about whether the actuarial value of plan assets for the OPEB plan is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits. The Schedule of Contributions in RSI present trend information about the amounts contributed to the plans by employers in comparison to the ARC, an amount that is actuarially determined.

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

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

#### *Summary of Actuarial Assumptions*

Valuation Date	September 30, 2015
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Dollar Closed
Remaining Amortization Method	25 Years Closed
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Inflation Rate	4%
Projected Salary Increases	4%
Retirement Age	Age-based table of rates with 100% probability of Retirement once a member is subject to term limits
Investment Rate of Return	4% Per Year
Healthcare Cost Trend Rate	8.75% in 2016, grading to 4% in 2025
Mortality	RP-2000 Combined Healthy Mortality Table, adjusted for mortality improvements to 2020 using projected scale BB

Note: Actuarial assumptions are periodically reviewed and modified, if needed, upon the recommendation of the actuary, and with approval of the board.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### NOTE 7 - INVESTMENTS

#### *Investment Authority*

All investments made are subject to approval by the Board of Trustees, which has investment authority under the act. Investments made are subject to statutory regulations imposed under the Michigan 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 governmental bonds and notes, mortgages, real estate, and certain short-term and alternative investments. The System also contracts with independent investment advisors.

#### *Derivatives*

State investment statutes limits total derivative exposure to 15% of a fund's total asset value, and restricts uses to replication of returns and hedging of assets. The System Investment Policy Statement (IPS) has a target asset allocation of 5% for hedge funds, which may include derivatives. Systems investment in hedge funds has an exposure to derivatives of approximately 15-20%. The System invests in derivatives for investment purposes and not hedging purposes. As of September 30, 2016, total investments in hedge funds was 5.9%. The market value of the hedge funds at September 30, 2016 was \$9,033,702.

#### *Securities Lending*

The System did not participate in any securities lending activities.

#### *Risk*

In accordance with GASB statement 40, investments require certain disclosure regarding policies and the risks associated with them. The credit risk, custodial credit risk, foreign currency risk and interest rate risk are discussed in the following paragraphs.

#### *Credit risk*

Credit risk is the risk that an issuer will not fulfill its obligations. The System has a policy to maintain an overall weighted average of "Aa" or better by Moody's Investors Service and "AA" or better by Standards & Poor's for active management of fixed income securities. Mutual fund fixed income investments are not subject to this constraint; they are governed by the terms of their prospectuses. GASB 40 states that governments should disclose the credit quality ratings of external investment pools, money market funds, bond mutual funds and other pooled investments of fixed income securities in which they invest.

#### Debt Securities As of September 30, 2016

Investment Type	2016		
	Fair Value	Rating	
		S & P	Moody's
Mutual Funds**	\$ 5,209,210	BBB+	
	12,457,327	A-	A2
	12,282,953	Baa	
	\$ 29,949,490		

\*\* Average Rating

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### *Custodial credit risk*

The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the System's deposits may not be recovered. Deposits are exposed to custodial credit risk if they are not covered by depository insurance and the deposits are: a.) Uncollateralized, b.) Collateralized with securities held by the pledging financial institution, or c.) Collateralized with securities held by the pledging financial institution's trust department or agent but not in the depositor-government's name.

The common cash pool is managed by the State Treasurer and is authorized to invest surplus funds in depository accounts at financial institutions, bonds, notes, and other U.S. government debt, prime commercial paper, certificates of deposits, and special State investment programs. At September 30, 2016, the common cash pool held the majority of its funds in depository accounts 24.6% and prime commercial paper 70.1%. The State Treasurer's policy for common cash depository accounts requires financial institutions to secure State funds with collateral, to be organized under federal or State law, and to maintain an office in Michigan. The policy also restricts deposits to a maximum of 50% of the financial institution's net worth. At September 30, 2016, the carrying amount of deposits including time and demand deposits, was \$1.4 billion. The deposits were reflected in the accounts of the banks at \$1.4 billion. Of the bank balance, \$4.8 million was covered by federal depository insurance and \$1.3 billion was collateralized with securities held by the State's agent in the State's name. There were demand deposits of \$3.2 million exposed to custodial credit risk that were uninsured and uncollateralized. The State Treasurer's policy requires prime commercial paper to be rated "A-1" by S&P or "P-1" by Moody's or higher at purchase and places requirements and restrictions on the borrower. Additional details on the common cash pool policies and risk disclosures are described in the State of Michigan Comprehensive Annual Financial Report.

### *Concentration of Credit Risk*

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

System is prohibited by Public Act 314 of 1965, as amended, from investing in more than 5% of the outstanding stock or obligations of any one issuer or investing more than 5% of its assets in the stock or obligations of any one issuer.

At September 30, 2016, there were no investments in any one issuer that accounted for more than 5% of System's assets nor were there any investments totaling more than 5% of the stock or obligations of any one issuer.

### *Foreign currency risk*

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of deposits. Public Act 35 of 1997 requires State deposits be held in a financial institution which maintains a principal office or branch office located in the State of Michigan. The System had no common cash deposits subject to foreign currency risk at September 30, 2016.

### *Custodial credit risk associated with investments*

In accordance with GASB statement 40, investments also require certain disclosures regarding policies and procedures with respect to the risks associated with them. The custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the System 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: a.) the counterparty, or b.) the counterparty's trust department or agent but are not in the government's name. The State Treasurer does not have an investment policy for managing custodial credit risk. At September 30, 2016, the System's investments were not exposed to custodial credit risk.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### *Interest rate risk associated with investments*

Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of an investment. The System has an 18% target allocation of fixed income securities, which are affected by interest rates because they are a debt investment. At September 30, 2016, the fair value was \$29,949,490, with the investment activity for the year producing a total rate of return of 4.5%, and a rate of return since inception of 3.1%. The projected duration is 2.7 years. The System does not have a policy for controlling interest rate risk.

### *Foreign currency risk associated with investments*

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of investments. The System invests in various foreign investments (including, but not limited to, equities, fixed income, and mutual funds), which are subject to various limitations in accordance with the System's Investment Policy Statement (or "IPS") (which incorporates the provisions of the Public Employee Retirement System Investment Act, or Public Act 314 of 1965, as amended). IPS foreign investment restrictions include a 20% limitation of the total assets of the system and, additionally, a 5% limitation in the outstanding foreign securities of a single issuer (allowances are made for the daily market pricing fluctuations of an investment). New investments in countries that have been identified by the United States Department of State as engaging in or sponsoring terrorism are prohibited, and existing investments in any such newly-identified country shall be quickly divested in accordance with the law. At September 30, 2016, the System held the following investments subject to foreign currency risk:

### Foreign Currency Risk

As of September 30, 2016

(Value in US dollars)

Country	Currency	Alt. Invest	Mutual Funds	International Equities	TOTAL
<b><u>PACIFIC</u></b>					
Chinese	Yuan	\$	\$	\$ 171,168	\$ 171,168
New Taiwan	Dollar			151,132	151,132
<b><u>EUROPE</u></b>					
Pound	Sterling			559,042	559,042
European Union	Euro			624,747	624,747
<b><u>MIDDLE EAST</u></b>					
Israel	Shekel			253,055	253,055
<b><u>VARIOUS</u></b>					
		16,266,966	43,661,488		59,928,454
	Total	\$16,266,966	\$43,661,488	\$ 1,759,145	\$ 61,687,599

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### Significant Accounting Policies

As of September 30, 2016, the Retirement System applies Governmental Accounting Standards Board (“GASB”) Statement No. 72, Fair Value Measurement and Application. GASB Statement No. 72 provides guidance for determining a fair value measurement for reporting purposes and applying fair value to certain investments and disclosures related to all fair value measurements.

### Fair Value Measurements

The MLRS categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Not all investments held by the MLRS are recorded at fair value. GASB 72 allows for certain investments to be recorded at cost (or amortized cost or any other valuation method), and therefore, they are not presented in the fair value hierarchy table. Equity and fixed income securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Equity Swaps and Fixed Income securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique and other significant observable inputs. Equity and fixed income securities classified as Level 3 of the fair value hierarchy are valued using a third party data and reports that are unobservable. Securities reported at Net Asset Value (NAV) are valued using the most recent third party statement adjusted for cash flows as of September 30, 2016. Investments that are measured at fair value using the Net Asset Value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy below.

### Investment by Fair Value Level

As of September 30, 2016

<b>EQUITY</b>	<b>Level 1</b>
Depository Receipts	\$ 1,350,027
Common Stocks	46,793,516
Commingled Funds and ETF's	86,648,952
Real Estate Investment Trusts	1,036,363
Total Investments at fair value	<u>\$ 135,828,858</u>
Investments measured at NAV	
Alternative Investments	\$ 16,266,966

Additional disclosures for fair value measurements of investments in certain entities that calculate the Net Asset Value per Share (or its equivalent)

### Alternative Investments

Total investments measured at the NAV	\$16,266,966
Unfunded commitments	\$0

There are two investments reported at NAV:

One investment is a fund that requires 95 days' notice for redemptions; generally redemptions are only allowed quarterly. A full redemption would require with 5% of the NAV retained until all costs are settled.

One investment is a hedge funds that requires 5 days notice for any redemption; redemptions must occur at the end of each month.

# FINANCIAL SECTION

## Notes to General Purpose Financial Statements (Continued)

### NOTE 8 - ACCOUNTING CHANGES

GASB issued Statement No. 72, *Fair Value Measurement and Application*. This Statement addresses accounting and financial reporting issues related to fair value measurements. The definition of fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This Statement provides guidance for determining a fair value measurement for financial reporting purposes. This Statement also provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. This Statement is effective for participating employers for their fiscal years beginning after June 15, 2015. This Statement was implemented in fiscal year 2016.

### NOTE 9 - NEW ACCOUNTING PRONOUNCEMENTS

GASB issued Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. This Statement replaces Statements No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*. It also includes requirements for defined contribution OPEB plans that replace the requirements for those OPEB plans in Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*, as amended, Statement 43, and Statement No. 50, *Pension Disclosures*. The objective of this Statement is to improve the usefulness of information about postemployment benefits other than pensions (other postemployment benefits or OPEB) included in the general purpose external financial reports of state and local governmental OPEB plans for making decisions and assessing accountability. This Statement is effective for fiscal years beginning after June 15, 2016.

GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefit Plans Other Than Pensions*. This Statement replaces Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*; and Statement No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*; The principal objective of this Statement is to improve the usefulness of information for decisions made by the various users of the general purpose external financial reports (financial reports) of governments whose employees—both active employees and inactive employees—are provided with postemployment benefits other than pensions. These benefits are referred to as other postemployment benefits (OPEB). One aspect of that objective is to provide information about the effects of OPEB-related transactions and other events on the elements of the basic financial statements. This information will assist users in assessing accountability and the relationship between a government's inflows of resources and its total cost (including OPEB expense) of providing government services each period. Another aspect of that objective is to provide users with information about the government's OPEB obligations and the resources, if any, available to satisfy those obligations. This Statement is effective for participating employers for their fiscal years beginning after June 15, 2017.

GASB issued Statement No. 82, *Pension Issues*. This Statement is an amendment of GASB Statements No. 67, No. 68, and No. 73. The objective of this Statement is to address certain issues that have been raised with respect to Statements No. 67, *Financial Reporting for Pension Plans*, No. 68, *Accounting and Financial Reporting for Pensions*, and No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68*, and Amendments to Certain Provisions of GASB Statements 67 and 68. Specifically, this Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. This Statement is effective for fiscal years beginning after June 15, 2016.

# FINANCIAL SECTION

## Required Supplementary Information

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

Expressing the actuarial value of assets as a percentage of the actuarial accrued liability provides one (1) indication of the OPEB plan's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the system. Trends in unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the system.

#### Other Post Employment Benefits<sup>(2)</sup> (in thousands)

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 AAL (a/b)	Covered Payroll <sup>(1)</sup> (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2008	\$14,319	\$132,628	\$118,309	11%	\$11,859	998%
2009	14,588	136,870	122,282	11	11,718	1,044
2010	15,886	155,259	139,373	10	11,598	1,202
2011	15,179	140,696	125,517	11	3,659	3,431
2012	20,825	145,161	124,337	14	3,587	3,466
2013	22,806	153,666	130,860	15	3,312	3,951
2014	23,625	158,568	134,943	15	2,497	5,404
2015	21,840	174,564	152,724	13	1,734	8,810

<sup>(1)</sup> October based payrolls

<sup>(2)</sup> Includes members in both the defined benefit plan and the defined contribution plan

# FINANCIAL SECTION

## Required Supplementary Information (continued)

### Schedule of Changes in Net Pension Liability

Fiscal years ending September 30,	<u>2016</u>	<u>2015<sup>(1)</sup></u>	<u>2014<sup>(1)</sup></u>
<b>Total pension liability</b>			
Service Cost	\$ 73,996	\$ 61,979	\$ 56,715
Interest on the Total Pension Liability	11,025,152	11,839,056	11,297,018
Benefit Changes	-	-	-
Difference between expected and actual experience of the Total Pension Liability	1,899,056	405,924	-
Assumption Changes	18,936,985	20,079,527	24,547,477
Benefit Payments and Refunds	(13,919,312)	(14,495,307)	(13,550,106)
<b>Net Changes in Total Pension Liability</b>	<u>18,015,877</u>	<u>17,891,179</u>	<u>22,351,104</u>
<b>Total Pension Liability - Beginning</b>	<u>247,646,499</u>	<u>229,755,320</u>	<u>207,404,216</u>
<b>Total Pension Liability - Ending (a)</b>	<u>\$ 265,662,376</u>	<u>\$ 247,646,499</u>	<u>\$ 229,755,320</u>
<b>Plan Fiduciary Net Position</b>			
Contributions - Employer	\$ -	\$ -	\$ -
Contributions - Member	3,648	3,226	5,662
Pension Plan Net Investment Income	11,324,783	(6,545,332)	14,868,119
Benefit Payments and Refunds	(13,919,312)	(14,495,307)	(13,550,106)
Pension Plan Administrative Expense	(405,381)	(362,431)	(430,200)
Other	-	-	-
<b>Net Change in Plan Fiduciary Net Position</b>	<u>(2,996,262)</u>	<u>(21,399,844)</u>	<u>893,475</u>
<b>Plan Fiduciary Net Position - Beginning</b>	<u>133,556,720</u>	<u>154,956,564</u>	<u>154,063,089</u>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<u>\$ 130,560,458</u>	<u>\$ 133,556,720</u>	<u>\$ 154,956,564</u>
<b>Net Pension Liability - (a) - (b)</b>	135,101,918	114,089,779	74,798,756
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	49.15%	53.93%	67.44%
<b>Covered Employee Payroll</b>	\$ 71,685	\$ 71,685	\$ 71,685
<b>Net Pension Liability as a Percentage of Covered Employee Payroll</b>	188,466.09%	159,154.33%	104,343.66%

<sup>(1)</sup> Schedule has been restated due to retroactively applying mortality assumption change.

### Schedule of Net Pension Liability

Fiscal Year Ending September 30	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension as a % of Covered Payroll
2014 <sup>(1)</sup>	\$229,755,320	\$154,956,564	\$74,798,756	67.44 %	\$71,685	104,343.66 %
2015 <sup>(1)</sup>	247,646,499	133,556,720	114,089,779	53.93	71,685	159,154.33
2016	265,662,376	130,560,458	135,101,918	49.15	71,685	188,466.09

<sup>(1)</sup> Schedule has been restated due to retroactively applying mortality assumption change.

# FINANCIAL SECTION

## Required Supplementary Information (continued)

### Schedules of Contributions

#### Pension Benefits

<b>Fiscal Year Ended Sept. 30</b>	<b>Actuarially Determined Contribution</b>	<b>Actual Employer Contributions</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll</b>	<b>Actual Contribution as a % of Covered Payroll</b>
2007	\$394,957	\$394,957	\$0	\$1,332,400	29.6 %
2008	0	0	0	1,332,400	0.0
2009	269,944	269,944	0	1,151,100	23.5
2010	774,898	0	774,898	1,173,100	0.0
2011	1,890,998	0	1,890,998	143,370	0.0
2011 <sup>^</sup>	2,915,182	0	2,915,182	143,370	0.0
2012	4,390,831	0	4,390,831	71,685	0.0
2013	5,993,209	0	5,993,209	71,685	0.0
2014	6,327,209	0	6,327,209	71,685	0.0
2015	7,843,450	0	7,843,450	71,685	0.0
2016	8,063,327	0	8,063,327	71,685	0.0

<sup>^</sup>Under revised mortality assumptions.

#### Other Post Employment Benefits<sup>(1)</sup>

<b>Fiscal Year Ended Sept. 30</b>	<b>Valuation Date Sept. 30</b>	<b>Annual Required Contribution (ARC)</b>	<b>Actual Employer Contributions</b>	<b>Other Governmental Contributions</b>	<b>Percent Contributed</b>
2009	2005	\$ 7,978,764	\$ 4,302,354	\$ 160,758	55.9 %
2010	2009	10,842,010	4,514,665	150,113	43.0
2011	2010	11,817,097	4,287,509	880,159	43.7
2012	2011	9,674,141	7,840,322	225,590	83.4
2013	2012	9,630,395	4,240,388	153,256	45.6
2014	2013	9,381,877	4,323,381	167,078	47.9
2015	2014	9,362,804	4,473,374	180,690	49.7
2016	2015	10,464,110	4,537,633	207,065	45.3

<sup>(1)</sup> Includes members in both the defined benefit plan and the defined contribution plan

## Required Supplementary Information (continued)

### Schedule of Investment Returns

Fiscal Years Ending September 30,	Annual Return*
2014	9.76 %
2015	(4.61)
2016	8.58

\* Annual money-weighted rate of return, net of investment expenses

#### NOTE A - DESCRIPTION

Ten-year historical trend information designed to provide information about the System's progress 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 interested parties to assess the progress made by the System in accumulating sufficient assets to pay pension benefits and other postemployment benefits as they become due. In accordance with GASB Statement No. 67, three years of historical trend information is provided. Also, because this is the eighth year the System is reporting other postemployment benefits in accordance with GASB Statement No. 43, eight years of historical trend information is provided.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the pension benefit obligation as a factor. A change in future actuarial valuations, beginning with fiscal year ending September 30, 2015, was made to use the RP2000 Mortality Table projected 20 years with Scale BB. This change was made to incorporate a margin between male and females, for future mortality improvement.

The Schedule of Funding Progress and Schedule 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 Schedule of Employer Contributions is presented to show the responsibility of the State 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 performances, net of pension plan investment expense, adjusted for the changing amounts actually invested.

# FINANCIAL SECTION

## Required Supplementary Information (continued)

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

**Valuation Date:** Actuarially determined rates are calculated as of September 30, each year, which is 1 day prior to the beginning of the fiscal year in which contributions are reported.

### **Methods and Assumptions Used to Determine Contribution Rates:**

Valuation Date	September 30, 2015
Actuarial Cost Method	Entry-Age Normal
Amortization Method	Level Dollar
Remaining Amortization Method	10-Years Open
Asset Valuation Method	5-Year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return	7%
Projected Salary Increases	4%
Cost-of-living Adjustments	4% Annual Compounded (non-compounded for legislators who first became members after 1/1/95)

## Supporting Schedules

### Summary Schedule of Administrative Expenses For Year Ended September 30, 2016

	<u>2016</u>
Personnel Services	\$ 328,499
Actuarial Services	67,280
Audit	28,600
Attorney & other Professional Services	1,902
Postage, Telephone and other	<u>45,389</u>
<b>Total Administrative Expenses</b>	<b><u><u>\$ 471,670</u></u></b>

### Schedule of Investment Expenses\* For Year Ended September 30, 2016

	<u>2016</u>
Management Fees	\$ 398,971
State Treasurer and custody fees	24,308
Other investment expenses	<u>96,750</u>
<b>Total Investment Expenses</b>	<b><u><u>\$ 520,029</u></u></b>

\*Mutual fund management fees are netted against returns earned.

### Schedule of Payments to Consultants For Year Ended September 30, 2016

	<u>2016</u>
Dykema Gossett	\$ 1,902
Gabriel Roeder	<u>67,280</u>
<b>Total Payments to Consultants</b>	<b><u><u>\$ 69,182</u></u></b>

# FINANCIAL SECTION

## Supporting Schedules (continued)

### Detail of Changes in Plan Fiduciary Net Position (Pension and Other Postemployment Benefits) For Year Ended September 30, 2016

	Reserves for year ended September 30, 2016						Total
	Member Savings Fund	Member Retirement Fund	Survivors Retirement Fund	Insurance Revolving Fund	Health Insurance Fund	Income Fund	
<b>ADDITIONS</b>							
Member contributions:							
Other member contributions	\$	\$	\$	\$ 3,648	\$ 6,452	\$	\$ 10,100
DC health premium					125,639		125,639
Employer contributions					3,733,500		3,733,500
Employer contributions-Court fees					804,133		804,133
Other governmental contributions					207,065		207,065
Total contributions:				3,648	4,876,789		4,880,437
Investment income (loss)							
Net increase (decrease) in fair value of investments					1,475,899	9,025,604	10,501,503
Interest, dividends and other					431,826	2,746,122	3,177,948
Total investment income (loss)					1,907,726	11,771,726	13,679,451
Less investment expenses					(73,086)	(446,943)	(520,029)
Net investment income (loss)					1,834,640	11,324,783	13,159,423
Miscellaneous income					626,101		626,101
Total additions:				3,648	7,337,530	11,324,783	18,665,961
<b>DEDUCTIONS</b>							
Benefits & refunds paid to plan members & beneficiaries:							
Retirement benefits		11,398,950	2,052,647				13,451,597
Health benefits					5,764,052		5,764,052
Dental benefits					404,929		404,929
Death benefits				395,000			395,000
Refund of contribution & interest	2,534		61,780			8,401	72,715
Administrative expenses					66,289	405,381	471,670
Total deductions:	2,534	11,398,950	2,114,427	395,000	6,235,271	413,782	20,559,964
Net increase (decrease) in net position	(2,534)	(11,398,950)	(2,114,427)	(391,352)	1,102,259	10,911,001	(1,894,003)
Other changes in net position:							
Interest/loss allocations	9,499	3,677,819	5,298,351	1,925,331		(10,911,001)	
Transfer upon retirements	(54,556)	54,556					
Total other changes in net position	(45,056)	3,732,375	5,298,351	1,925,331		(10,911,001)	
Net increase(decrease) after changes	(47,590)	(7,666,575)	3,183,924	1,533,979	1,102,259		(1,894,003)
<b>Net position restricted for pension benefits and OPEB:</b>							
<b>Beginning of Year:</b>	283,930	44,961,987	64,773,285	23,537,518	21,839,677		155,396,397
<b>End of Year:</b>	\$ 236,340	\$ 37,295,412	\$ 67,957,208	\$ 25,071,498	\$ 22,941,936	\$	\$ 153,502,394

# **INVESTMENT SECTION**

**Michigan Legislative Retirement System**

**Comprehensive Annual Financial Report  
for the Fiscal Year Ended September 30, 2016**

## **INVESTMENT SECTION**



**Report on Investment Activity  
Asset Allocation  
Investment Summary  
List of Largest Assets Held  
Schedule of Investment Fees  
Schedule of Fees and Commissions**

# INVESTMENT SECTION

## Report on Investment Activity

### INTRODUCTION

The System's Board of Trustees is the investment fiduciary for the system in accordance with the law. Investment decisions, including investment policies and procedures, are subject to statutory regulations imposed by the Michigan Public Employee Retirement System Investment Act, Public Act 314 of 1965, as amended.

As the investment fiduciary for the system, the board's responsibilities include, but are not limited to: (1) establishing an investment policy and asset allocation for the System pension fund; (2) prudently selecting investment managers and consultants for the system, and (3) conducting periodic reviews to ensure that its policies are followed and that its investment professionals perform satisfactorily in accordance with established standards and goals.

The State Treasurer for the State of Michigan acts as the custodian for the System funds pursuant to state law, and the board has also contracted with independent investment advisors to assist with investment decisions and to manage the pension fund assets.

### INVESTMENT OBJECTIVES

The System's primary investment objective is to provide a real rate of return, net of inflation, administrative and investment expenses, sufficient to support the system's ability to meet its obligations to plan participants and beneficiaries without undue exposure to risk. In absolute terms, this return objective should approximate the System's actuarial assumed rate of return, which is currently 7%. The System seeks to attain investment results over a full market cycle. It does not expect that all investment objectives will be attained in each year and recognizes that over various periods of time the System investment results may produce significant "over" or "under" performance relative to broad markets. For this reason, the board of trustees takes a LONG-TERM perspective and will measure quantitative investment returns over a 5-year moving period. Managers and other parties are also expected to meet qualitative performance objectives (adherence to its investment philosophy and System policies, continuity of firm personnel and practices, etc.) as established by the board.

### MARKET REVIEW

The market review is prepared by the Fund Evaluation Group (FEG). FEG is the investment advisor for the System and they monitor all the investments and the performance of the investments.

*Twelve Months Ending September 30, 2016*

While much of the focus was on the election and to some extent central bank policies, the equity and fixed income markets quietly plodded along and were generally positive during the Legislative Retirement System's (LRS) fiscal year which ended September 30, 2016.

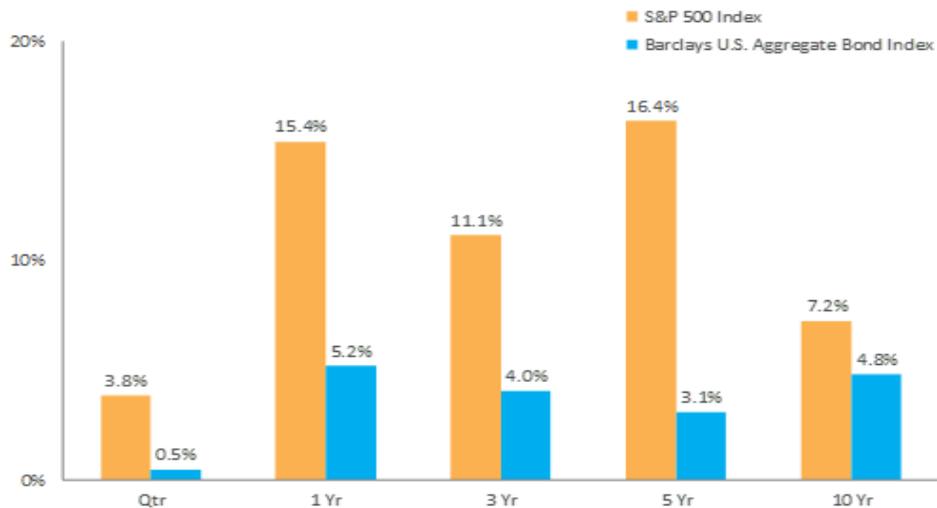
In the continuation of the risk-on/risk-off cycle, domestic small cap holdings ended up having a strong year, albeit one that was marked with significant swings in value during the period under review. Those securities classified as having a "growth" style continued to produce good results, but over LRS's fiscal year "value" type stocks produced the best returns. In contrast to the double-digit returns posted in the equity markets, the fixed income markets were caught in a rinse/repeat cycle waiting for the Federal Reserve (the Fed) to make its next interest rate move. In the end, the bond market (as measured by the Barclays U. S. Aggregate Bond Index) posted a positive return but nothing as impressive as those generated in the equity markets.

# INVESTMENT SECTION

## Report on Investment Activity (continued)

### MARKET REVIEW (continued)

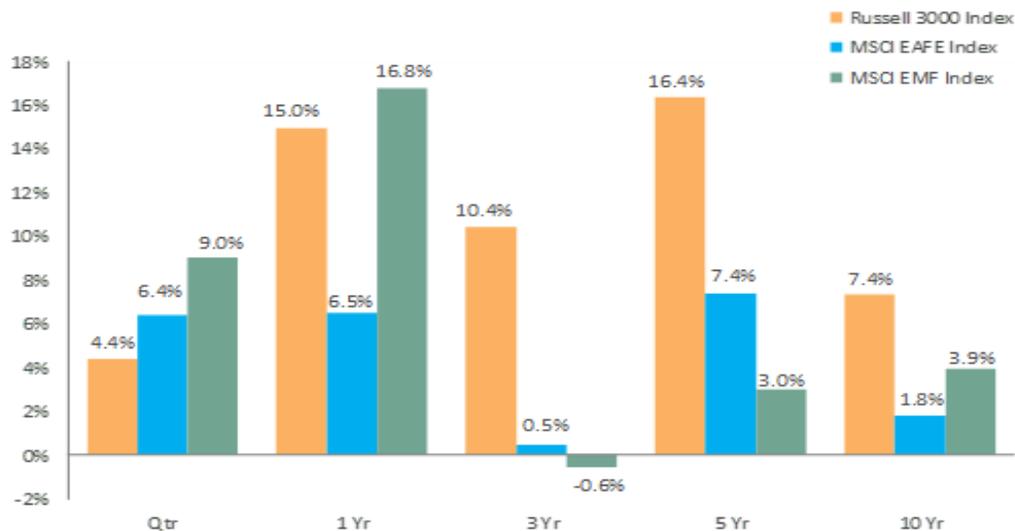
Stocks vs. Bonds



Data Sources: Standard & Poor's and Barclays

A weakening dollar against some currencies helped boost international equity market returns during the fiscal year, which was a benefit to the LRS portfolio. Likewise, the long awaited comeback in emerging markets (EM) occurred during the period making it one of the best performing asset classes during the period under review. As the fiscal year closed, the MSCI Emerging Markets Index ended the period with a return in excess of a 16 percent. By way of background, leading up to 2014 emerging markets (in general) benefited from China's dramatic growth. This growth revolved around the concept that China would move 250 million people from the country to the city. (As a relative mark, the U. S. only has about 330 million people in total.) EM countries benefited from China's growth by providing the commodities and other resources they needed. It became apparent that China could not sustain this growth pattern and as it slowed, the EM countries fell hard. Now that China is on a more realistic growth path, the opportunities for EM appear compelling.

U.S., International, and Emerging Market Equities



Data Sources: MSCI Barra and Russell

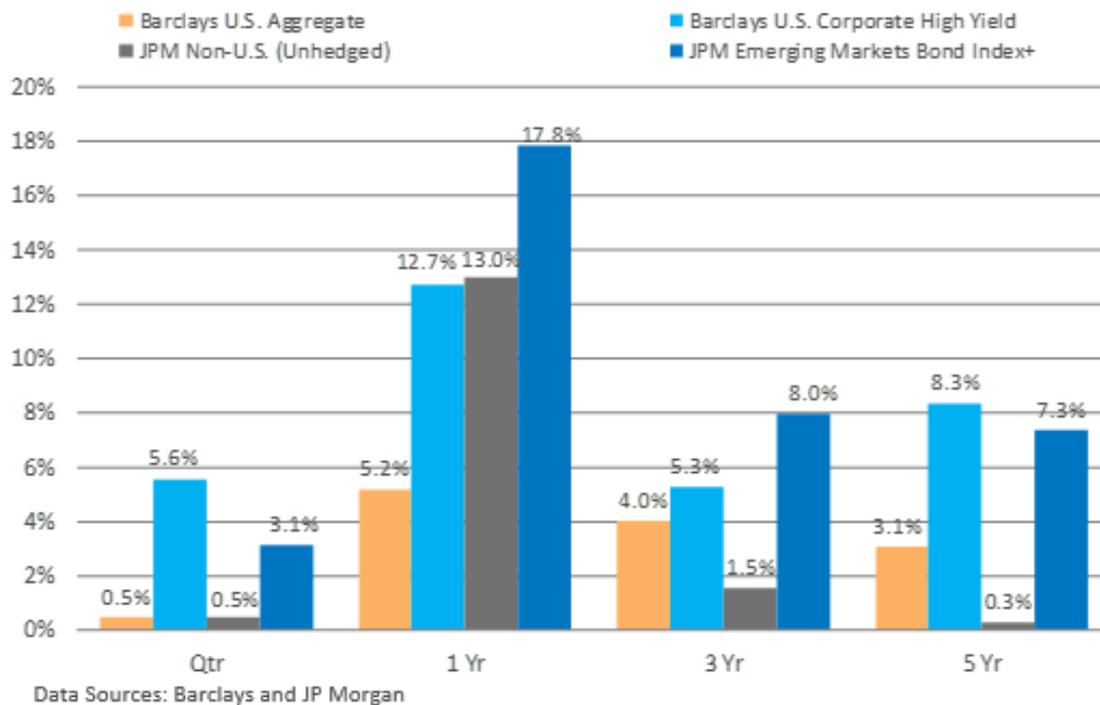
# INVESTMENT SECTION

## Report on Investment Activity (continued)

### MARKET REVIEW (continued)

Fixed income investment managers (in general) positioned their portfolios for an interest rate rise that, as of the fiscal year-end, did not materialize. As a result, most were defensively positioned and generated modest returns during the period. The best performing securities during the fiscal year were in the high yield and non-U.S. sectors. Long duration U.S. Treasury bonds also benefited during the period as investors sought the perceived safety of the U.S. holdings. While it is expected that interest rates will rise, LRS is mindful of a “surprise” and continues to be cautious with this part of the portfolio.

#### Broad Fixed Income



From a return perspective, the LRS investment portfolio posted a strong 9.3% time-weighted, net-of-fees total return for the one-year period ending September 30, 2016. Extending the analysis out over a longer period, the LRS portfolio’s time-weighted net-of-fees return over the five years ending September 30, 2016 was 10.0%. Of significance, this return exceeds the actuarially assumed rate-of-return of 7% over the five year rolling periods.

The LRS portfolio remains well-diversified and positioned to generate results under a wide variety of economic scenarios. The portfolio has both domestic and international equity exposure with the fixed income segment invested in a wide variety of disparate segments. The portfolio includes inflation protection in the form of commodities and exposures related to energy sector and non-traditional exposures to add balance to the total portfolio.

As with past practice, the Trustees of LRS continued their ongoing due diligence reviews, meeting on a regular basis to discuss markets, managers and portfolio positioning. Rather than shun risk or even attempt to predict it, the Trustees continue to diversify the portfolio in a way that avoids excess concentration in a single risk. By doing so they recognize long-term tendencies can help raise the probability of investment success by taking a smoother path. The Trustees further recognize that near-term price action can and will occasionally become unexpectedly detached from fair value and that a commitment to diversification can help stabilize returns over both the short and the long-term.

# INVESTMENT SECTION

## Report on Investment Activity (continued)

### Schedule of Investment Results

for period ending September 30, 2016

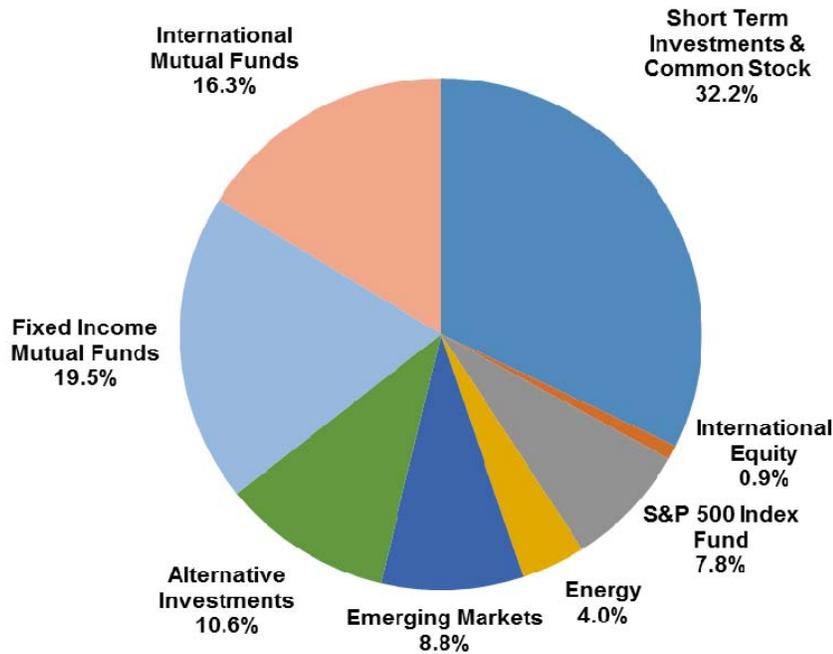
Investment Category	Current Year	Annualized Rate of Return <sup>1</sup>		
		3 years	5 years	10 years
Total Portfolio	9.3 %	4.5 %	10.0 %	6.1 %
Large Cap Equity Managers				
Wellington	13.0	12.3	17.3	8.3
Barrow, Hanley, Mewhinney & Strauss	12.9	8.0	14.8	5.3
Comerica	15.5	11.2	16.4	7.3
S&P 500 Index	15.4	11.1	16.4	7.2
Small Cap Equity Managers				
Rice Hall James	4.2	4.7	12.5	8.4
Cramer Rosenthal McGlynn	16.7	7.4	15.2	6.7
Russell 2000 Index	15.5	6.7	15.8	7.1
International Equity Managers				
EuroPacific Growth	8.1	3.0	8.7	3.9
MSCI AC World Index	9.3	0.2	6.0	2.2
Templeton Inst'l Foreign Smaller Co.	6.9	2.1		
MSCI Small Cap EAFE Index	12.3	5.1		
Lazard Emerging Markets	23.6	(1.2)	3.7	4.7
MSCI Emerging Markets Index	16.8	(0.6)	3.0	3.9
Morgan Stanley Frontier Emerging Markets	3.9			
MSCI Frontier Markets Index	0.9			
Fixed Income Managers				
DoubleLine Total Return Bond Fund	3.6	4.3		
Dodge & Cox Income Fund	7.1			
Franklin Templeton Global Bond	0.7	(0.4)	3.0	
Barclays US Aggregate Bond Index	5.2	4.0		
Natural Resources Managers				
JPMorgan Alerian MLP Fund	11.8	(5.6)		
Alerian MLP Index	12.7	(4.8)		
Parametric Equal Sector Commodity	4.9			
Dow Jones UBS Commodities Index	(2.6)			
Hedge Fund Manager				
Ironwood International Ltd	0.6	4.9	5.9	
HFRI FOF: Conservative Index	0.4	2.2	3.1	
Barclays US Aggregate Bond Index	5.2	4.0	3.1	

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

# INVESTMENT SECTION

## Asset Allocation

As of September 30, 2016



### Investment Summary As of September 30, 2016

Investment Category	Fair Value	Percentages of Fair Value	Percentages of Income/(Loss)	Fiscal Year Income/(Loss)**
Short Term Investments* & Common Stocks	\$ 49,463,803	32.2 %	72.6 %	\$ 9,937,652
International Equity	1,350,027	.9	(0.2)	(26,579)
S&P 500 Index Fund	12,064,679	7.8	12.4	1,702,613
Energy	6,182,505	4.0	(22.1)	(3,026,607)
Emerging Markets	13,463,735	8.8	11.5	1,567,432
Alternative Investments	16,266,967	10.6	0.6	81,094
Fixed Income Mutual Funds	29,949,490	19.5	12.4	1,700,596
International Mutual Funds	24,988,544	16.3	12.7	1,743,215
<b>Total Investments</b>	<b>\$ 153,729,750</b>	<b>100.0 %</b>	<b>100.0 %</b>	<b>\$ 13,679,417</b>

\* Short Term Investments are equity in the State Treasurer's Common Cash Fund.

\*\* Includes realized/unrealized gains and losses.

# INVESTMENT SECTION

## Largest Assets Held

### Largest Stock Holdings (By Fair Value)

September 30, 2016

Rank	Shares	Stocks	Fair Value
1	822	AMAZON.COM INC	\$ 688,269
2	857	ALPHABET INC CL C	666,138
3	7,232	MEDTRONIC PLC	624,845
4	4,247	UNITEDHEALTH GROUP INC	594,580
5	4,041	FACEBOOK INC A	518,339
6	11,192	FTI CONSULTING INC	498,716
7	4,308	APPLE INC	487,019
8	3,768	HOME DEPOT INC	484,866
9	37,714	MUELLER WATER PRODUCTS INC A	473,311
10	5,600	PHILLIPS 66	451,080

A complete list of stock holdings is available from the System.

## Schedule of Investment Fees

### Schedule of Investment Fees at September 30, 2016

#### Investment Managers Fees\*:

	<u>Assets under Management</u>	<u>Fees</u>
World Asset Mgt/Comerica	\$12,064,679	\$ 6,932
Cramer Rosenthal McGlynn	10,953,715	101,829
Barrow Hanley Mewhinney & Strauss	14,218,914	100,032
Rice Hall James	10,689,773	93,200
Wellington	14,111,884	96,978
		<u>398,971</u>
Other Investment Fees		
State Treasurer		24,308
Fund Evaluation Group		96,750
		<u>121,058</u>
	TOTAL	<u>\$ 520,029</u>

\*Europacific Growth Fund, Lazard Emerging Markets, Ironwood International Ltd., Parametric Clifton, Dodge & Cox, DoubleLine, JPM Alerian, Morgan Stanley and Franklin Templeton management fees are netted against return earned by mutual fund money managers.

# INVESTMENT SECTION

## Schedule of Fees and Commissions

Fiscal Year Ended September 30, 2016

<u>Investment Broker Name</u>	<u>Shares Traded</u>	<u>Total Value of Commissions</u>	<u>Average Commission Per Share</u>
ALLEN & COMPANY LLC	305	10.68	0.04
ANCORA SECIRITIES INC	620	18.60	0.03
AUTONOMOUS	11,500	402.50	0.04
AVONDALE PARTNERS LLC	3,086	123.44	0.04
BARCLAYS CAPITAL LE	20,331	758.25	0.04
BB&T SECURITIES, LLC	2,200	88.00	0.04
BERENBERG	5,600	196.00	0.04
BLAYLOCK ROBERT VAN LLC	28,412	852.36	0.03
BLOOMBERG TRADEBOOK LLC	19,305	204.73	0.01
BMO CAPITAL MARKETS	890	35.60	0.04
BREAN CAPITAL LLC	8,935	357.40	0.04
BROADCORT CAPITAL CORP	945	33.08	0.04
BTIG, LLC	41,088	578.21	0.01
BUCKINGHAM RESEARCH GROUP INC	2,060	78.40	0.04
BURKE ANDQUICK PARTNERS LLC	3,050	122.00	0.04
CANACCORD GENUITY INC.	1,960	78.40	0.04
CANTOR FITZGERALD + CO.	20,375	515.79	0.03
CAPITAL INSTITUTIONAL SVCS INC EQUITIES	1,100	38.50	0.04
CHEEVERS & CO. INC.	23,242	464.84	0.02
CITIGROUP GLOBAL MARKETS INC	11,350	406.16	0.04
CONVERGEX EXECUTION SOLUTIONS LLC	57,161	2,148.26	0.04
CONVERGEX LLC	69,423	2,763.52	0.04
CORNERSTONE MACRO LLC	1,000	35.00	0.04
COWEN AND COMPANY, LLC	11,816	465.12	0.04
CRAIG - HALLUM	23,533	779.12	0.03
CREDIT SUISSE SECURITIES (USA) LLC	71,717	1,675.05	0.02
DAIWA SECURITIES AMERICA INC	500	17.50	0.04
DAVIDSON D.A. + COMPANY INC.	2,772	110.88	0.04
DEUTSCHE BANK SECURITIES INC	42,359	1,071.23	0.03
DOUGHERTY & COMPANY LLC	5,995	239.80	0.04
FIDELITY CAPITAL MARKETS	4,475	179.00	0.04
FIRST ANALYSIS SECURITIES CORP	3,869	131.32	0.03
FRANK RUSSELL SEC/BROADCORT CAP CLEARING	2,100	73.50	0.04
GOLDMAN SACHS + CO	38,018	1,018.00	0.03
GOLDMAN SACHS INTERNATIONAL	1,417	23.22	0.02
GORDON HASKETT CAPITAL CORP	3,000	120.00	0.04
GORDON, HASKETT & COMPANY	620	24.80	0.04
GREEN STREET TRADING, LLC	110	3.85	0.04
GUGGENHEIM CAPITAL MARKETS LLC	1,715	67.78	0.04
INSTINET	28,701	602.04	0.02
INVESTMENT TECHNOLOGY GROUP INC.	8,063	66.33	0.01
ISI GROUP INC	6,302	130.92	0.02
J.P. MORGAN SECURITIES INC.	29,335	1,122.63	0.04
JEFFERIES + COMPANY INC	32,866	1,197.94	0.04
JMP SECURITIES	3,545	138.80	0.04
JOHNSON RICE & COMPANY LLC	8,404	252.12	0.03

# INVESTMENT SECTION

## Schedule of Fees and Commissions (continued)

Fiscal Year Ended September 30, 2016

<u>Investment Broker Name</u>	<u>Shares Traded</u>	<u>Total Value of Commissions</u>	<u>Average Commission Per Share</u>
JONESTRADING INSTITUTIONAL SERVICES LLC	22,398	604.04	0.03
KEEFE BRUYETTE + WOODS INC	15,275	598.00	0.04
KEYBANC CAPITAL MARKETS INC	38,497	1,420.74	0.04
KING, CL,& ASSOCIATES, INC	4,298	171.92	0.04
KNIGHT EQUITY MARKETS L.P.	40,325	1,252.08	0.03
LADENBURG THALMAN + CO	300	12.00	0.04
LEERINK PARTNERS LLC	1,860	74.40	0.04
LIQUIDNET INC	84,671	1,616.26	0.02
LUMINEX TRADING AND ANALYTICS LLC	365	0.92	0.00
MACQUARIE SECURITIES (USA) INC	5,777	210.47	0.04
MERRILL LYNCH PIERCE FENNER + SMITH INC	73,659	1,447.65	0.02
MERRILL LYNCH PROFESSIONAL CLEARING CORP	2,535	96.23	0.04
MIZUHO SECURITIES USA INC.	3,796	143.86	0.04
MKM PARTNERS LLC	1,000	35.00	0.04
MORGAN STANLEY CO INCORPORATED	23,677	623.53	0.03
NEEDHAM AND COMPANY LLC	14,971	561.89	0.04
O NEIL, WILLIAM AND CO. INC/BCC CLRG	500	17.50	0.04
OPPENHEIMER + CO. INC.	9,335	365.91	0.04
PIPER JAFFRAY	28,104	1,056.07	0.04
RAYMOND JAMES AND ASSOCIATES INC	48,715	1,787.68	0.04
RBC CAPITAL MARKETS	34,954	992.91	0.03
REDBURN	400	14.00	0.04
ROBERT W.BAIRD CO.INCORPORATE	32,753	1,165.47	0.04
ROTH CAPITAL PARTNERS LLC	3,550	106.50	0.03
SANDLER ONEILL AND PARTNERS L.P.	824	32.96	0.04
SANFORD CBERNSTEIN CO LLC	14,082	316.14	0.02
SCOTIA CAPITAL (USA) INC	8,600	301.00	0.04
SIDOTI + COMPANY LLC	5,883	233.20	0.04
SIMMONS +COMPANY INTERNATIONAL	800	28.00	0.04
STATE STREET GLOBAL MARKETS, LLC	34,171	784.88	0.02
STEPHENS,INC.	29,549	1,054.52	0.04
STIFEL NICOLAUS + CO INC	31,208	1,197.23	0.04
STRATEGAS SECURITIES LLC	7,800	273.00	0.04
STUART FRANKEL + CO INC	5,400	81.00	0.02
SUNGARD BROKERAGE & SECURITIES SVCS LLC	3,200	32.00	0.01
SUNTRUST CAPITAL MARKETS, INC.	39,404	1,576.16	0.04
TELSEY ADVISORY GROUP LLC	4,575	164.63	0.04
TOPEKA CAPITAL MARKETS INC	5,306	159.18	0.03
UBS SECURITIES LLC	25,297	777.24	0.03
WEDBUSH MORGAN SECURITIES INC	2,720	108.80	0.04
WEEDEN + CO.	106,876	1,739.98	0.02
WELLS FARGO SECURITIES, LLC	4,753	188.52	0.04
WILLIAM BLAIR & COMPANY L.L.C	145	5.80	0.04
WOLFE TRAHAN SECURITIES	1,200	42.00	0.04
TOTALS	<u>1,488,678</u>	<u>43,291.94</u>	

# ***INVESTMENT SECTION***

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**Michigan Legislative Retirement System**

**Comprehensive Annual Financial Report  
for the Fiscal Year Ended September 30, 2016**

**ACTUARIAL  
SECTION**



**Actuary's Certification  
Summary of Actuarial Assumptions and Methods  
Schedule of Member Data  
Schedule of Changes in Retirement Rolls  
Prioritized Solvency Test  
Summary of Plan Provisions**

# ACTUARIAL SECTION

## Actuary's Certification



Gabriel Roeder Smith & Company  
Consultants & Actuaries

One Towne Square  
Suite 800  
Southfield, MI 48076-3723

248.799.9000 phone  
248.799.9020 fax  
www.gabrielroeder.com

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December 30, 2016

The Board of Trustees  
Michigan Legislative Retirement System  
124 North Capitol Avenue – Suite S0927  
Lansing, Michigan 48933

Ladies and Gentlemen:

The basic financial objective of the Tier 1 Defined Benefit Plan of the Michigan Legislative Retirement System (MLRS) 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 purpose of the September 30, 2015 annual actuarial valuations was to determine the contribution requirements for the fiscal year ending September 30, 2016 and to measure the System's funding progress. The valuations should not be relied upon for any other purpose. The valuation process develops employer contributions that are sufficient 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, 2015.

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 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 of Trustees after considering the advice of the actuary and other professionals. 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. Assets are valued according to a method that fully recognizes expected investment return, and recognizes unanticipated market return over a five-year period. The assumptions and the methods comply with the disclosure requirements of GASB Statement Nos. 43 and 67.

The Michigan Legislative Retirement System is a closed plan consisting of only retired and inactive members (1 remaining active member). The primary assumptions which impact liabilities are the investment return and mortality assumptions. While there has not been a formal experience study performed in recent history, these assumptions are reviewed annually. All assumptions and methods comply with relevant actuarial standards of practice.

## Actuary's Certification (continued)

The Board of Trustees  
December 30, 2016  
Page 2

As of the valuation date, MLRS is 69.6% funded based upon the smoothed value of assets and 69.3% funded based upon market value.

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

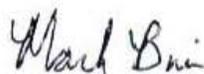
The current benefit structure is outlined in the actuarial section of the Comprehensive Annual Financial Report (CAFR). GRS did not prepare any of the schedules included in the CAFR, but we did provide the information used in the supporting schedules in the actuarial section and the Schedule of Funding Progress in the financial section, as well as the Employer Contributions – Computed and Actual Historical Comparison schedule in the financial section.

**Based upon the results of the September 30, 2015 valuation, the actuarial liabilities are less than fully funded on a funding value of assets basis and market value of assets basis. It is most important that this plan receive contributions at least equal to the actuarial rates. The actual public financed contribution for the year ended September 30, 2015 was zero, instead of the actuarially computed \$7,843,450. Lower-than-recommended actual contributions will increase future required contributions or possibly lead to a depletion in fund assets.**

The signing actuaries are independent of the plan sponsor.

Mark Buis, and Francois Pieterse are Members of the American Academy of Actuaries (MAAA), are independent of the plan sponsor and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



Mark Buis, FSA, EA, FCA, MAAA



Francois Pieterse, ASA, MAAA

MB:mrh

Gabriel Roeder Smith & Company

# ***ACTUARIAL SECTION***

## **Summary of Actuarial Assumptions and Methods**

1. The investment return rate used in making the valuations was 7% per year, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. Considering other financial assumptions, this 7% investment return rate translates to an assumed real rate of return of 3%. Adopted 1987.
2. The mortality table used in evaluating allowances to be paid was the RP-2000 Combined Healthy Mortality Table, adjusted for mortality improvements to 2020 using projection scale BB. Adopted 2015.
3. Sample probabilities of retirement with an age and service allowance are shown in Schedule 1. Adopted 1987.
4. Sample probabilities of withdrawal from service and disability, together with individual pay increase assumptions, are shown in Schedule 2. Adopted 1993, 1979, and 1987, respectively.
5. Total active member payroll is assumed to increase 4% per year. This represents the portion of the individual pay increase assumptions attributable to inflation.
6. An individual entry age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1987. Unfunded actuarial accrued liabilities, including actuarial gains and losses, are financed over a period of 10 years.
7. Effective for the September 30, 1993 valuation, valuation assets were equal to valuation assets (prior method) as of September 30, 1992, with subsequent differences between total investment income and projected investment income (actuarial assumption) being spread over a five (5) year period.
8. Member data and asset information 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 board of trustees after consulting with the actuary.
10. Beginning fiscal year 2011, the System board approved using the prior year actuarial report for the System current year comprehensive annual financial report.

# ACTUARIAL SECTION

## Summary of Actuarial Assumptions and Methods

(Continued)

### SCHEDULE 1

<u>Retirement Ages</u>	<u>Percent of Eligible Active Members Retiring Within Next Year</u>
50	10 %
52	10
55	10
58	10
61	10
64	10
67	10
70	100

### SCHEDULE 2

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

<u>Years of Service<sup>#</sup></u>	<u>Percent of Active Members Withdrawing Within Next Year</u>		<u>Sample Ages</u>	<u>Percent of Active Members Becoming Disabled Within Next Year</u>		<u>Percent Increase In Pay During Next Year</u>
	<u>House</u>	<u>Senate</u>		<u>Men</u>	<u>Women</u>	
0	6 %	6 %	25	0.08 %	0.10 %	4 %
1	6	6	35	0.08	0.10	4
2	6	6	40	0.20	0.36	4
3	6	6	45	0.27	0.41	4
4	6	6	50	0.49	0.57	4
5	4	4	55	0.89	0.77	4
6	100	4	60	1.41	1.02	4
7		4	65	1.66	1.23	4
8		100				

<sup>#</sup> Years after 1992, for persons who were members on December 31, 1992

# ACTUARIAL SECTION

## Actuarial Valuation Data

### Schedule of Active Member Pension Valuation Data

Valuation Date Sept. 30	Number	Reported Annual Payroll	Average Annual Pay	% Increase (Decrease)	Average Age	Average Service
2006	24	\$ 2,016,113	\$ 84,005	0.0%	56.1	13.6
2007	16	1,332,400	83,275	(0.9)	55.4	11.2
2008	16	1,332,400	83,275	0.0	56.4	12.2
2009	14	1,151,100	82,221	(1.3)	58.6	13.6
2010	14	1,151,100	83,739	1.9	59.6	14.6
2011	1	71,685	71,685	(14.4)	57.2	9.6
2012	1	71,685	71,685	0.0	52.3	9.8
2013	1	71,685	71,685	0.0	53.3	10.8
2014	1	71,685	71,685	0.0	54.3	11.8
2015	1	71,685	71,685	0.0	55.3	12.8

### Schedule of Active Member OPEB Valuation Data

Valuation Date Sept. 30	Number	Reported Annual Payroll	Average Annual Pay	% Increase (Decrease)	Average Age	Average Service
2012	48	\$ 3,515,187	\$ 73,233	%	52.6	7.7
2013	44	3,240,447	73,647	(7.8)	52.9	8.6
2014	34	2,497,497	73,456	(22.9)	53.4	10.2
2015	24	1,733,547	72,231	(30.6)	52.2	10.5

# ACTUARIAL SECTION

## Actuarial Valuation Data

(Continued)

### Schedule of Changes in the Pension Retirement Rolls

<u>Year Ended Sept. 30</u>	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>Rolls—End of Year</u>		<u>% Increase in Annual Allowances</u>	<u>Average Annual Allowances</u>
	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>		
2006	14	\$ 683,314	6	\$ 143,175	276	\$ 9,057,257	6.3%	\$ 32,816
2007	18	1,081,331	8	158,247	286	9,980,341	10.2	34,896
2008	7	625,054	9	182,679	284	10,422,716	4.4	36,700
2009	13	783,304	9	352,972	288	10,853,048	4.1	37,684
2010	8	629,090	8	286,285	288	11,195,853	3.2	38,874
2011	22	1,279,764	10	300,085	300	12,175,532	8.8	40,585
2012	8	752,346	15	428,828	293	12,499,050	2.7	42,659
2013	5	631,881	8	278,216	290	12,852,715	2.8	44,320
2014	4	594,824	10	364,336	284	13,083,203	1.8	46,068
2015	5	723,413	10	391,953	279	13,414,663	2.5	48,081

### Schedule of Changes in the OPEB Retirement Rolls

<u>Year Ended Sept. 30</u>	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>Rolls—End of Year</u>		<u>% Increase in Annual Allowances</u>	<u>Average Annual Allowances</u>
	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>		
2011					356	\$ 5,225,619		
2012	18	\$ 175,876	12	\$ 415,990	362	4,979,441	(4.6) %	\$ 13,755
2013	16	381,825	9	61,892	369	5,299,374	6.4	14,361
2014	8	71,424	15	149,945	362	5,220,853	(1.5)	14,422
2015	16	514,854	14	163,980	364	5,571,727	6.7	15,307

# ACTUARIAL SECTION

## Prioritized Solvency Test

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

A prioritized solvency test is another means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with: (1) liability for 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 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) is 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 byproduct of level percent of payroll funding methods.

The schedule below illustrates 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.

<b>Pension Benefits</b>									
<b>(\$ in thousands)</b>									
<b>Actuarial Accrued Liability (AAL)</b>									
<b>(1)                      (2)                      (3)</b>									
<b>Active Members</b>									
<b>Valuation Date</b>	<b>Active Member Contributions</b>	<b>Retirants and Beneficiaries</b>	<b>(Employer Financed Portion)</b>	<b>Valuation Assets</b>	<b>Portion of AAL Covered by Assets</b>				
<b>Sept. 30</b>					<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)<sup>1</sup></b>	
2006	\$ 2,560	\$ 124,040	\$ 31,807	\$ 159,347	100 %	100 %	103 %	101 %	
2007	1,833	137,179	24,301	167,750	100	100	118	103	
2008	1,660	145,110	22,626	169,986	100	100	103	100	
2009	1,483	149,132	20,826	165,810	100	100	73	97	
2010	1,280	151,675	19,739	158,952	100	100	30	92	
2011	659	171,022	10,165	149,940	100	87	0	82	
2012	587	171,388	8,491	136,916	100	80	0	76	
2013	500	172,877	7,532	134,932	100	78	0	75	
2014	446	185,067	7,249	135,767	100	73	0	70	
2015	284	186,103	6,255	134,049	100	72	0	70	

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

## Prioritized Solvency Test (continued)

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

Valuation Date Sept. 30	<u>Actuarial Accrued Liability (AAL)</u>			Valuation Assets	<u>Portion of AAL Covered by Assets</u>			
	(1)	(2)	(3)		(1)	(2)	(3)	(4) <sup>1</sup>
	Active Member Contributions	Retirants and Beneficiaries	Active Members (Employer Financed Portion)					
2008	\$ -	\$ 75,777	\$ 56,850	\$ 14,319	0 %	19 %	0 %	11 %
2009	-	80,198	56,672	14,588	0	18	0	11
2010	-	86,786	68,473	15,886	0	18	0	10
2011	-	92,385	48,311	15,179	0	16	0	11
2012	-	98,511	46,650	20,825	0	21	0	14
2013	-	103,824	49,842	22,806	0	22	0	15
2014	-	109,400	49,169	23,625	0	22	0	15
2015	-	123,962	50,602	21,840	0	18	0	13

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

# ACTUARIAL SECTION

## Analysis of System Experience

### Pension Benefits

#### Gains/Losses in Accrued Liabilities During Year Ended September 30, 2015 Resulting from Differences Between Assumed Experience & Actual Experience

<u>Type of Activity</u>	<u>Gain/(Loss)</u>
1. <b>Retirements (including Disability Retirement).</b> If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, a loss.	\$
2. <b>Withdrawals From Employment.</b> (including death-in-service) If more liabilities are released by withdrawals and deaths than assumed, there is a gain. If smaller releases, a loss.	
3. <b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	
4. <b>Investment Income.</b> If there is greater investment income than assumed, there is a gain. If less income, a loss.	2,655,100
5. <b>Death After Retirement.</b> If retirants live longer than assumed, there is a loss. Of not as long, a gain.	(994,993)
6. <b>Rehires.</b> Rehires will generally result in an actuarial loss.	
7. <b>Other.</b> Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.	<u>731,814</u>
8. <b>Composite Gain (or Loss) During Year</b>	<u><u>\$ 2,391,921</u></u>

## Summary Of Plan Provisions

### Membership

Legislators who first become legislators after March 30, 1997, will *not* be members of the Tier 1 defined benefit plan. This summary of benefits applies only to persons who first became legislators on or before March 30, 1997, and who did not elect to transfer to Tier 2, the defined contribution plan.

### Term Limits

For terms of office beginning on or after January 1, 1993, no person shall be elected to the House of Representatives (House) more than three (3) times and no person shall be elected to the Senate more than two (2) times. With the exception of persons who fill vacancies for partial terms and persons who serve in both the House and the Senate, the normal service limits are:

House - 6 years (three 2-year terms)  
Senate - 8 years (two 4-year terms)

### Regular Retirement

**Eligibility** - At least age 50 with age plus service equal to or exceeding 70; or at least age 55 with 5 or more years service if seated either: a) 3 times in the House or b) 2 times in the Senate or c) 1 time in the House and 1 time in the Senate.

**Annual Amount** - Persons who first became members on or before January 1, 1995: 20% of the highest salary earned for the first 5 years of service, plus 4% of highest salary for each of the next 11 years of service, plus 1% of highest salary for each additional year of service.

Persons who first became members after January 1, 1995: 3% of highest salary for each year of service.

### Deferred Retirement (Vested Benefit)

**Eligibility** - 5 or more years of service if seated either: a) 3 times in the House or b) 2 times in the Senate or c) 1 time in the House and 1 time in the Senate. Benefit begins at age 55 (as early as age 50 if age plus service equals or exceeds 70). Member may delay commencement of benefits to an age not greater than age 70-1/2.

**Annual Amount** - Computed as regular retirement benefit based on service and highest salary at termination. For persons who first became members on or before January 1, 1995, the benefit is increased 4% annually (compounded) between termination of membership and the earlier of a) benefit commencement or b) age 55. Benefits delayed beyond age 55 are actuarially equivalent to the age 55 benefit.

### Disability Retirement

**Eligibility** - Disability before becoming eligible to retire or during a benefit deferral period.

**Annual Amount** - Computed as a regular retirement benefit based on service and highest salary at time of disability.

# ***ACTUARIAL SECTION***

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

### **Death Benefit**

*Eligibility* - 5 or more years of service if seated either: a) 3 times in the House or b) 2 times in the Senate or c) 1 time in the House and 1 time in the Senate. Benefit is paid immediately.

*Annual Amount* - Surviving spouse receives 66 2/3% of the retirement allowance earned as of the date of death of the member. If there are eligible dependent children in his or her care, the surviving spouse receives 75% of the retirement allowance earned as of the date of death until the children are no longer dependent, at which time 66-2/3% then becomes payable. Special conditions apply if there is no surviving spouse, or if the eligible children are not under the care of the surviving spouse.

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

The annual retirement allowance payable to a retirant or survivor is increased by 4% per year, compounded annually (non-compounded for persons first becoming members after January 1, 1995), each January 1.

### **Life Insurance**

Life insurance coverage is provided from the Insurance Revolving Fund for active members, retirants, and deferred vested members. Coverage varies from \$2,500 to \$150,000 depending on premium payments, board policy, and statutory provisions in place at deferral and/or retirement.

### **Post-Retirement Health Insurance**

Hospital, medical, and dental insurance shall be provided from the Health Insurance Fund for retirants, deferred vested members who first became members on or before January 1, 1995, and their survivors, and to the spouses and eligible children of retirants and of deferred vested members who first became members on or before January 1, 1995.

In addition, the System provides health insurance coverage to eligible former legislators who belong to the State's Defined Contribution Plan (Tier 2).

### **Member Contributions**

For members who first became a member on or before January 1, 1995: 9% of annual salary to the Health Insurance Fund.

For members who first became a member after January 1, 1995: 7% of annual salary to the Health Insurance Fund.

**Michigan Legislative Retirement System**

**Comprehensive Annual Financial Report  
for the Fiscal Year Ended September 30, 2016**

**STATISTICAL  
SECTION**



**Schedule of Revenue by Source**  
**Schedule of Expenses by Type**  
**Schedule of Benefit Expenses by Type**  
**Actuarial Value of Assets compared to Actuarial Accrued Liability-Pension Plan**  
**Schedules of Changes in Net Position**  
**Schedules of Benefit and Refund Deductions from Net Position by Type**  
**Schedule of Retired Members by Type of Benefit**  
**Schedule of Funding Progress – Pension Plan**  
**Schedule of Average Benefit Payments**

# STATISTICAL SECTION

## Narrative Explanation to Statistical Section

The intention of this narrative description is to explain the System's financial and operating trends of the schedules in the statistical section. It is important that this section be written clearly and accurately to help improve the understandability and usefulness of the statistical information. The statistical section contains the following schedules:

*Schedule of Revenue By Source - Pension Plan and Other Postemployment Benefit Plan (OPEB)*

*Schedule of Expenses By Type - Pension Plan and OPEB*

*Schedule of Benefit Expenses By Type - Pension Plan and OPEB*

*Schedule of Changes in Net Position - Pension Plan*

*Schedule of Changes in Net Position - OPEB*

*Schedule of Benefit and Refund Deductions from Net Position by Type – Pension Plan*

*Schedule of Benefit and Refund Deductions from Net Position by Type – OPEB*

These schedules are a ten (10) year comparison of the Statement of Changes in Pension Plan and Postemployment Benefits Fiduciary Net Position found in the Financial Section of this report. This is to provide a longer time period for reference and show possible trends.

*Actuarial Value of Pension Plan Assets compared to Actuarial Accrued Pension Plan Liability*

This is to show the trend of the actuarial value of assets compared to the actuarial accrued liability for the pension plan.

*Schedule of Retired Members by Type of Benefit – Pension Plan*

*Schedule of Retired Members by Type of Benefit – OPEB*

This schedule is to show the average amount of benefits. It is broken out by amount and type to show possible trends.

*Schedule of Funding Progress – Pension Plan*

This schedule is to show the System funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. This schedule was in the financial section, but was replaced by the Net Pension Liability for the pension plan.

*Schedule of Average Benefit Payments – Pension Plan*

*Schedule of Average Benefit Payments – OPEB*

This schedule is to show the average amount of new benefits by years of service.

# STATISTICAL SECTION

## Schedule of Revenue By Source Pension Plan and Other Postemployment Benefit Plan

Fiscal Year Ended	Member Contributions	Employer Contributions	Other Governmental Contributions	Court Fees	Investment & Other Income(Loss)	Total
2007	\$164,129	\$3,424,100	\$257,079	\$1,237,607	\$30,246,532	\$35,329,447
2008	145,038	3,424,100	153,982	1,219,327	(31,512,684)	\$ (26,570,237)
2009	156,385	3,424,100	160,758	1,148,198	6,414,695	\$11,304,136
2010	164,411	3,424,100	150,113	1,090,565	16,840,841	\$21,670,030
2011	114,663	3,287,900	880,159	999,609	(1,160,783)	\$4,121,548
2012	99,322	6,887,400	255,590	952,922	29,197,705	\$37,392,939
2013	113,784	3,300,200	153,256	940,187	26,568,449	\$31,075,876
2014	123,791	3,451,900	167,078	871,481	17,256,085	\$21,870,335
2015	126,290	3,607,200	180,690	866,174	(6,908,086)	\$ (2,127,732)
2016	135,739	3,733,500	207,065	804,133	13,785,524	\$18,665,961

\*\* Includes transfers to Defined Contribution Plan

## Schedule of Expenses By Type Pension Plan and Other Postemployment Benefit Plan

Fiscal Year Ended	Benefits*	Refunds and Transfers	Administrative Expenses	Total
2007	\$14,288,543	\$193,191	\$342,251	\$14,823,985
2008	15,136,792	9,095	380,774	\$15,526,661
2009	16,405,441	108,461	370,185	\$16,884,087
2010	16,747,744	305,475	391,145	\$17,444,364
2011	17,819,328	11,496	510,858	\$18,341,682
2012	18,315,849	15,672	458,702	\$18,790,223
2013	18,704,799	11,700	439,791	\$19,156,290
2014	19,643,402	20,911	493,883	\$20,158,196
2015	19,905,147	724,352	427,768	\$21,057,267
2016	20,015,578	72,715	471,670	\$20,559,964

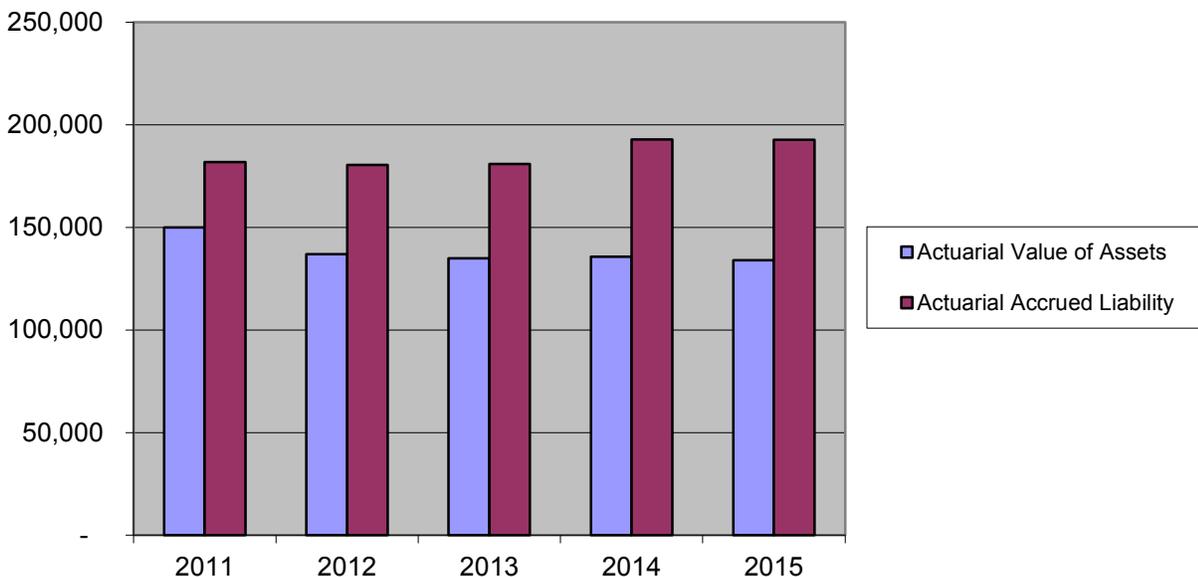
\* Includes health benefits

# STATISTICAL SECTION

## Schedule of Benefit Expenses by Type Pension Plan and Other Postemployment Benefit Plan

Fiscal Year Ended	Regular & Survivor				Total
	Pension Benefits	Death Benefits	Dental Benefits	Health Benefits	
2007	\$9,681,902	\$115,800	\$341,899	\$4,148,942	\$14,288,543
2008	10,264,373	154,398	360,697	4,357,324	\$15,136,792
2009	10,793,318	457,500	394,566	4,760,057	\$16,405,441
2010	11,121,971	333,172	426,560	4,866,041	\$16,747,744
2011	11,974,289	140,000	448,263	5,256,776	\$17,819,328
2012	12,469,893	325,796	417,299	5,102,861	\$18,315,849
2013	12,757,228	134,000	417,115	5,396,456	\$18,704,799
2014	13,147,695	381,500	417,313	5,696,894	\$19,643,402
2015	13,394,276	376,678	409,246	5,724,946	\$19,905,147
2016	13,451,597	395,000	404,929	5,764,052	\$20,015,578

## Actuarial Value of Pension Plan Assets compared to Actuarial Accrued Pension Plan Liability Fiscal Years Ended September 30 (In Thousands)



# STATISTICAL SECTION

## Schedule of Changes in Fiduciary Net Position - Pension Plan (Ten Years)

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Additions</b>										
Member contributions	\$ 18,288	\$ 13,286	\$ 11,581	\$ 11,044	\$ 10,343	\$ 7,635	\$ 6,527	\$ 5,662	\$ 3,226	\$ 3,648
Employer contributions										
Other Gov't contributions										
Court fees	394,957		269,944							
Net Investment income	27,445,951	(29,281,389)	5,564,681	15,031,593	(1,001,060)	26,171,659	23,207,036	14,868,119	(6,545,332)	11,324,783
Other income					1					
<b>Total additions</b>	<b>27,859,196</b>	<b>(29,268,103)</b>	<b>5,846,206</b>	<b>15,042,637</b>	<b>(990,716)</b>	<b>26,179,294</b>	<b>23,213,563</b>	<b>14,873,781</b>	<b>(6,542,106)</b>	<b>11,328,431</b>
<b>Deductions</b>										
Benefit payments	9,797,702	10,418,771	11,250,818	11,455,143	12,114,289	12,795,689	12,891,228	13,529,195	13,770,955	13,846,597
Refunds	2,546	9,095	14,638	17,506	11,496	15,672	11,700	20,911	13,285	72,715
Qualified rollovers	190,645		93,823	287,969					711,067	
Administrative expenses	314,785	347,102	335,644	354,649	396,358	411,128	372,703	430,200	362,431	405,381
<b>Total deductions</b>	<b>10,305,678</b>	<b>10,774,968</b>	<b>11,694,923</b>	<b>12,115,267</b>	<b>12,522,143</b>	<b>13,222,489</b>	<b>13,275,631</b>	<b>13,980,306</b>	<b>14,857,738</b>	<b>14,324,693</b>
<b>Changes in Net position</b>	<b>\$ 17,553,518</b>	<b>\$ (40,043,071)</b>	<b>\$ (5,848,717)</b>	<b>\$ 2,927,370</b>	<b>\$ (13,512,859)</b>	<b>\$ 12,956,805</b>	<b>\$ 9,937,932</b>	<b>\$ 893,475</b>	<b>\$ (21,399,844)</b>	<b>\$ (2,996,262)</b>

## Schedule of Changes in Fiduciary Net Position - Other Postemployment Benefit Plan (Ten Years)

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Additions</b>										
Member contributions	\$ 145,840	\$ 131,752	\$ 144,804	\$ 153,367	\$ 104,320	\$ 91,687	\$ 107,257	\$ 118,129	\$ 123,064	\$ 132,090
Employer contributions	3,424,100	3,424,100	3,424,100	3,424,100	3,287,900	6,887,400	3,300,200	3,451,900	3,607,200	3,733,500
Other Gov't contributions	257,079	153,982	160,758	150,113	880,159	255,590	153,256	167,078	180,690	207,065
Court fees	842,651	1,219,327	878,254	1,090,565	999,609	952,922	940,187	871,481	866,174	804,133
Net Investment income	2,192,699	(2,583,379)	541,287	1,556,845	(159,724)	3,026,046	3,361,413	2,187,276	(996,079)	1,834,640
Other income	607,882	352,084	308,727	252,403				200,690	633,325	626,101
<b>Total additions</b>	<b>7,470,251</b>	<b>2,697,866</b>	<b>5,457,930</b>	<b>6,627,393</b>	<b>5,112,264</b>	<b>11,213,645</b>	<b>7,862,313</b>	<b>6,996,554</b>	<b>4,414,374</b>	<b>7,337,530</b>
<b>Deductions</b>										
Benefit payments	4,490,841	4,718,021	5,154,623	5,292,601	5,705,039	5,520,160	5,813,571	6,114,207	6,134,192	6,168,981
Refunds										
Qualified rollovers										
Administrative expenses	27,466	33,672	34,540	36,496	114,500	47,574	67,088	63,683	65,337	66,289
<b>Total deductions</b>	<b>4,518,307</b>	<b>4,751,693</b>	<b>5,189,163</b>	<b>5,329,097</b>	<b>5,819,539</b>	<b>5,567,734</b>	<b>5,880,659</b>	<b>6,177,890</b>	<b>6,199,529</b>	<b>6,235,271</b>
<b>Changes in Net position</b>	<b>\$ 2,951,944</b>	<b>\$ (2,053,827)</b>	<b>\$ 268,767</b>	<b>\$ 1,298,296</b>	<b>\$ (707,275)</b>	<b>\$ 5,645,911</b>	<b>\$ 1,981,654</b>	<b>\$ 818,664</b>	<b>\$ (1,785,155)</b>	<b>\$ 1,102,259</b>

# STATISTICAL SECTION

## Schedule of Benefit and Refund Deductions from Net Position by Type Pension Plan (Ten Years)

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Type of Benefit</b>										
Age and service benefits:										
Retirees	\$ 8,185,845	\$ 8,745,818	\$ 9,219,700	\$ 9,403,769	\$10,178,018	\$10,669,077	\$10,850,420	\$11,137,006	\$11,398,185	\$11,398,950
Survivors	1,496,057	1,518,555	1,573,618	1,718,202	1,796,271	1,800,816	1,906,808	2,010,689	1,996,092	2,052,647
Death in service benefits	115,800	154,398	457,500	333,172	140,000	325,796	134,000	381,500	376,678	395,000
Total benefits	<u>\$ 9,797,702</u>	<u>\$10,418,771</u>	<u>\$11,250,818</u>	<u>\$11,455,143</u>	<u>\$12,114,289</u>	<u>\$12,795,689</u>	<u>\$12,891,228</u>	<u>\$13,529,195</u>	<u>\$13,770,955</u>	<u>\$13,846,597</u>
<b>Type of refund</b>										
Death	\$ 2,214	\$ 9,095	\$ 14,638	\$ 17,506	\$ 11,098	\$ 15,672	\$ 11,700	\$ 20,911	\$ 13,284	\$ 61,780
Separation										
Other	332		93,823	287,969	398				711,067	10,935
Total Refunds	<u>\$ 2,546</u>	<u>\$ 9,095</u>	<u>\$ 108,461</u>	<u>\$ 305,475</u>	<u>\$ 11,496</u>	<u>\$ 15,672</u>	<u>\$ 11,700</u>	<u>\$ 20,911</u>	<u>\$ 724,352</u>	<u>\$ 72,715</u>

## Schedule of Benefit and Refund Deductions from Net Position by Type Other Postemployment Benefit Plan (Ten Years)

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Type of Benefit</b>										
Healthcare benefits:										
Health benefits	\$ 4,148,942	\$ 4,387,409	\$ 4,760,057	\$ 4,866,041	\$ 5,256,776	\$ 5,102,861	\$ 5,396,456	\$ 5,696,894	\$ 5,724,946	\$ 5,764,052
Dental benefits	341,899	330,612	394,566	426,560	448,263	417,299	417,115	417,313	409,246	404,929
Total benefits	<u>\$ 4,490,841</u>	<u>\$ 4,718,021</u>	<u>\$ 5,154,623</u>	<u>\$ 5,292,601</u>	<u>\$ 5,705,039</u>	<u>\$ 5,520,160</u>	<u>\$ 5,813,571</u>	<u>\$ 6,114,207</u>	<u>\$ 6,134,192</u>	<u>\$ 6,168,981</u>

# STATISTICAL SECTION

## Schedule of Retired Members by Type of Benefit - Pension Plan As of September 30, 2016

Amount of Monthly Benefit	Number of Retired Members	Type of Retirement*				
		1	2	3	4	5
Deferred	11	6	5	0	0	0
\$ 1 - \$ 500	0	0	0	0	0	0
501 - 1,000	8	5	0	3	0	0
1,001 - 1,500	17	6	3	7	1	0
1,501 - 2,000	14	3	6	5	0	0
2,001 - 2,500	34	31	0	3	0	0
2,501 - 3,000	33	26	0	7	0	0
3,001 - 3,500	22	11	1	10	0	0
3,501 - 4,000	19	14	3	2	0	0
4,001 - 4,500	16	9	0	7	0	0
4,501 - 5,000	17	14	0	3	0	0
Over 5,000	91	83	1	7	0	0
Total	282	208	19	54	1	0

**Notes:**

\*Type of Retirement

- 1 - Regular retirement - first became members on or before 1/1/95
- 2 - Regular retirement - first became members after 1/1/95
- 3 - Survivor payment - survivor of type 1 regular retiree
- 4 - Survivor payment - survivor of type 2 regular retiree
- 5 - Disability Retirement

# STATISTICAL SECTION

## Schedule of Retired Members by Other Postemployment Benefits As of September 30, 2016

Amount of Monthly Pension Benefit	Number of Eligible Members	Type of Other Postemployment Benefits		
		Receiving Health*	Receiving Dental	Receiving Health and/or Dental
Defined Contribution	121	95	97	98
Deferred	5	5	5	5
\$ 1 - \$ 500	0	0	0	0
501 - 1,000	3	3	3	3
1,001 - 1,500	15	15	15	15
1,501 - 2,000	14	14	14	14
2,001 - 2,500	34	34	34	34
2,501 - 3,000	31	30	31	31
3,001 - 3,500	22	22	22	22
3,501 - 4,000	19	19	19	19
4,001 - 4,500	16	16	16	16
4,501 - 5,000	17	17	17	17
Over 5,000	91	88	89	89
Total	388	358	362	363

\*Health includes: health, prescription, hearing and vision insurance

# STATISTICAL SECTION

## Schedule of Funding Progress – Pension Plan (in thousands)

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Overfunded) Accrued Liability (UAAL) (b-a)	Funded Ratio AAL (a/b)	Covered Payroll(1) (c)	UAAL as a % of Covered Payroll(2) ((b-a)/c)
Sept 30	(a)	(b)	(b-a)	(a/b)	(c)	((b-a)/c)
2006	\$159,347	\$158,407	\$(940)	101%	\$ 2,016	N/A
2007	167,750	163,313	(4,437)	103	1,332	N/A
2008	169,986	169,396	(590)	100	1,332	N/A
2009	165,810	171,441	5,631	97	1,151	N/A
2010	158,952	172,694	13,741	92	1,173	N/A
2011	149,940	181,847	31,907	82	143	N/A
2012	136,916	180,466	43,550	76	72	N/A
2013	134,932	180,909	45,978	75	72	N/A
2014	135,767	192,762	56,995	70	72	N/A
2015	134,049	192,642	58,593	70	72	N/A

(1) October based payrolls

(2) Percentage of covered payroll is not applicable (N/A) as the System is closed.

# STATISTICAL SECTION

## Schedule of Average Benefit Payments - Pension Plan (Ten Years)

Retirement Effective Dates	Years of Credited Services						
	<u>0-5</u>	<u>5-10</u>	<u>10-15</u>	<u>15-20</u>	<u>20-25</u>	<u>25-30</u>	<u>30+</u>
Period 10/1/06 to 9/30/07							
Average monthly benefit		\$1,556	\$3,488	\$3,756	\$6,308	\$5,791	
Average final average salary		\$56,586	\$57,323	\$62,550	\$95,150	\$89,317	
Number of retired members		4	4	2	2	3	
Period 10/1/07 to 9/30/08							
Average monthly benefit		\$1,560	\$3,487	\$5,610			
Average final average salary		\$56,981	\$60,188	\$101,650			
Number of retired members		1	3	1			
Period 10/1/08 to 9/30/09							
Average monthly benefit		\$2,001	\$3,566				
Average final average salary		\$60,842	\$62,550				
Number of retired members		5	2				
Period 10/1/09 to 9/30/10							
Average monthly benefit		\$1,950		\$4,767			
Average final average salary		\$52,551		\$47,723			
Number of retired members		4		1			
Period 10/1/10 to 9/30/11							
Average monthly benefit		\$1,857	\$3,511	\$5,067			
Average final average salary		\$68,654	\$80,425	\$75,210			
Number of retired members		5	9	5			
Period 10/1/11 to 9/30/12							
Average monthly benefit		\$1,746	\$4,020				
Average final average salary		\$59,431	\$79,650				
Number of retired members		3	1				
Period 10/1/12 to 9/30/13							
Average monthly benefit		\$1,916	\$5,245				
Average final average salary		\$53,192	\$77,400				
Number of retired members		1	1				
Period 10/1/13 to 9/30/14							
Average monthly benefit		\$2,844					
Average final average salary		\$70,421					
Number of retired members		2					
Period 10/1/14 to 9/30/15							
Average monthly benefit		\$2,133		\$5,871			
Average final average salary		\$50,629		\$53,192			
Number of retired members		1		1			
Period 10/1/15 to 9/30/16							
Average monthly benefit		\$1,699					
Average final average salary		\$66,421					
Number of retired members		2					

# STATISTICAL SECTION

## Schedule of Average Benefit Payments - Other Postemployment Benefit Plan (Ten Years)

Retirement Effective Dates	Years of Credited Services						
	<u>0-5</u>	<u>5-10</u>	<u>10-15</u>	<u>15-20</u>	<u>20-25</u>	<u>25-30</u>	<u>30+</u>
Period 10/1/06 to 9/30/07							
Average monthly benefit		\$104	\$4,256	\$5,610	\$6,308	\$5,791	
Average final average salary		\$80,233	\$85,650	\$101,650	\$92,650	\$89,317	
Number of retired members		12	2	1	2	3	
Period 10/1/07 to 9/30/08							
Average monthly benefit		\$0					
Average final average salary		\$102,758					
Number of retired members		1					
Period 10/1/08 to 9/30/09							
Average monthly benefit		\$91	\$1,656				
Average final average salary		\$79,650	\$90,650				
Number of retired members		14	2				
Period 10/1/09 to 9/30/10							
Average monthly benefit		\$0					
Average final average salary		\$83,050					
Number of retired members		5					
Period 10/1/10 to 9/30/11							
Average monthly benefit		\$138	\$2,522	\$4,385	\$5,415		
Average final average salary		\$79,956	\$82,050	\$79,650	\$91,650		
Number of retired members		18	15	2	1		
Period 10/1/11 to 9/30/12							
Average monthly benefit		\$249	\$0				
Average final average salary		\$79,650	\$79,650				
Number of retired members		5	4				
Period 10/1/12 to 9/30/13							
Average monthly benefit		\$0	\$0				
Average final average salary		\$81,364	\$79,650				
Number of retired members		7	1				
Period 10/1/13 to 9/30/14							
Average monthly benefit		\$0					
Average final average salary		\$79,650					
Number of retired members		3					
Period 10/1/14 to 9/30/15							
Average monthly benefit		\$0	\$0				
Average final average salary		\$81,028	\$82,650				
Number of retired members		4	4				
Period 10/1/15 to 9/30/16							
Average monthly benefit		\$311					
Average final average salary		\$79,650					
Number of retired members		4					