



Michigan Legislative Retirement System

**Comprehensive Annual
Financial Report
for the Fiscal Year
September 30, 2017**

A Pension Fund of the State of Michigan

Printed by the pension fund
at no cost to the taxpayer

Michigan Legislative Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 2017**



M L R S

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, 2017**

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, 2016

Christopher P. Morill

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



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

December 29, 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 2017.

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 12.8%. 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, 2016, the actuarial value of the assets and actuarial accrued liability of the fund were \$133.0 million and \$190.2 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, 2016, the actuarial value of the assets and actuarial accrued liability of the fund were \$22.9 million and \$184.2 million respectively, resulting in a funded ratio of 12%. OPEB valuations were required beginning fiscal year 2007 and do not require retroactive application. Therefore, nine (9) valuation years of historical funding levels for the System are presented in the statistical 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, 2016. 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, 2016. This was the 3rd 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

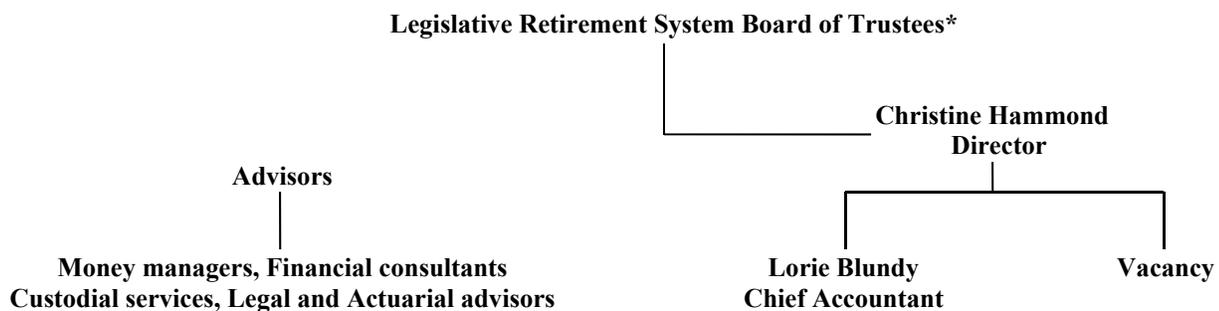
The Honorable George McManus
Retiree Member

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., 31st Floor
Dallas, TX 75201

Cramer Rosenthal McGlynn, LLC
520 Madison Avenue, 20th 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

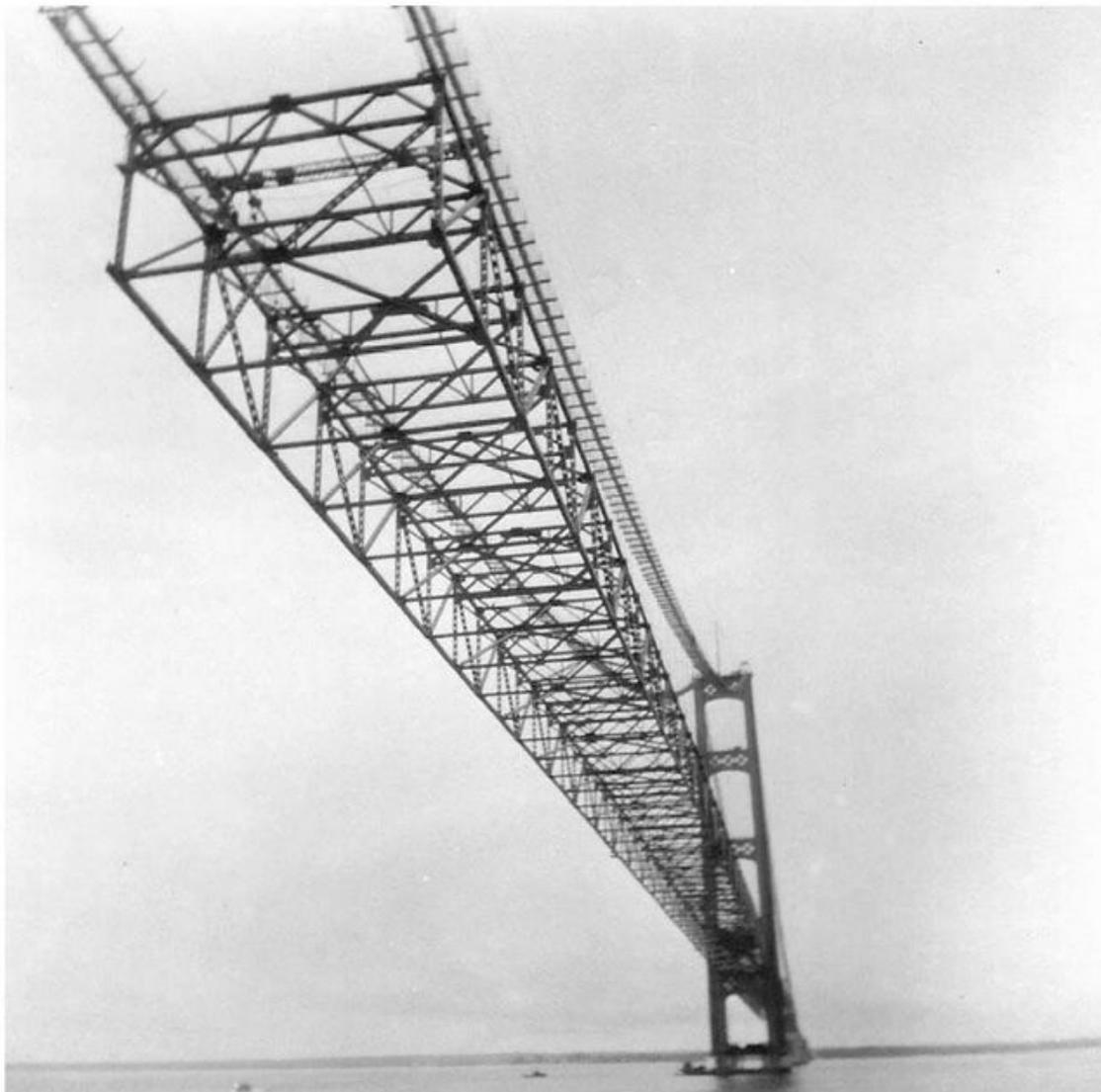
Custodian

Nick Khouri
State Treasurer
State of Michigan

Legal Advisor

Bill Schuette
Attorney General
State of Michigan

INTRODUCTORY SECTION



• JUL 57

Mackinac Bridge Deck Construction, 1957 (Photo credit: Mackinac Bridge Authority)

The Mackinac Bridge and the Michigan Legislative Retirement System (LRS) each reached its 60th anniversary in 2017; the bridge opened to vehicular traffic on November 1, 1957, and the LRS was created by a state statute (PA 261 of 1957) that was signed into law on September 27, 1957, and it held its first formative Board of Trustees meeting on October 18, 1957. The bridge and the LRS were launched with very careful planning and solid foundations; for the past 60 years, they have experienced capable daily management; they have upgraded and modernized their essential parts and processes to ensure they continue to meet their responsibilities and provide high-quality service; they have weathered some very fierce storms; and their long-term futures, with attentive and prudent guidance and direction, will hopefully be as successful as their past 60 years.

COVER PHOTO: Beneath the Mackinac Bridge, 2017 (Photo credit: Lorie Blundy, MLRS Chief Accountant)

Michigan Legislative Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 2017**

**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 • 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

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, 2017 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, 2017 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 9 to the financial statements, the System adopted Governmental Accounting Standards Board (GASB) Statements No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and No. 82, *Pension Issues - an amendment of GASB Statements No. 67, No. 68, and No. 73*, for the fiscal year ended September 30, 2017. 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 changes in net pension liability, schedule of changes in net OPEB liability, schedules of contributions, schedules 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 GASB who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

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

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

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

Other Reporting Required by Government Auditing Standards

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

Sincerely,

Doug Ringler
Auditor General
December 29, 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, 2017 and 2016. This should be read in conjunction with the financial statements and required supplemental information (RSI), which provides information for September 30, 2017.

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 38), Schedule of Net OPEB Liability (page 39) and Schedules of Contributions (page 40) 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, 2017, **increased** by \$2.7 million or 1.8%, due to an increase in the market value of the System's investments.

Plan Fiduciary Net Position

As of September 30

(\$ in thousands)

	2017	2016	Increase (Decrease)
Assets:			
Equity in common cash	\$ 2,691	\$ 1,161	131.8 %
Receivables	453	937	(51.6)
Investments	153,583	152,096	1.0
Total assets	156,727	154,193	1.6
Liabilities:			
Warrants outstanding	1	3	(50.3)
Accounts payable	482	688	(30.0)
Total liabilities	483	691	(30.1)
Total net position	\$ 156,244	\$ 153,502	1.8 %

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 2017 totaled \$23.8 million. Total Additions to Net Position **increased** in fiscal year 2017 by 27.7% 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 2017 were \$21.1 million, an **increase** of 2.6% over 2016 expenses, primarily due to increased pension and healthcare costs.

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

	2017	2016	Increase (Decrease)
Additions			
Member contributions	\$ 10	\$ 136	(92.4)%
Employer contributions	4,776	4,745	0.7
Net Investment income/(loss)	18,595	13,159	41.3
Miscellaneous income	447	626	(28.7)
Total additions	23,828	18,666	27.7
Deductions			
Pension benefits	13,640	13,452	1.4
Health care benefits	6,343	6,169	2.8
Death benefits/life ins.	607	395	53.7
Refunds/qual. rollover	36	73	(51.0)
Administrative exp.	461	472	(2.3)
Total deductions	21,086	20,560	2.6
Net increase (decrease)	2,742	(1,894)	(244.8)
Net position - Beginning of year	153,502	155,396	(1.2)
Net position - End of year	\$ 156,244	\$ 153,502	1.8 %

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.

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.

One of the most significant economic events during the third quarter was the U.S. Federal Reserve's (Fed) Open Market Committee (FOMC) meeting in July. In addition to reviewing when (and if) interest rates would change, the Fed began discussing how they expect to shrink their \$4.5 trillion balance sheet. Even in the face of uncertainty on what they would do, U.S. equities posted modestly positive returns during the period. Equities outside the U.S. continued to do well, helped along by a falling dollar. Because of (or in spite of) the Fed, the quarter was quiet for bonds.

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 46).

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.



Opening of the Mackinac Bridge, November 1, 1957 (Photo Credit: Michigan Department of Transportation)

Pictured (left to right) State Highway Commissioner John Mackie, bridge designer David Steinman, Governor G. Mennen “Soapy” Williams (waving), Prentiss Brown, former Governor Murray Van Wagoner, Sault Ste. Marie businessman George Osborn, William Cochran, and Lawrence Rubin.

Governor Williams officially opened the Mackinac Bridge on November 1, 1957; he also officially “opened” the Legislative Retirement System by signing into law its enabling statute, Public Act 261 of 1957, on September 27, 1957. The first LRS Board of Trustees meeting was held almost two (2) weeks later. The surviving spouse (age 97 in 2017) of a single member of the original LRS Board of Trustees remains an LRS pensioner in 2017, and a single current LRS retiree (age 96 in 2017) was a member of the House of Representatives in 1957 when the LRS was created.

FINANCIAL SECTION

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

As of September 30, 2017

	Pension Plan	OPEB Plan	Total
ASSETS			
Equity in common cash	\$ 2,273,306	\$ 418,075	\$ 2,691,381
Receivables			
Due from other funds	74,802		74,802
Due from federal agencies		203,098	203,098
Interest and dividends	41,153		41,153
Sale of investments	134,065		134,065
Total receivables:	250,020	203,098	453,118
Investments			
Equities	46,538,904	8,581,979	55,120,883
Alternative investments	14,629,428	2,697,731	17,327,159
Mutual funds	68,502,639	12,632,189	81,134,828
Total investments:	129,670,970	23,911,900	153,582,870
Total assets:	132,194,296	24,533,072	156,727,368
LIABILITIES			
Warrants outstanding	1,366		1,366
Accounts payable and other liabilities	449,615		449,615
Amount due to other funds	5,708		5,708
Unearned revenue		26,193	26,193
Total liabilities:	456,689	26,193	482,883
Net position restricted for pension benefits and OPEB	\$ 131,737,607	\$ 24,506,879	\$ 156,244,486

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, 2017

	Pension Plan	OPEB Plan	Total
ADDITIONS			
Member contributions:			
Other member contributions	\$ 3,895	\$ 6,452	\$ 10,346
Employer contributions		3,808,200	3,808,200
Court fees		763,436	763,436
Other governmental contributions		204,042	204,042
Total contributions:	3,895	4,782,129	4,786,024
Investment Income (Loss):			
Net increase (decrease) in fair value of investments	13,547,444	2,380,542	15,927,986
Interest, dividends and other	2,724,039	450,161	3,174,200
Total investment income (loss)	16,271,483	2,830,703	19,102,186
Less investment expenses	(430,718)	(76,010)	(506,729)
Net investment income (loss)	15,840,765	2,754,692	18,595,457
Miscellaneous income	6,649	439,939	446,588
Total additions:	15,851,309	7,976,761	23,828,070
DEDUCTIONS			
Benefits & refunds paid to plan members and beneficiaries:			
Retirement benefits	13,639,606		13,639,606
Health benefits		5,952,317	5,952,317
Dental benefits		390,630	390,630
Death benefits	607,000		607,000
Refund of contribution & interest	35,618		35,618
Administrative expenses	391,937	68,871	460,807
Total deductions:	14,674,160	6,411,818	21,085,978
Net increase (decrease) in net position	1,177,149	1,564,943	2,742,092
Net position restricted for pension benefits and OPEB:			
Beginning of year	130,560,458	22,941,936	153,502,394
End of year	\$ 131,737,607	\$ 24,506,879	\$ 156,244,486

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

FINANCIAL SECTION

Notes to Basic Financial Statements

NOTE 1 - PLAN DESCRIPTION

ORGANIZATION

The Michigan Legislative Retirement System (MLRS or System) is a single employer, public employee, defined benefit retirement pension 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 other postemployment benefit (OPEB) plan provides health care to eligible vested members, the option of receiving health, prescription, dental and vision coverage under the Michigan Legislative Retirement Act. Public Act 200 of 2011 amended the System's enabling statute and closed the OPEB Plan. The System's financial statements are included as a pension (and other employee benefit) 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, 2017, the System's membership consisted of the following:

Inactive plan members or their beneficiaries currently receiving benefits	2017
Regular benefits.....	209
Survivor benefits.....	60
Disability benefits.....	0
Total.....	269 *
Inactive plan members entitled to but not yet receiving benefits	<u>8</u>
Active plan members:	
Vested.....	1
Non-vested.....	0
Total.....	1
Total Plan Members	<u>278</u>

*Includes 10 domestic relations orders (DRO) alternate payees for 2017

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

MEMBERSHIP (continued)

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

Health/Dental/Vision Plan	2017
Active participants.....	23
Deferred participants.....	65
Participants currently eligible for health benefits.....	384 **
Participants receiving health benefits.....	360 **

**Includes 101 defined contribution (DC) participants at September 30, 2017 who are receiving health care insurance through System in accordance with state statute. At September 30, 2017, the number of DC participants who were eligible for health care insurance but declined to receive the benefits were 22.

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 Basic 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 Basic 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 38.

GASB Statement No. 74, which was adopted during the fiscal year ended September 30, 2017, addresses accounting and financial reporting requirements for other postemployment benefit (OPEB) plans. The requirements for GASB Statement No. 74, are much like 67 addressed for pension plans, which 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 OPEB liability. It also includes comprehensive footnote disclosure regarding the OPEB liability, the sensitivity of the net OPEB liability to the discount rate, and increased investment activity disclosures. The implementation of GASB Statement No. 74 did not significantly impact the accounting for accounts receivables and investment balances. The total OPEB liability, determined in accordance with GASB Statement No. 74, is presented in Note 5 on page 28 and in the Required Supplementary Information on page 39.

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, 2017, 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, 2017, the balance in this account was \$30.3 million.

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

Contributions and Reserves (continued)

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, 2017, the balance in this account was \$73.8 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, 2017, the balance in this account was \$27.4 million.

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, 2017, the balance in this account was \$24.5 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 \$1.1 million from the reserve to pay health insurance costs for fiscal year ending September 30, 2017.

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.

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

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 \$2.7 million on September 30, 2017, 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 \$16,655 for the year ended September 30, 2017.

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 \$180,001 as of September 30, 2017.

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.

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

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.

Pension plan State contributions are determined based on an actuarially determined contributions. Actual employer contributions for pension plan benefits was \$0 for fiscal year 2017.

Public Act 64 of 2012 began prefunding State contributions for prefunding costs for other postemployment benefits (OPEB) in fiscal year 2012. OPEB plan State contributions are determined based on an actuarially determined contributions. Actual employer contributions for OPEB was \$4.6 million for fiscal year 2017.

Schedules showing actuarially determined State contributions are presented in the Required Supplementary Information, in the financial section of this report. Also included in the Required Supplementary Information, are the actuarial assumptions used to determine the contribution rates.

NOTE 4 – NET PENSION LIABILITY

Measurement of the Net Pension Liability

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

Net Pension Liability	
Total Pension Liability	\$ 246,565,436
Plan Fiduciary Net Position	131,737,607
Net Pension Liability	<u>\$ 114,827,829</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	53.43%
Net Pension Liability as a percentage of Covered Payroll	160,183.90%
Total Covered Payroll	\$ 71,685

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

Long-Term Expected Return on Pension 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, 2017, 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 %	5.0 %
Small Cap Equity	13.0	5.5
International Developed Equity	11.0	7.0
International Small Cap Equity	5.0	7.0
Emerging Markets	9.0	9.5
Fixed Income	18.0	2.2
Hedge Fund	5.0	5.2
Public Natural Resources	10.0	7.0
Cash	2.0	1.5
Total	100.0 %	

*Real rate of return is based on investment manager inflation assumption of 2.20%.

Pension Plan Rate of Return

For the year ended September 30, 2017, the annual money-weighted rate of return on pension plan investments, net pension plan investment expense, was 12.44%. The money weighted rate of return expresses investment performances, net of investment expense, adjusted for the changing amounts actually invested.

Pension Plan Discount Rate

The single discount rate used to measure the total pension liability increased to 4.41%, compared to the prior year's 3.95%. 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 3.50% (based on the weekly rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"). 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 2029. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2029, and the municipal bond rate was applied to all benefit payments after that date.

FINANCIAL SECTION

Notes to Basic 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 4.41%, 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	Current Single Discount Rate Assumption	1% Increase
	3.41%	4.41%	5.41%
Net Pension Liability/(Asset)	<u>\$145,809,616</u>	<u>\$114,827,829</u>	<u>\$89,247,801</u>

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, 2017, is based on the results of an actuarial valuation performed as of September 30, 2016 and rolled forward using generally accepted actuarial procedures.

NOTE 5 – NET OTHER POSTEMPLOYMENT BENEFIT LIABILITY

Measurement of the Net OPEB Liability

The net OPEB liability is to be measured as the total OPEB liability, less the amount of the OPEB 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 the actuarial valuations performed to determine the employer's contribution requirement). The net OPEB liability should be measured as of the OPEB plan's most recent fiscal year end.

Net OPEB Liability	
Total OPEB Liability	\$ 192,843,121
Plan Fiduciary Net Position	24,506,879
Net OPEB Liability	<u>\$ 168,336,242</u>
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	12.71%
Net OPEB Liability as a percentage of Covered Payroll	10,129.38%
Total Covered Employee Payroll	\$ 1,661,862

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

Long-Term Expected Return on OPEB Plan Assets

The long-term expected rate of return on OPEB 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 OPEB 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 OPEB plan's target asset allocation as of September 30, 2017, 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 %	5.0 %
Small Cap Equity	13.0	5.5
International Developed Equity	11.0	7.0
International Small Cap Equity	5.0	7.0
Emerging Markets	9.0	9.5
Fixed Income	18.0	2.2
Hedge Fund	5.0	5.2
Public Natural Resources	10.0	7.0
Cash	2.0	1.5
Total	100.0 %	

*The arithmetic rates of return were provided by the System's investment consultant along with a 2.2% price inflation assumption.

OPEB Plan Rate of Return

For the year ended September 30, 2017, the annual money-weighted rate of return on OPEB plan investments, net OPEB plan investment expense, was 14.87%. The money weighted rate of return expresses investment performances, net of investment expense, adjusted for the changing amounts actually invested.

OPEB Plan Discount Rate

The single discount rate of 3.72% was used to measure the total OPEB liability. This single discount rate was based on an expected rate of return on OPEB plan investments of 7.0% and a municipal bond rate of 3.50% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"). The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to actuarially determined contributions rate. Based on these assumptions, the OPEB plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2024. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2024, and the municipal bond rate was applied to all benefit payments after that date.

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

As required by GASB Statement No. 74, the following presents the plan's net OPEB liability, calculated using a single discount rate of 3.72%, as well as what the plan's net OPEB 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	Current Single Discount Rate Assumption	1% Increase
	<u>2.72%</u>	<u>3.72%</u>	<u>4.72%</u>
Net OPEB Liability/(Asset)	\$200,234,764	\$168,336,242	\$143,055,265

Sensitivity of the Net OPEB Liability to the Healthcare Cost Trend Rate

Regarding the sensitivity of the net OPEB liability to changes in the healthcare cost trend rates, the following presents the plan's net OPEB liability, calculated using the assumed trend rates as well as what the plan's net OPEB liability would be if it were calculated using a trend rate that is one percent lower or one percent higher:

	1% Decrease	Current Healthcare Cost Trend Rate Assumption	1% Increase
Net OPEB Liability/(Asset)	\$142,222,813	\$168,336,242	\$200,734,320

Timing of the Valuation

An actuarial valuation to determine the total OPEB 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 OPEB liability is required to be rolled forward from the actuarial valuation date to the OPEB plan's fiscal year end. The total OPEB liability as of September 30, 2017, is based on the results of an actuarial valuation performed as of September 30, 2016 and rolled forward using generally accepted actuarial procedures.

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

NOTE 6 – 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, 2016
Actuarial Cost Method	Entry-Age Normal
Asset Valuation Method	Fair Value
Inflation	4.00%
Salary Increases	4.00%
Investment Rate of Return	4.41% 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 Basic Financial Statements (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLAN

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 net OPEB 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 plans 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, 2016
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Dollar Closed
Remaining Amortization Method	24 Years
Asset Valuation Method	Fair Value
Actuarial Assumptions:	
Wage Inflation	4%
Investment Rate of Return	3.72% 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
Healthcare Cost Trend Rate	8.75% trend, grading to 4% in 2026
Excise Tax	A 4.5% load was applied to the health care liabilities of current retirees and a 7.0% load was applied to the health care liabilities of future retirees to approximate the cost for future excise tax.
Aging factors	Based on the 2013 SOA Study “Health Care Costs – From Birth to Death”

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 Basic Financial Statements (Continued)

NOTE 8 - 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, 2017, total investments in hedge funds was 6.3%. The fair value of the hedge funds at September 30, 2017 was \$9,715,695.

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, 2017

Investment Type	Fair Value	Rating S & P	Moody's
Mutual Funds**	\$ 15,169,991	BBB+	A#
	15,290,865	Baa	BBB
	<u>\$ 30,460,855</u>		

** Average Rating

FINANCIAL SECTION

Notes to Basic 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, 2017, the common cash pool held the majority of its funds in depository accounts 29.0% 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, 2017, the carrying amount of deposits including time and demand deposits, was \$1.8 billion. The deposits were reflected in the accounts of the banks at \$1.8 billion. Of the bank balance, \$5.5 million was covered by federal depository insurance and \$1.8 billion was collateralized with securities held by the State's agent in the State's name. There were demand deposits of \$2.7 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, 2017, 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, 2017.

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, 2017, the System's investments were not exposed to custodial credit risk.

FINANCIAL SECTION

Notes to Basic 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, 2017, the fair value was \$30,460,855, with the investment activity for the year producing a total rate of return of 2.2%, and a rate of return since inception of 3.1%. The projected duration is 3.95 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, 2017, the System held the following investments subject to foreign currency risk:

Foreign Currency Risk

As of September 30, 2017

(Value in US dollars)

Country	Currency	Alt. Invest	Mutual Funds	International Equities	TOTAL
<u>PACIFIC</u>					
Chinese	Renminbi	\$	\$	\$ 245,766	\$ 245,766
<u>EUROPE</u>					
Pound	Sterling			457,317	457,317
European Union	Euro			113,542	113,542
<u>MIDDLE EAST</u>					
Israel	Shekel			15,840	15,840
<u>VARIOUS</u>					
		17,327,159	39,192,293		56,519,451
	Total	\$17,327,159	\$39,192,293	\$ 832,466	\$ 57,351,917

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.

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

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. Level 1 securities are valued using quoted prices in active markets for those securities; Level 2 securities are valued using significant and other observable securities; Level 3 securities are valued using significant unobservable inputs. 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.

In instances where inputs used to measure fair value fall into different levels in the above fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The MLRS' assessment of the significance of particular inputs to these fair value measurements require judgement and considers factors specific to each asset or liability.

Investment by Fair Value Level

As of September 30, 2017

	<u>Level 1</u>
Total Cash and Cash Equivalents	\$ 1,667
Equity	
Depository Receipts	718,923
Common Stocks	47,881,298
Commingled Funds and ETF's	56,480,868
Real Estate Investment Trusts	713,466
Total Equity	<u>105,794,555</u>
Fixed Income	
Commingled Funds and ETF's	30,460,855
Total Fixed Income	<u>30,460,855</u>
Total Investment by fair value level	<u>\$ 136,257,076</u>
Investments measured at the net asset value (NAV)	
Private Equity	17,327,159
Total Investments measured at NAV	<u>17,327,159</u>
Total Investments measured at fair value	<u>\$ 153,584,235</u>

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	\$17,327,159
Unfunded commitments	\$0

There are two investments reported at NAV:

- One investment is a fund that requires 95 days' notice for redemption; 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 day notice for any redemption; redemptions must occur at the end of each month.

FINANCIAL SECTION

Notes to Basic Financial Statements (Continued)

NOTE 9 - ACCOUNTING CHANGES

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 was implemented in fiscal year 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 was implemented in fiscal year 2017.

NOTE 10 - NEW ACCOUNTING PRONOUNCEMENTS

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. 84, *Fiduciary Activities*. The principal objective of this Statement is to enhance the consistency and comparability of fiduciary activity reporting by state and local governments. This Statement also is intended to improve the usefulness of fiduciary activity information primarily for assessing the accountability of governments in their roles as fiduciaries. This Statement is effective for participating employers for their fiscal years beginning after December 15, 2018.

FINANCIAL SECTION

Required Supplementary Information

Schedule of Changes in Net Pension Liability

Fiscal years ending September 30,	<u>2017</u>	<u>2016</u>	<u>2015⁽¹⁾</u>	<u>2014⁽¹⁾</u>
Total pension liability				
Service Cost	\$ 85,889	\$ 73,996	\$ 61,979	\$ 56,715
Interest on the Total Pension Liability	10,213,286	11,025,152	11,839,056	11,297,018
Benefit Changes	-	-	-	-
Difference between expected and actual experience of the Total Pension Liability	(1,617,292)	1,899,056	405,924	-
Assumption Changes	(13,496,599)	18,936,985	20,079,527	24,547,477
Benefit Payments and Refunds	(14,282,224)	(13,919,312)	(14,495,307)	(13,550,106)
Net Changes in Total Pension Liability	<u>(19,096,940)</u>	<u>18,015,877</u>	<u>17,891,179</u>	<u>22,351,104</u>
Total Pension Liability - Beginning	<u>265,662,376</u>	<u>247,646,499</u>	<u>229,755,320</u>	<u>207,404,216</u>
Total Pension Liability - Ending (a)	<u>\$246,565,436</u>	<u>\$265,662,376</u>	<u>\$247,646,499</u>	<u>\$229,755,320</u>
Plan Fiduciary Net Position				
Employer Contributions	\$ -	\$ -	\$ -	\$ -
Employee Contributions	3,895	3,648	3,226	5,662
Pension Plan Net Investment Income	15,840,766	11,324,783	(6,545,332)	14,868,119
Benefit Payments and Refunds	(14,282,224)	(13,919,312)	(14,495,307)	(13,550,106)
Pension Plan Administrative Expense	(391,937)	(405,381)	(362,431)	(430,200)
Other	6,649	-	-	-
Net Change in Plan Fiduciary Net Position	<u>1,177,149</u>	<u>(2,996,262)</u>	<u>(21,399,844)</u>	<u>893,475</u>
Plan Fiduciary Net Position - Beginning	<u>130,560,458</u>	<u>133,556,720</u>	<u>154,956,564</u>	<u>154,063,089</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$131,737,607</u>	<u>\$130,560,458</u>	<u>\$133,556,720</u>	<u>\$154,956,564</u>
Net Pension Liability - (a) - (b)	114,827,829	135,101,918	114,089,779	74,798,756
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	53.43%	49.15%	53.93%	67.44%
Covered Payroll	\$ 71,685	\$ 71,685	\$ 71,685	\$ 71,685
Net Pension Liability as a Percentage of Covered Payroll	160,183.90%	188,466.09%	159,154.33%	104,343.66%

⁽¹⁾ Schedule has been restated due to retroactively applying mortality assumption change.

Required Supplementary Information (continued)

Schedule of Changes in Net OPEB Liability

Fiscal year ending September 30,	<u>2017</u>
Total OPEB liability	
Service cost	\$ 797,000
Interest on the total OPEB liability	8,463,585
Changes in benefit terms	-
Difference between expected and actual experience	18,099
Changes of assumptions	66,226,054
Benefit payments, including refunds of employee contributions	(6,342,947)
Net changes in total OPEB liability	<u>69,161,791</u>
Total OPEB liability - beginning	<u>123,681,330</u>
Total OPEB liability - ending (a)	<u>\$ 192,843,121</u>
Plan fiduciary net position	
Employer contributions	\$ 4,571,636
Employee contributions	6,452
OPEB plan net investment income	2,754,692
Benefit payments, including refunds of employee contributions	(6,342,947)
OPEB plan administrative expense	(68,871)
Other	643,981
Net change in plan fiduciary net position	<u>1,564,943</u>
Plan fiduciary net position - beginning	<u>22,941,936</u>
Plan fiduciary net position - ending (b)	<u>\$ 24,506,879</u>
Net OPEB liability - (a) - (b)	<u>\$ 168,336,242</u>
Plan fiduciary net position as a percentage of total OPEB liability	12.71%
Covered employee payroll	\$ 1,661,862
Net OPEB liability as a percentage of covered employee payroll	10,129.38%

FINANCIAL SECTION

Required Supplementary Information (continued)

Schedules of Contributions

Pension Benefits

Fiscal Year Ended Sept. 30	Actuarially Determined Contribution	Actual Employer Contributions	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
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 [^]	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
2017	7,878,170	0	7,878,170	71,685	0.0

[^]Under revised mortality assumptions.

Other Post Employment Benefits⁽¹⁾

Fiscal Year Ended Sept. 30	Actuarially Determined Contribution	Actual Employer Contributions	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2009	\$ 7,978,764	\$ 4,302,354	3,676,410	11,717,900	36.7 %
2010	10,842,010	4,514,665	6,327,345	11,598,113	38.9
2011	11,817,097	4,287,509	7,529,588	3,658,557	117.2
2012	9,674,141	7,840,322	1,833,819	3,586,872	218.6
2013	9,630,395	4,240,388	5,390,007	3,312,132	128.0
2014	9,381,877	4,323,381	5,058,496	2,497,497	173.1
2015	9,362,804	4,473,374	4,889,430	1,733,547	258.0
2016	10,464,110	4,537,633	5,926,477	1,661,862	273.0
2017	9,067,958	4,571,636	4,496,322	1,661,862	275.1

⁽¹⁾ Includes members in both the defined benefit plan and the defined contribution plan

Required Supplementary Information (continued)

Schedules of Investment Returns

Pension Benefits

Fiscal Years Ending September 30,	Annual Return*
2014	9.76 %
2015	(4.61)
2016	8.58
2017	12.44

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

Other Post Employment Benefits

Fiscal Years Ending September 30,	Annual Return*
2017	14.87 %

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

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, four years of historical trend information is provided. Also, this is the first year the System is reporting other postemployment benefits in accordance with GASB Statement No. 74, therefore one year 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 Contributions is reported as historical trend information. The schedule 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 Contributions, and Schedule of Investment Returns are schedules that are required in implementing GASB Statement No. 67. The Schedule of Changes in Net OPEB Liability, Schedule of Contributions, and Schedule of Investment Returns are schedules that are required in implementing GASB Statement No. 74. These schedules are required to show information for ten years. Additional years will be displayed as it becomes available. The Schedule of Changes in Net Pension Liability and the Schedule of Changes in Net OPEB 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 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 Pension Contribution Rates:

Valuation Date	September 30, 2016
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)

Methods and Assumptions Used to Determine Other Post Employment Contribution Rates:

Valuation Date	September 30, 2016
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Dollar Closed
Remaining Amortization Method	24 Years Closed
Asset Valuation Method	Fair Value
Actuarial Assumptions:	
Inflation Rate	4%
Projected Salary Increases	4%
Healthcare Cost Trend Rate	8.75% in 2017, grading to 4% in 2026

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

Supporting Schedules

Summary Schedule of Administrative Expenses For Year Ended September 30, 2017

	<u>2017</u>
Personnel Services	\$ 325,387
Actuarial Services	60,865
Audit	29,200
Postage, Telephone and other	<u>45,355</u>
Total Administrative Expenses	<u><u>\$ 460,807</u></u>

Schedule of Investment Expenses* For Year Ended September 30, 2017

	<u>2017</u>
Management Fees	\$ 385,924
State Treasurer and custody fees	24,040
Other investment expenses	<u>96,764</u>
Total Investment Expenses	<u><u>\$ 506,729</u></u>

*Mutual fund management fees are netted against returns earned.

Schedule of Payments to Consultants For Year Ended September 30, 2017

	<u>2017</u>
Gabriel Roeder	<u>\$ 60,865</u>
Total Payments to Consultants	<u><u>\$ 60,865</u></u>

FINANCIAL SECTION

Supporting Schedules (continued)

Detail of Changes in Plan Fiduciary Net Position (Pension and Other Postemployment Benefits) For Year Ended September 30, 2017

	Reserves for year ended September 30, 2017						Total
	Member Savings Fund	Member Retirement Fund	Survivors Retirement Fund	Insurance Revolving Fund	Health Insurance Fund	Income Fund	
ADDITIONS							
Member contributions:							
Other member contributions	\$	\$	\$	\$ 3,895	\$ 6,452	\$	\$ 10,346
Employer contributions					3,808,200		3,808,200
Court fees					763,436		763,436
Other governmental contributions					204,042		204,042
Total contributions:				3,895	4,782,129		4,786,024
Investment income (loss)							
Net increase (decrease) in fair value of investments					2,380,542	13,547,444	15,927,986
Interest, dividends and other					450,161	2,724,039	3,174,200
Total investment income (loss)					2,830,703	16,271,483	19,102,186
Less investment expenses					(76,010)	(430,718)	(506,729)
Net investment income (loss)					2,754,692	15,840,765	18,595,457
Miscellaneous income		6,649			439,939		446,588
Total additions:		6,649		3,895	7,976,761	15,840,765	23,828,070
DEDUCTIONS							
Benefits & refunds paid to plan members & beneficiaries:							
Retirement benefits		11,502,955	2,136,651				13,639,606
Health benefits					5,952,317		5,952,317
Dental benefits					390,630		390,630
Death benefits				607,000			607,000
Refund of contribution & interest			35,618				35,618
Administrative expenses					68,871	391,937	460,807
Total deductions:	-	11,502,955	2,172,268	607,000	6,411,818	391,937	21,085,978
Net increase (decrease) in net position	-	(11,496,306)	(2,172,268)	(603,105)	1,564,943	15,448,829	2,742,092
Other changes in net position:							
Interest/loss allocations	7,680	4,418,860	8,051,751	2,970,538		(15,448,829)	
Transfer upon retirements	(91,845)	91,845					
Total other changes in net position	(84,166)	4,510,705	8,051,751	2,970,538		(15,448,829)	
Net increase (decrease) after changes	(84,166)	(6,985,601)	5,879,483	2,367,432	1,564,943		2,742,092
Net position restricted for pension benefits and OPEB:							
Beginning of Year:	236,340	37,295,412	67,957,208	25,071,498	22,941,936		153,502,394
End of Year:	\$ 152,174	\$ 30,309,811	\$ 73,836,691	\$ 27,438,930	\$ 24,506,879	\$	\$ 156,244,486

INVESTMENT SECTION

Michigan Legislative Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 2017**

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, 2017

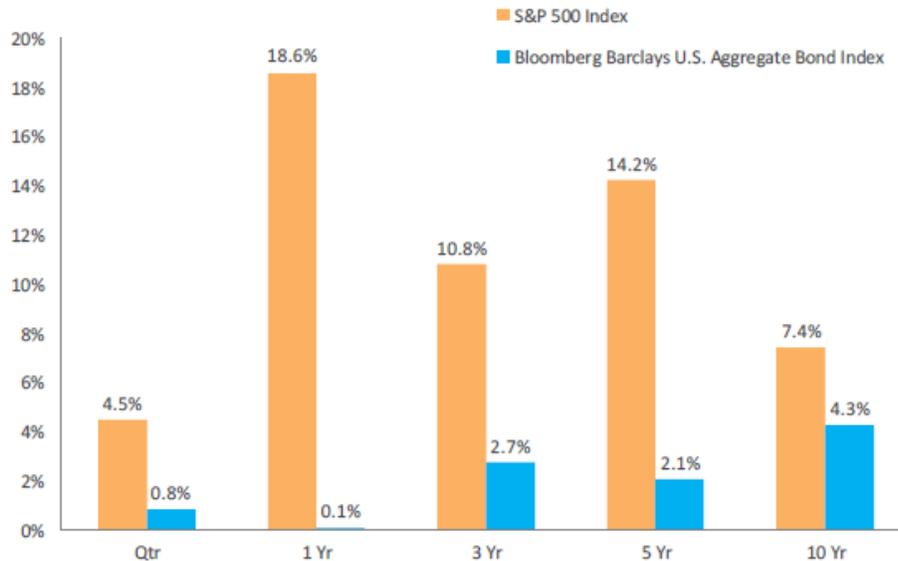
Over the past year, the economic and investment markets were buffeted by a variety of events, any one of which by itself would have historically stymied economic progress. In spite of the changing domestic and international political landscapes, the uncertainties surrounding the European Economic Union, the saber rattling by North Korea and a host of other unsettling issues, the equity markets slowly but surely continued to produce extraordinary results. As of the fiscal year end, these gains mark the 99th consecutive month of economic growth. By contrast, the fixed income markets were hard pressed to overcome the widely anticipated rise in interest rates and ended the period essentially where they started. (See chart on top of page 47)

INVESTMENT SECTION

Report on Investment Activity (continued)

MARKET REVIEW (continued)

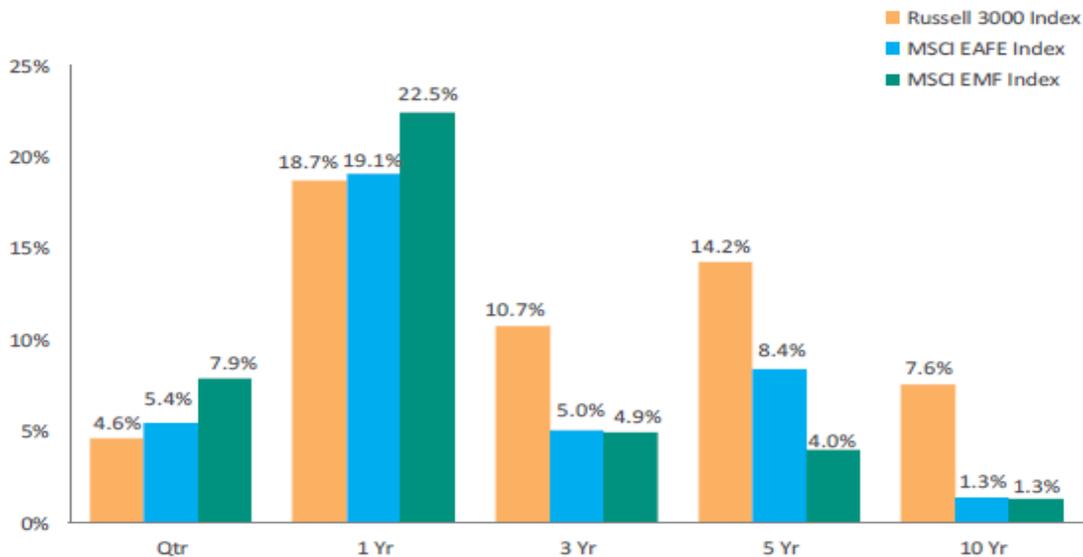
Stocks vs. Bonds



Data Sources: Standard & Poor's and Barclays

In a continuation of last year's story, international equity investments benefited from, among other things, a weakening U. S. dollar. By the end of the fiscal year, developed international returns rivaled those generated by domestic markets and the international emerging markets index posted returns in excess of twenty-two percent during the period (see chart below). The LRS portfolio's positioning in the international markets significantly added to the overall returns generated during the fiscal year ending September 30, 2017.

U.S. and International Equities



Data Sources: MSCI Barra and Russell

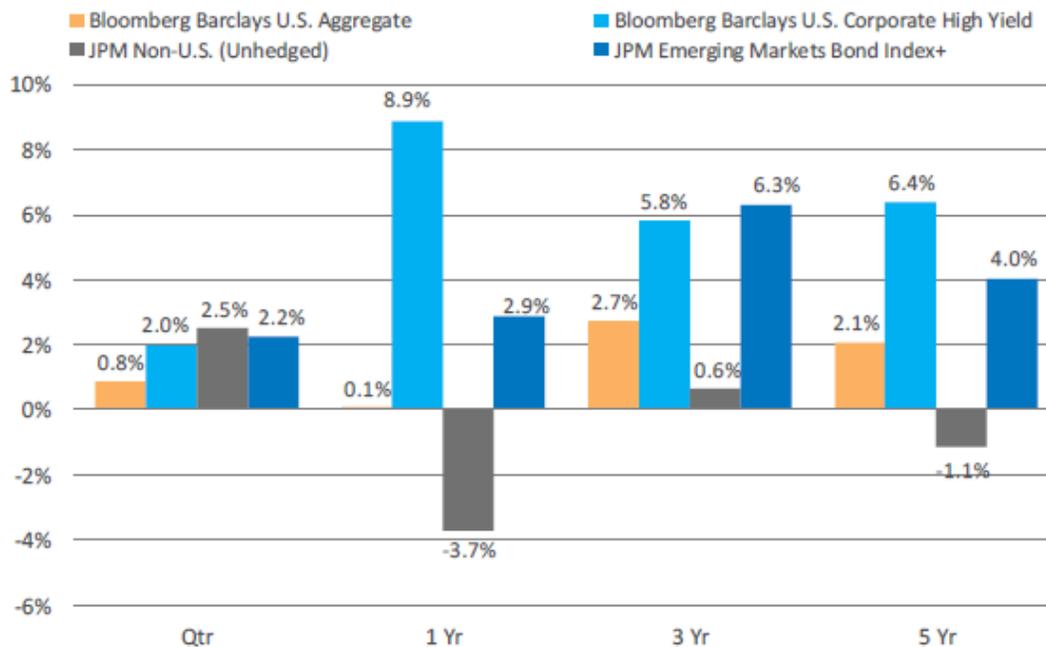
INVESTMENT SECTION

Report on Investment Activity (continued)

MARKET REVIEW (continued)

Monetary policy discussions continued to dominate the fixed income markets. The discontinuation of “quantitative easing” (QE) and the Federal Reserve’s (the FED) “forward guidance” on the pace, trajectory and the “unwinding” of the balance sheet put managers in a defensive mode. Recognizing that uncertainty may be disruptive, the LRS portfolio reduced the risk profile of the fixed income segment and was rewarded with good results. By the end of the LRS fiscal year, the managers employed outpaced the broad aggregate bond index, further contributing to the composite’s total return. While “high yield” (aka junk bonds) were the best performers during the period (see chart below), the trustees of the LRS system did not believe the benefits outweighed the risks and chose to allocate the fixed income segment in more conservative segments.

Broad Fixed Income



Data Sources: Barclays and JP Morgan

In spite of the uncertainties, the Legislative Retirement System (LRS) portfolio took full advantage of what the markets offered and generated a solid 12.8% net-of-fees return for the one-year period ending September 30, 2017. Recognizing that this portfolio needs to weather the investment climate over the longer term, the trustees focus on five-year periods which is consistent with the way the liabilities of the System are managed. The LRS portfolio’s time-weighted net-of-fees return over the five years ending September 30, 2017 was 8.5%. This return exceeds the actuarially assumed rate-of-return of 7% over five year rolling periods and represents an actuarial gain during the period under review.

The LRS portfolio is well diversified and continuously monitored by those entrusted with its care. Positioning during the most recent fiscal year was consistent with past allocations and is designed to generate results under a wide variety of economic scenarios. The portfolio continues to allocate to both domestic and international equities and has investments in a variety of fixed income segments. Inflation protection has been in place (since 2013) and non-traditional exposures add to the overall diversification of the portfolio.

The Trustees of LRS take their fiduciary responsibilities seriously and continue to conduct regular due diligence reviews on all the components of the portfolio. Performance of the total fund, each individual manager’s contribution and potential investment opportunities are regularly analyzed, discussed and challenged. The Trustees have committed to learning all they can about the markets to be sure they are in the best position to manage the portfolio during a continually changing investment landscape. Diversifying the portfolio with a variety of disparate holdings and a continual review of the asset allocation.

INVESTMENT SECTION

Report on Investment Activity (continued)

Schedule of Investment Results

for period ending September 30, 2017

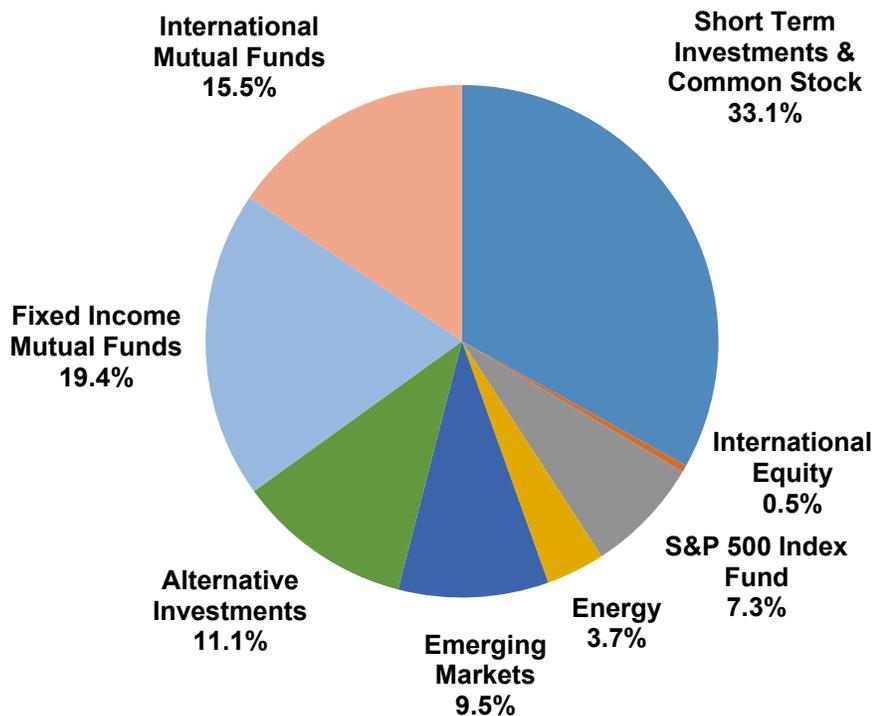
Investment Category	Current Year	Annualized Rate of Return ¹		
		3 years	5 years	10 years
Total Portfolio	12.8 %	5.5 %	8.5 %	5.7 %
Large Cap Equity Managers				
Wellington	21.0	13.4	16.9	8.4
Barrow, Hanley, Mewhinney & Strauss	14.7	7.4	12.4	5.1
Comerica	18.6	10.9	14.2	7.5
S&P 500 Index	18.6	10.8	14.2	7.4
Small Cap Equity Managers				
Rice Hall James	9.7	6.8	10.4	7.7
Cramer Rosenthal McGlynn	22.9	13.5	14.6	7.8
Russell 2000 Index	20.7	12.2	13.8	7.8
International Equity Managers				
EuroPacific Growth	20.2	7.2	9.1	3.3
MSCI AC World Index	19.6	4.7	7.0	1.3
Templeton Inst'l Foreign Smaller Co.	21.9	8.0		
MSCI Small Cap EAFE Index	21.8	11.1		
Lazard Emerging Markets	17.1	2.6	3.1	2.2
MSCI Emerging Markets Index	22.5	4.9	4.0	1.3
Morgan Stanley Frontier Emerging Markets	14.8			
MSCI Frontier Markets Index	25.5			
Fixed Income Managers				
DoubleLine Total Return Bond Fund	1.7	3.2	3.1	
Dodge & Cox Income Fund	2.6			
Bloomberg Barclays US Aggregate Ind	0.1	2.7	2.1	
Natural Resources Managers				
JPMorgan Alerian MLP Fund	(4.4)	(13.6)		
Alerian MLP Index	(3.7)	(12.9)		
Parametric Equal Sector Commodity	3.7	(5.7)		
Dow Jones UBS Commodities Index	(0.3)	(10.4)		
Hedge Fund Manager				
Ironwood International Ltd	7.4	3.9	6.5	
HFRI FOF: Conservative Index	4.6	1.8	3.5	
Bloomberg Barclays US Aggregate Ind	0.1	2.7	2.1	

¹ 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, 2017



Investment Summary As of September 30, 2017

Investment Category	Fair Value	Percentages of Fair Value	Percentages of Income/(Loss)	Fiscal Year Income/(Loss)**
Short Term Investments* & Common Stocks	\$ 51,851,115	33.1 %	60.8 %	\$ 11,608,507
International Equity	718,923	0.5	0.4	78,800
S&P 500 Index Fund	11,481,379	7.3	10.1	1,927,699
Energy	5,807,196	3.7	(19.3)	(3,691,692)
Emerging Markets	14,830,518	9.5	8.3	1,588,783
Alternative Investments	17,327,159	11.1	5.6	1,060,192
Fixed Income Mutual Funds	30,460,855	19.4	3.8	729,289
International Mutual Funds	24,362,077	15.5	30.4	5,800,609
Total Investments	\$ 156,839,221	100.0 %	100.0 %	\$ 19,102,186

* 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, 2017

Rank	Shares	Stocks	Fair Value
1	744	ALPHABET INC CL C	\$ 713,578
2	4,306	APPLE INC	663,641
3	3,831	FACEBOOK INC A	654,603
4	7,799	MICROSOFT CORP	580,948
5	2,910	UNITEDHEALTH GROUP INC	569,924
6	5,500	PHILLIPS 66	503,855
7	3,405	MASTERCARD INC A	480,786
8	6,000	LOWE S COS INC	479,640
9	8,143	ALBANY INTL CORP CL A	467,408
10	6,320	CITIGROUP INC	459,717

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

Schedule of Investment Fees

Schedule of Investment Fees at September 30, 2017

Investment Managers Fees*:

	<u>Assets under Management</u>	<u>Fees</u>
World Asset Mgt/Comerica	\$11,481,379	\$ 6,723
Cramer Rosenthal McGlynn	10,609,674	105,448
Barrow Hanley Mewhinney & Strauss	14,544,259	98,828
Rice Hall James	10,459,062	87,569
Wellington	14,731,019	87,357
		<u>385,924</u>
Other Investment Fees		
State Treasurer		24,040
Fund Evaluation Group		96,764
		<u>120,804</u>
	TOTAL	<u>\$ 506,729</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

Investment Broker Name	Fiscal Year Ended September 30, 2017		
	Shares Traded	Total Value of Commissions	Average Commission Per Share
ALLEN & COMPANY LLC	1,852	74.20	0.04
AUERBACH GRAYSON AND CO. INC.	400	14.00	0.04
AUTONOMOUS	1,600	56.00	0.04
AVONDALE PARTNERS LLC	3,428	137.12	0.04
B.RILEY & CO., LLC	4,110	164.40	0.04
BARCLAYS CAPITAL LE	36,704	1,373.32	0.04
BERENBERG	4,200	147.00	0.04
BLOOMBERG TRADEBOOK LLC	10,775	115.75	0.01
BMO CAPITAL MARKETS	5,226	217.47	0.04
BROADCORT CAPITAL CORP	5,470	191.89	0.04
BTIG, LLC	18,435	460.86	0.02
BUCKINGHAM RESEARCH GROUP INC	2,900	101.50	0.04
BURKE AND QUICK PARTNERS LLC	1,085	43.40	0.04
CANACCORD GENUITY INC.	3,139	120.34	0.04
CANTOR FITZGERALD + CO.	31,505	787.71	0.03
CITIGROUP GLOBAL MARKETS INC	30,421	727.25	0.02
CLSA AMERICAS	100	3.50	0.04
CONVERGEX LLC	79,107	2,854.96	0.04
CORNERSTONE MACRO LLC	900	31.50	0.04
COWEN AND COMPANY, LLC	38,755	1,364.85	0.04
CRAIG - HALLUM	4,711	161.88	0.03
CREDIT SUISSE SECURITIES (USA) LLC	67,211	1,677.50	0.02
DAVIDSON D.A. + COMPANY INC.	12,019	386.48	0.03
DEUTSCHE BANK SECURITIES INC	46,723	1,223.58	0.03
DOUGHERTY & COMPANY LLC	3,094	123.76	0.04
DOWLING & PARTNERS	2,100	73.50	0.04
DREXEL HAMILTON LLC	693	27.72	0.04
FIDELITY CAPITAL MARKETS	1,695	67.80	0.04
FIS BROKERAGE & SECURITIES SERVICES LLC	1,700	17.00	0.01
GOLDMAN SACHS + CO	58,130	1,723.28	0.03
GORDON HASKETT CAPITAL CORP	805	32.20	0.04
GUGGENHEIM CAPITAL MARKETS LLC	1,650	42.38	0.03
HEIGHT SECURITIES, LLC	550	19.25	0.04
INDUSTRIAL AND COMMERCIAL BANK	2,218	66.54	0.03
INSTINET	38,727	591.80	0.02
INTL FCSTONE FINANCIAL INC.	200	7.00	0.04
INVESTMENT TECHNOLOGY GROUP INC.	5,424	46.12	0.01
ISI GROUP INC	10,065	287.62	0.03
J.P. MORGAN SECURITIES INC.	42,204	1,530.43	0.04
JANNEY MONTGOMERY, SCOTT INC	6,299	201.09	0.03
JEFFERIES + COMPANY INC	20,979	639.58	0.03
JMP SECURITIES	375	15.00	0.04
JOHNSON RICE & COMPANY LLC	6,211	221.27	0.04
JONESTRADING INSTITUTIONAL SERVICES LLC	19,364	500.82	0.03

INVESTMENT SECTION

Schedule of Fees and Commissions (continued)

Investment Broker Name	Fiscal Year Ended September 30, 2017		
	Shares Traded	Total Value of Commissions	Average Commission Per Share
KEEFE BRUYETTE + WOODS INC	11,460	411.50	0.04
KEYBANC CAPITAL MARKETS INC	22,146	818.09	0.04
KING, CL, & ASSOCIATES, INC	2,291	85.89	0.04
KNIGHT EQUITY MARKETS L.P.	34,922	980.09	0.03
LEERINK PARTNERS LLC	1,045	40.18	0.04
LIQUIDNET INC	96,580	1,849.98	0.02
LOOP CAPITAL MARKETS	4,341	130.23	0.03
LUMINEX TRADING AND ANALYTICS LLC	300	0.75	0.00
MERRILL LYNCH PIERCE FENNER + SMITH INC	18,435	624.99	0.03
MIZUHO SECURITIES USA INC.	2,065	82.03	0.04
MKM PARTNERS LLC	1,950	69.75	0.04
MORGAN STANLEY CO INCORPORATED	20,987	574.46	0.03
NEEDHAM AND COMPANY LLC	26,275	832.32	0.03
OPPENHEIMER + CO. INC.	535	21.40	0.04
OTR GLOBAL TRADING LLC	174	6.09	0.04
PENSERRA SECURITIES	4,541	90.82	0.02
PERSHING LLC	5,762	230.48	0.04
PICKERING ENERGY PARTNERS, INC	600	21.00	0.04
PIPER JAFFRAY	9,327	343.78	0.04
RAYMOND JAMES AND ASSOCIATES INC	33,453	1,185.29	0.04
RBC CAPITAL MARKET'S	18,377	482.68	0.03
REDBURN	4,100	143.50	0.04
RENAISSANCE MACRO SECURITIES, LLC	215	7.53	0.04
ROBERT W. BAIRD CO.INCORPORATE	36,720	1,405.40	0.04
ROTH CAPITAL PARTNERS LLC	2,017	80.68	0.04
SANDLER ONEILL AND PARTNERS L.P.	2,775	107.10	0.04
SANFORD C BERNSTEIN CO LLC	8,830	154.40	0.02
SCOTIA CAPITAL (USA) INC	4,200	147.00	0.04
SEAPORT GROUP SECURITIES, LLC	4,547	136.41	0.03
SIDOTI + COMPANY LLC	16,404	621.77	0.04
STATE STREET GLOBAL MARKETS, LLC	21,400	593.98	0.03
STEPHENS, INC.	25,910	846.69	0.03
STIFEL NICOLAUS+ CO INC	48,181	1,717.86	0.04
STRATEGAS SECURITIES LLC	4,000	140.00	0.04
STUART FRANKEL + CO INC	800	12.00	0.02
SUNTRUST CAPITAL MARKETS, INC.	56,509	2,153.57	0.04
TELSEY ADVISORY GROUP LLC	11,450	398.38	0.03
UBS SECURITIES LLC	18,717	679.57	0.04
WALL STREET ACCESS	5,255	42.03	0.01
WEDBUSH MORGAN SECURITIES INC	3,684	131.98	0.04
WEEDEN + CO.	151,700	1,968.47	0.01
WELLS FARGO SECURITIES, LLC	8,142	285.39	0.04
WILLIAM BLAIR & COMPANY L.L.C	13,763	494.49	0.04
WUNDERLICH SECURITIES INC	5,396	185.45	0.03
TOTALS	1,403,540	40,006.07	

INVESTMENT SECTION



Mackinac Bridge, Opening Day, November 1, 1957 (Photo credit: Mackinac Bridge Authority)

The Mackinac Bridge opened on schedule. The bridge took three and a half years to build (minus winter months) and cost approximately \$100 million.



“The Straits of Mackinac” (Photo credit: Mackinac Bridge Authority).

This public ferry boat, considered the flagship of a fleet of carriers administered by the state Department of Highways, transported people and vehicles between the Lower and Upper Peninsulas of Michigan from 1928 until the Mackinac Bridge was built. The fleet was retired on November 1, 1957, when the bridge opened.

Michigan Legislative Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 2017**

**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



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December 11, 2017

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, 2016 annual actuarial valuations was to determine the contribution requirements for the fiscal year ending September 30, 2017 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, 2016.

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 No. 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.

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

Actuary's Certification (continued)

Board of Trustees
Michigan Legislative Retirement System
December 11, 2017
Page 2

As of the valuation date, MLRS is 69.9% funded based upon the smoothed value of assets and 68.6% 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, 2016 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, 2016 was zero, instead of the actuarially computed \$8,063,327. 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/FP:sc



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[#]</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				

[#] 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
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
2016	1	71,685	71,685	0.0	56.3	13.8

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	0.6	52.9	8.6
2014	34	2,497,497	73,456	(0.3)	53.4	10.2
2015	24	1,733,547	72,231	(1.7)	52.2	10.5
2016	23	1,661,862	72,255	0.0	53.7	11.4

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>		
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
2016	5	656,260	13	735,829	271	13,335,094	(0.6)	49,207

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
2016	8	162,321	13	159,096	359	5,574,952	0.1	15,529

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.

Pension Benefits									
(\$ in thousands)									
Actuarial Accrued Liability (AAL)									
(1) (2) (3)									
Active Members									
Valuation Date	Active Member Contributions	Retirants and Beneficiaries	(Employer Financed Portion)	Valuation Assets	Portion of AAL Covered by Assets				
Sept. 30					(1)	(2)	(3)	(4)¹	
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	
2016	236	184,070	5,918	132,976	100	72	0	70	

¹percents 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	Actuarial Accrued Liability (AAL)			Valuation Assets	Portion of AAL Covered by Assets			
	(1)	(2)	(3)		(1)	(2)	(3)	(4) ¹
	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
2016	-	132,404	51,821	22,942	0	17	0	13

¹percents 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, 2016 Resulting from Differences Between Assumed Experience & Actual Experience

<u>Type of Activity</u>	<u>Gain/(Loss)</u>
1. Retirements (including Disability Retirement). If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, a loss.	\$
2. Withdrawals From Employment. (including death-in-service) If more liabilities are released by withdrawals and deaths than assumed, there is a gain. If smaller releases, a loss.	
3. Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	
4. Investment Income. If there is greater investment income than assumed, there is a gain. If less income, a loss.	3,541,681
5. Death After Retirement. If retirants live longer than assumed, there is a loss. Of not as long, a gain.	1,125,548
6. Rehires. Rehires will generally result in an actuarial loss.	
7. Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.	<u>779,766</u>
8. Composite Gain (or Loss) During Year	<u><u>\$ 5,446,995</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, 2017**

**STATISTICAL
SECTION**



Schedule of Revenue by Source
Schedule of Expenses by Type
Schedule of Benefit Expenses by Type
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
Actuarial Value of Assets compared to Actuarial Accrued Liability
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.

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

Schedule of Funding Progress – OPEB 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 and Net OPEB Liability for the OPEB plan.

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

Actuarial Value of OPEB Plan Assets compared to Actuarial Accrued OPEB Plan Liability

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

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
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
2017	10,346	3,808,200	204,042	763,436	19,042,045	23,828,070

** 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
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
2017	20,589,553	35,618	460,807	21,085,978

* Includes health benefits

STATISTICAL SECTION

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

Fiscal Year Ended	Regular & Survivor Pension Benefits	Death Benefits	Dental Benefits	Health Benefits	Total
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
2017	13,639,606	607,000	390,630	5,952,317	20,589,553

STATISTICAL SECTION

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

	Fiscal Year									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Additions										
Member contributions	\$ 13,286	\$ 11,581	\$ 11,044	\$ 10,343	\$ 7,635	\$ 6,527	\$ 5,662	\$ 3,226	\$ 3,648	\$ 3,895
Employer contributions										
Other Gov't contributions										
Court fees		269,944								
Net Investment income	(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	15,840,765
Other income				1						6,649
Total additions	(29,268,103)	5,846,206	15,042,637	(990,716)	26,179,294	23,213,563	14,873,781	(6,542,106)	11,328,431	15,851,309
Deductions										
Benefit payments	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	14,246,606
Refunds	9,095	14,638	17,506	11,496	15,672	11,700	20,911	13,285	72,715	35,618
Qualified rollovers		93,823	287,969					711,067		
Administrative expenses	347,102	335,644	354,649	396,358	411,128	372,703	430,200	362,431	405,381	391,937
Total deductions	10,774,968	11,694,923	12,115,267	12,522,143	13,222,489	13,275,631	13,980,306	14,857,738	14,324,693	14,674,160
Changes in Net position	<u><u>\$(40,043,071)</u></u>	<u><u>\$(5,848,717)</u></u>	<u><u>\$ 2,927,370</u></u>	<u><u>\$(13,512,859)</u></u>	<u><u>\$ 12,956,805</u></u>	<u><u>\$ 9,937,932</u></u>	<u><u>\$ 893,475</u></u>	<u><u>\$(21,399,844)</u></u>	<u><u>\$(2,996,262)</u></u>	<u><u>\$ 1,177,149</u></u>

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

	Fiscal Year									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Additions										
Member contributions	\$ 131,752	\$ 144,804	\$ 153,367	\$ 104,320	\$ 91,687	\$ 107,257	\$ 118,129	\$ 123,064	\$ 132,090	\$ 6,452
Employer contributions	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	3,808,200
Other Gov't contribution:	153,982	160,758	150,113	880,159	255,590	153,256	167,078	180,690	207,065	204,042
Court fees	1,219,327	878,254	1,090,565	999,609	952,922	940,187	871,481	866,174	804,133	763,436
Net Investment income	(2,583,379)	541,287	1,556,845	(159,724)	3,026,046	3,361,413	2,187,276	(996,079)	1,834,640	2,754,692
Other income	352,084	308,727	252,403				200,690	633,325	626,101	439,939
Total additions	2,697,866	5,457,930	6,627,393	5,112,264	11,213,645	7,862,313	6,996,554	4,414,374	7,337,530	7,976,761
Deductions										
Benefit payments	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	6,342,947
Refunds										
Qualified rollovers										
Administrative expenses	33,672	34,540	36,496	114,500	47,574	67,088	63,683	65,337	66,289	68,871
Total deductions	4,751,693	5,189,163	5,329,097	5,819,539	5,567,734	5,880,659	6,177,890	6,199,529	6,235,271	6,411,818
Changes in Net position	<u><u>\$(2,053,827)</u></u>	<u><u>\$ 268,767</u></u>	<u><u>\$ 1,298,296</u></u>	<u><u>\$(707,275)</u></u>	<u><u>\$ 5,645,911</u></u>	<u><u>\$ 1,981,654</u></u>	<u><u>\$ 818,664</u></u>	<u><u>\$(1,785,155)</u></u>	<u><u>\$ 1,102,259</u></u>	<u><u>\$ 1,564,943</u></u>

STATISTICAL SECTION

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

	Fiscal Year									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Type of Benefit										
Age and service benefits:										
Retirees	\$ 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	\$11,502,955
Survivors	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	2,136,651
Death in service benefits	154,398	457,500	333,172	140,000	325,796	134,000	381,500	376,678	395,000	607,000
Total benefits	\$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	\$14,246,606
Type of refund										
Death	\$ 9,095	\$ 14,638	\$ 17,506	\$ 11,098	\$ 15,672	\$ 11,700	\$ 20,911	\$ 13,284	\$ 61,780	\$ 35,618
Separation										
Other		93,823	287,969	398				711,067	10,935	
Total Refunds	\$ 9,095	\$ 108,461	\$ 305,475	\$ 11,496	\$ 15,672	\$ 11,700	\$ 20,911	\$ 724,352	\$ 72,715	\$ 35,618

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

	Fiscal Year									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Type of Benefit										
Healthcare benefits:										
Health benefits	\$ 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	\$ 5,952,317
Dental benefits	330,612	394,566	426,560	448,263	417,299	417,115	417,313	409,246	404,929	390,630
Total benefits	\$ 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	\$ 6,342,947

STATISTICAL SECTION

Schedule of Retired Members by Type of Benefit - Pension Plan As of September 30, 2017

Amount of Monthly Benefit	Number of Retired Members	Type of Retirement*				
		1	2	3	4	5
Deferred	8	4	4	0	0	0
\$ 1 - \$ 500	1	1	0	0	0	0
501 - 1,000	7	5	0	2	0	0
1,001 - 1,500	13	5	2	5	1	0
1,501 - 2,000	20	4	8	8	0	0
2,001 - 2,500	33	27	0	6	0	0
2,501 - 3,000	29	22	0	7	0	0
3,001 - 3,500	20	9	1	10	0	0
3,501 - 4,000	17	11	4	2	0	0
4,001 - 4,500	18	12	0	6	0	0
4,501 - 5,000	18	13	0	5	0	0
Over 5,000	93	85	0	8	0	0
Total	277	198	19	59	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 Type of Benefit - Other Postemployment Benefits As of September 30, 2017

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	123	97	100	101
Deferred	3	3	3	3
\$ 1 - \$ 500	0	0	0	0
501 - 1,000	2	2	2	2
1,001 - 1,500	10	10	10	10
1,501 - 2,000	20	19	19	19
2,001 - 2,500	33	33	33	33
2,501 - 3,000	27	26	27	27
3,001 - 3,500	20	20	20	20
3,501 - 4,000	17	17	17	17
4,001 - 4,500	18	18	18	18
4,501 - 5,000	18	18	18	18
Over 5,000	93	91	92	92
Total	384	354	359	360

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

Schedule of Funding Progress – Pension Plan

(in thousands)

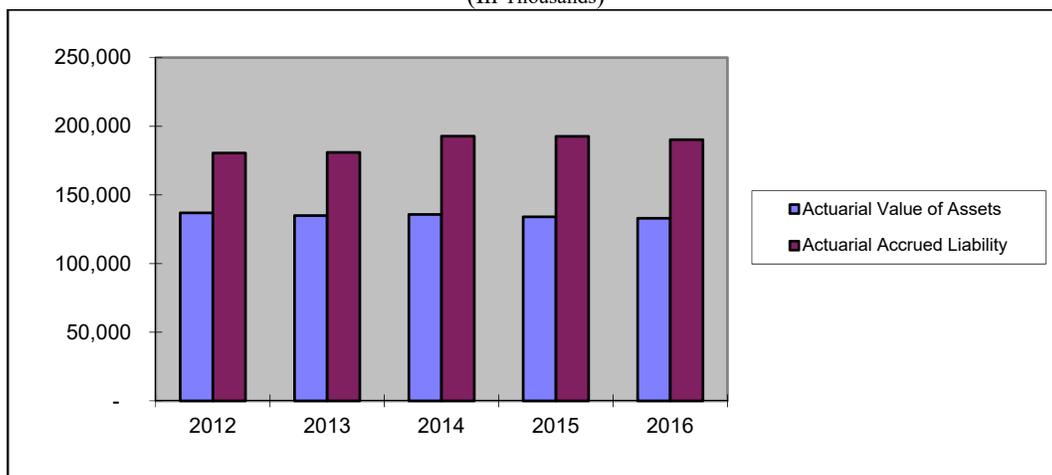
Valuation Date Sept 30	Actuarial Value of Assets (a)	Actuarial Liability (AAL) Entry Age (b)	Unfunded (Overfunded) Accrued Liability (UAAL) (b-a)	Funded Ratio AAL (a/b)	Coverd Payroll ⁽¹⁾ (c)	UAAL as a % of Coverd Payroll ⁽²⁾ ((b-a)/c)
2007	\$ 167,750	\$ 163,313	\$ (4,437)	103 %	\$ 1,332	N/A
2008	169,986	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
2016	132,976	190,224	57,248	70	72	N/A

⁽¹⁾ October based payrolls

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

Actuarial Value of Pension Plan Assets compared to Actuarial Accrued Pension Plan Liability Fiscal Years Ended September 30

(In Thousands)



STATISTICAL SECTION

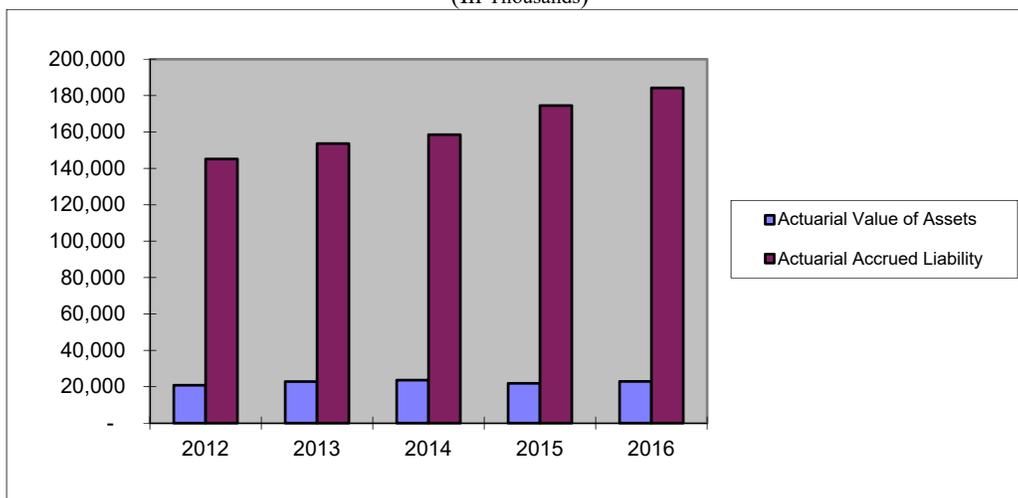
Schedule of Funding Progress – Other Postemployment Benefit Plan⁽²⁾ (in thousands)

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 ⁽¹⁾ (c)	UAAL as a % of Covered Payroll ⁽²⁾ ((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
2016	22,942	184,225	161,283	12	1,662	9,705

⁽¹⁾ October based payrolls

⁽²⁾ Includes members in both the defined benefit plan and the defined contribution plan

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



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 10/1/07 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					
Period 10/1/16 to 9/30/17							
Average monthly benefit		\$1,232	\$3,092				
Average final average salary		\$67,766	\$101,650				
Number of retired members		4	1				

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 10/1/07 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					
Period 10/1/16 to 9/30/17							
Average monthly benefit		\$704	\$1,546				
Average final average salary		\$72,859	\$90,650				
Number of retired members		7	2				