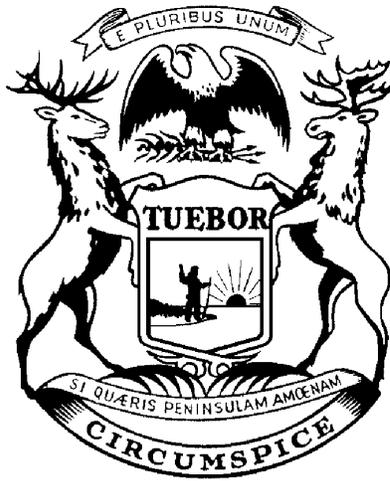


Michigan Military Retirement Provisions

A Pension Trust Fund of the State of Michigan

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



MMRP

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

TABLE OF CONTENTS

INTRODUCTORY SECTION	3
Letter of Transmittal	4
Administrative Organization	8
Retirement Board Members	8
Advisors and Consultants.....	8
Organization Chart.....	9
FINANCIAL SECTION	11
Independent Auditor's Report.....	12
Management's Discussion and Analysis	14
Basic Financial Statements	17
<i>Statement of Pension Plan Fiduciary Net Position</i>	17
<i>Statement of Changes in Pension Plan Fiduciary Net Position</i>	18
Notes To Basic Financial Statements.....	19
Required Supplementary Information.....	39
Schedule of Changes in Net Pension Liability	39
Schedule of Contributions	40
Schedule of Pension Investment Returns	40
Note to Required Supplementary Information	41
Supporting Schedules	42
Summary Schedule of Pension Plan Administrative and Other Expenses	42
Schedule of Investment Expenses	43
Schedule of Payments for Professional Services.....	43
Detail of Changes in Plan Fiduciary Net Position	44
INVESTMENT SECTION	45
Report on Investment Activity.....	46
Asset Allocation.....	47
Investment Results.....	47
Largest Assets Held	56
Schedule of Investment Fees.....	57
Schedule of Investment Commissions	58
Investment Summary	59
ACKNOWLEDGMENTS	60

INTRODUCTORY SECTION

Retirement Board Members
Advisors and Consultants
Organization Chart

INTRODUCTORY SECTION

Letter of Transmittal

Michigan Military
Retirement Provisions
P.O. Box 30171
Lansing, Michigan 48909-7671
Telephone 517- 322-5103
Outside Lansing 1-800-381-5111

STATE OF MICHIGAN

RICK SNYDER, Governor

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET

July 20, 2018

The Honorable Rick Snyder
Governor, State of Michigan

Members of the Legislature
State of Michigan

Retirement Board Members
and
Members, Retirees, and Beneficiaries

Ladies and Gentlemen:

We are pleased to present the comprehensive annual financial report of Michigan Military Retirement Provisions (MMRP) for fiscal year 2017.

INTRODUCTION TO REPORT

MMRP were established by legislation under Public Act 150 of 1967 (the Michigan Military Act) and are administered by the Office of Retirement Services (ORS). The number of active and retired members and beneficiaries of MMRP is presented in Note 1 of the financial statements in the Financial Section of this report. The purpose of MMRP is to provide benefits for all Michigan National Guard members. The services performed by ORS staff provide benefits to members, retirees, and beneficiaries.

Responsibility

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the leadership team of MMRP. 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 MMRP.

INTRODUCTORY SECTION

Letter of Transmittal (continued)

Internal Control Structure

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

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

Independent Auditors and Actuary

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

Actuarial Valuations are conducted on an annual basis. The purpose of the valuation is to evaluate the mortality, service, compensation and other financial experience of MMRP and to recommend funding contributions for the subsequent year. The annual actuarial valuation was completed by Gabriel Roeder Smith & Company for the fiscal year ended September 30, 2016. Actuarial certification and supporting statistics are included in the Actuarial Section of this report.

Management's Discussion and Analysis (MD&A)

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

PROFILE OF THE GOVERNMENT

MMRP were established by Public Act 150 of 1967 and are administered by a nine-member board. Executive order 2015-13 created a State of Michigan Retirement Board responsible for the functions, duties and responsibilities of the State Employees' Retirement System, the Judges Retirement System and the Military Retirement Provisions. Executive Order 2015-13 further established MMRP as a qualified pension plan under section 401 of the Internal Revenue Code. MMRP are administered in accordance with the State Employees' Retirement Act and other applicable state and federal laws governing the investment and administration of such retirement trusts. Financing comes from investment earnings and legislative appropriation.

INTRODUCTORY SECTION

Letter of Transmittal (continued)

ECONOMIC CONDITIONS AND OUTLOOK

Despite challenging economic times, MMRP continue to show steady performance over the long-term.

Investments

The State Treasurer is the investment fiduciary and custodian of all investments of MMRP pursuant to State law. The primary investment objective is to maximize the rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to eliminate inordinate risks and to meet the actuarial assumption for the investment return rate. A summary of asset allocation can be found in the Investment Section of this report.

Accounting System

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

Funding

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

Pension – Prefunding for pension benefits began in fiscal year 2016. The actuarial value of the assets and actuarial accrued liability of MMRP were \$3.7 million and \$49.7 million, respectively, resulting in a funded ratio of 7.4 percent on September 30, 2016.

MAJOR GOALS ACCOMPLISHED

Assumed Rate of Return Reduction– The Department of Technology, Management and Budget director and the retirement board recently approved lowering the assumed rate of return (AROR) on investments from 8 percent to 7.5 percent. By adopting a lower AROR, the administration is protecting the long-term security of pensions. This also follows industry best practices. National Association of State Retirement Administrators data shows the median AROR nationwide has been trending downward and is currently 7.5 percent.

In addition to lowering the AROR to 7.5 percent, leadership adopted a dedicated gains policy which applies investment returns in excess of the current AROR to permanently reduce the future AROR below 7.5 percent while largely off-setting increases in required contributions.

Project SIGMA Changes Go Live – ORS deployed changes to the line of business application, Clarety, as part of the State of Michigan's Project SIGMA. The interface between Clarety and SIGMA handles a variety of important business, but none more critical than monthly pension payroll. Each month, nearly \$450 million dollars are paid to 289,000 pension recipients who rely on that income for financial security. Test plans were executed over the past year involving collaboration across

INTRODUCTORY SECTION

Letter of Transmittal (continued)

state agencies to coordinate downstream validation and upstream data setup needs. Successful delivery of the project ensures payments to retirees continue to be delivered accurately and on time.

ACKNOWLEDGEMENTS

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

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

Sincerely,



David L. DeVries, Director
Department of Technology, Management & Budget



Kerrie Vanden Bosch, Director
Office of Retirement Services

INTRODUCTORY SECTION

Administrative Organization

RETIREMENT BOARD MEMBERS*

Judge Mark T. Boonstra
General Public
Term Expires Dec. 31, 2019

Anne Marie Storberg
Ex-officio Member Representing
State Treasurer

Matthew Fedorchuk
Active State Employee
Term Expires Dec. 31, 2018

John Gnodke
Ex-officio Member Representing
State Personnel Director

Laurie Hill, Chair
Retired State Employee
Term Expires Dec. 31, 2019

Molly Jason
Ex-officio Member Representing
Attorney General

Craig Murray
Ex-officio Member Representing
Auditor General

Judge David H. Sawyer
Active Judge
Term Expires Dec. 31, 2017

Lt. John Wojcki
Michigan National Guard
Term Expires Dec. 31, 2018

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

ADVISORS AND CONSULTANTS

Actuaries

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

Independent Auditors

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

Investment Manager and Custodian

Nick A. Khouri
State Treasurer
State of Michigan

Legal Advisor

Bill Schuette
Attorney General
State of Michigan

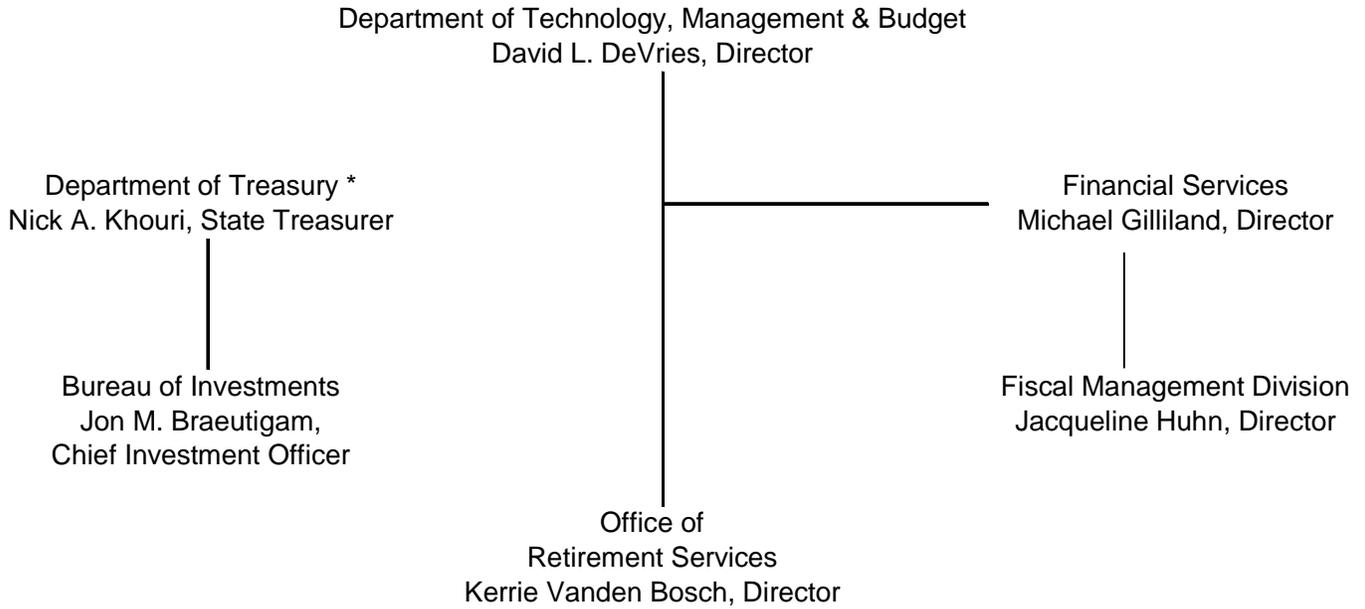
Investment Performance Measurement

State Street Corporation
State Street Investment Analytics
Boston, MA

INTRODUCTORY SECTION

Administrative Organization (continued)

Organization Chart



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

INTRODUCTORY SECTION

This page was intentionally left blank.

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*

Ms. Laurie Hill, Chair
State of Michigan Retirement Board
and
Mr. David L. DeVries, Director
Department of Technology, Management, and Budget
and
Ms. Kerrie L. Vanden Bosch, Director
Office of Retirement Services

Dear Ms. Hill, Mr. DeVries, and Ms. Vanden Bosch:

Report on the Financial Statements

We have audited the accompanying financial statements of the Michigan Military Retirement Provisions (MMRP) as of and for the fiscal year ended September 30, 2017 and the related notes to the financial statements, which collectively comprise MMRP'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 MMRP 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 6 to the financial statements, MMRP adopted Governmental Accounting Standards Board (GASB) Statement 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

Ms. Laurie Hill, Chair
Mr. David L. DeVries, Director
Ms. Kerrie L. Vanden Bosch, Director
Page 2

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in net pension liability, schedule of contributions, schedule of pension 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 MMRP's basic financial statements. The supporting schedules and the introductory and investment 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 and investment 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 MMRP'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 MMRP'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 MMRP's internal control over financial reporting and compliance.

Sincerely,

Doug Ringler
Auditor General
July 20, 2018

FINANCIAL SECTION

Management's Discussion and Analysis*

Effective January 1, 2016, in accordance with Executive Order 2015-13, the Michigan Military Retirement Provisions (MMRP) became a qualified pension plan created in trust under Section 401 of the Internal Revenue Code. MMRP will be administered in accordance with the State Employees' Retirement Act and all plan documents relating the governance of the same. Our discussion and analysis of MMRP financial performance provides an overview of MMRP's financial activities for the fiscal year ended September 30, 2017. Please read it in conjunction with the basic financial statements, which follow this discussion.

FINANCIAL HIGHLIGHTS

- MMRP assets exceeded liabilities at the close of fiscal year 2017 by \$4.3 million (reported as *net position*). Net position is restricted for pension benefits to meet future benefit payments.
- Additions for the year were \$5.3 million, which are comprised primarily of employer contributions.
- Deductions increased over the prior year from \$3.2 million to \$4.6 million or 42.4%.

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

This Comprehensive Annual Financial Report (CAFR) consists of two financial statements; *The Statement of Pension Plan Fiduciary Net Position* (page 17) and *The Statement of Changes in Pension Plan Fiduciary Net Position* (page 18). These financial statements report information about MMRP, as a whole, and about its financial condition that should help answer the question: Is MMRP, 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 Fiduciary Net Position presents all of MMRP's assets and liabilities, with the difference between the two reported as fiduciary net position. Over time, increases and decreases in fiduciary net position measure whether MMRP's financial position is improving or deteriorating. *The Statement of Changes in Pension Plan Fiduciary Net Position* presents how MMRP's fiduciary net position changed during the most recent fiscal year. These two financial statements should be reviewed along with the Schedule of Changes in Net Pension Liability (page 39) and Schedule of Contributions (page 40) to determine whether MMRP is becoming financially stronger or weaker.

FINANCIAL ANALYSIS

MMRP total assets as of September 30, 2017, were \$4.8 million and were mostly comprised of investments. Total assets increased \$1.0 million or 25.8% between fiscal years 2016 and 2017 due primarily to contributions.

Total liabilities as of September 30, 2017, were \$405 thousand and were comprised of accounts payable, amounts due to other funds, and obligations under securities lending. Total liabilities increased \$216 thousand or 114.3% between fiscal years 2016 and 2017 due primarily to increased obligations under securities lending.

MMRP assets exceeded its liabilities at the close of fiscal year 2017 by \$4.3 million. Total net position restricted for pension increased \$758 thousand or 21.1% between fiscal years 2016 and 2017 due primarily to contributions exceeding benefit payments.

FINANCIAL SECTION

Management's Discussion and Analysis (Continued)

Plan Fiduciary Net Position (in thousands)

	2017	2016	Increase (Decrease)
Assets			
Equity in common cash	\$ 12	\$ 3,718	(99.7) %
Receivables	6	62	(91.0)
Investments	4,446		
Securities lending collateral	290		
Total Assets	4,754	3,780	25.8
Liabilities			
Accounts payable and other accrued liabilities	5	189	(97.3)
Amounts due to other funds	110		
Obligations under securities lending	290		
Total Liabilities	405	189	114.3
Net Position Restricted for Pension Benefits	\$ 4,349	\$ 3,591	21.1 %

ADDITIONS TO PLAN FIDUCIARY NET POSITION

The reserves needed to finance pension are accumulated through the employer contributions from the State of Michigan General Fund. Contributions and net investment income for fiscal year ending September 30, 2017 totaled \$5.3 million. Total additions for fiscal year 2017 decreased \$1.5 million or 21.7% from those of fiscal year 2016 due primarily to a decrease in employer contributions. Fiscal year 2017 employer contributions decreased as compared to fiscal year 2016 due to contributions received in fiscal year 2016 from prior year funding.

DEDUCTIONS FROM PLAN FIDUCIARY NET POSITION

The primary deductions of MMRP include the payment of pension benefits to members and beneficiaries, and the cost of administering MMRP. Total deductions for fiscal year ending September 30, 2017 were \$4.6 million, an increase of 42.4% from fiscal year 2016 deductions.

The payment of pension benefits increased by \$1.1 million or 38.1% between fiscal years 2016 and 2017. Administrative and other expenses increased by \$232 thousand or 92.6% from \$250 thousand to \$482 thousand between fiscal years 2016 and 2017. Administrative expenses increased due to an increase of professional services.

FINANCIAL SECTION

Management's Discussion and Analysis (Continued)

Changes in Plan Fiduciary Net Position (in thousands)

	<u>2017</u>	<u>2016</u>	<u>Increase (Decrease)</u>
Additions			
Employer contributions	\$ 5,245	\$ 6,790	(22.8) %
Net investment income (loss)	78	11	606.0
Miscellaneous income	<u>7</u>	<u>1</u>	<u>801.1</u>
Total additions	<u>5,329</u>	<u>6,802</u>	<u>(21.7)</u>
Deductions			
Pension benefits	4,090	2,961	38.1
Administrative and other expenses	<u>482</u>	<u>250</u>	<u>92.6</u>
Total deductions	<u>4,571</u>	<u>3,211</u>	<u>42.4</u>
Net Increase (Decrease) in Net Position	758	3,591	(78.9)
Net Position Restricted for Pension Benefits:			
Beginning of Year	<u>3,591</u>		
End of Year	<u>\$ 4,349</u>	<u>\$ 3,591</u>	<u>21.1</u> %

MMRP AS A WHOLE

MMRP's overall Fiduciary Net Position experienced an increase in 2017 by \$758 thousand. Management believes that MMRP is financially sound and positioned to meet its ongoing benefit obligations due, in part, to prudent cost controls, and strategic planning.

CONTACTING MMRP FINANCIAL MANAGEMENT

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

*In this section, fiscal year 2016 represents nine months of financial activity for the nine months ending 9/30/16.

FINANCIAL SECTION

Basic Financial Statements

STATEMENT OF PENSION PLAN FIDUCIARY NET POSITION As of September 30, 2017 (in thousands)

	<u>Pension Plan</u>
Assets:	
Equity in common cash	<u>\$ 12</u>
Receivables:	
Amounts due from members	<u>5</u>
Total Receivables	<u>6</u>
Investments:	
Short term investment pools	185
Fixed income pools	546
Domestic equity pools	1,135
Real estate and infrastructure pools	419
Private equity pools	705
International equity pools	824
Absolute return pools	<u>632</u>
Total investments	<u>4,446</u>
Securities lending collateral	<u>290</u>
Total assets	<u>4,754</u>
Liabilities:	
Accounts payable and other accrued liabilities	5
Amounts due to other funds	110
Obligations under securities lending	<u>290</u>
Total liabilities	<u>405</u>
Net Position Restricted for Pension Benefits:	<u>\$ 4,349</u>

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

FINANCIAL SECTION

Basic Financial Statements (Continued)

STATEMENT OF CHANGES IN PENSION PLAN FIDUCIARY NET POSITION

For Fiscal Year Ended September 30, 2017 (in thousands)

	<u>Pension Plan</u>
Additions:	
Contributions:	
Employer contributions:	\$ 5,245
Investment income (loss):	
Net increase (decrease) in fair value of investments	35
Interest, dividends, and other	44
Investment expenses:	
Other investment expenses	(2)
Securities lending activities:	
Securities lending income	3
Securities lending expenses	(2)
Net investment income (loss)	<u>78</u>
Miscellaneous income	<u>7</u>
Total additions	<u>5,329</u>
Deductions:	
Benefits paid to plan members and beneficiaries:	
- Retirement benefits	4,090
Administrative and other expenses	<u>482</u>
Total deductions	<u>4,571</u>
Net Increase (Decrease) in Net Position	758
Net Position Restricted for Pension Benefits:	
Beginning of Year	<u>3,591</u>
End of Year	<u>\$ 4,349</u>

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

NOTES TO BASIC FINANCIAL STATEMENTS

September 30, 2017

NOTE 1- PLAN DESCRIPTION

ORGANIZATION

The Michigan Military Retirement Provisions (MMRP) is a single employer, state-wide, defined benefit public employee retirement plan governed by the State of Michigan (State), created under Public Act 150 of 1967, as amended. Effective January 1, 2016, Executive Order 2015-13 signed by the Governor on October 27, 2015 established the State of Michigan Retirement Board. The executive order establishes the board's authority to promulgate or amend the provision of MMRP. The board shall administer MMRP in accordance with the State Employees' Retirement Act and all plan documents relating to the governance of the same. The board consists of nine members:

- The Attorney General
- The State Treasurer
- The Legislative Auditor General
- The State Personnel Director
- One member or retirant of the State Employees' Retirement System appointed by the Governor
- One member of the Judges' Retirement System appointed by the Governor
- One current or former officer or enlisted person in the Michigan military establishment who is a member or retirant under the Military Retirement Provisions appointed by the Governor
- One retirant member of the State Employees' Retirement System appointed by the Governor.
- One member of the general public appointed by the Governor.

MMRP's pension plan was established by the State to provide retirement, survivor and disability benefits to the State's National Guard members. MMRP is contained in a qualified pension trust fund under section 401(a) of the Internal Revenue Code.

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

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

MEMBERSHIP

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

Inactive plan members or their beneficiaries currently receiving benefits:	<u>4,325</u>
Inactive plan members entitled to but not yet receiving benefits:	<u>602</u>
Active plan members:	<u>10,144</u>
Total plan members	<u><u>15,071</u></u>

BENEFIT PROVISIONS

Introduction

Benefit provisions of the defined benefit pension plan are established by State statute, which may be amended. Public Act 150 of 1967, Michigan Military Act establishes eligibility and benefit provisions for the defined benefit pension plan.

Members are eligible to receive a monthly benefit when they meet certain age and service requirements. MMRP also provides duty disability, non-duty disability and survivor benefits.

There are two kinds of benefits paid to MMRP's membership depending on classification:

- 1) State of Michigan Military Officers: This group includes the adjutant general, assistant adjutant general(s) and special duty Officer(s) who are employees of the State of Michigan.
- 2) Former members of the Michigan National Guard (Army or Air Force) who have served in the State Defense Force and Michigan National Guard who are not State of Michigan Military Officers.

Eligibility

State of Michigan Military Officers can retire at age 55 with at least 20 years of services. The adjutant general and the assistant adjutant general(s) must serve four consecutive years of service as an adjutant general or assistant adjutant general. This requirement is waived if the service member is relieved due to a new governor assuming office. State of Michigan Military Officers may qualify for health benefits that are paid out of the Michigan State Employees Retirement System (MSERS).

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

Members of the Michigan National Guard who are not Michigan Military Officers can retire at age 60 with at least 20 years of service for members who began active service before June 30, 1967. Members who began active service after June 30, 1967, can retire at age 62 with at least 20 years of service.

Members who are age 55 and who have completed not less than 20 years of active service with the National Guard or State Defense Force, or both, may retire and receive retirement benefits under one or more of the following circumstances:

- Ineligibility, because of federal law or regulation, for further federal recognition in the person's current grade because of age or length of service, and termination of the person's commission or enlistment in the national guard of the United States
- Withdrawal of the person's federal recognition and termination of the person's commission or enlistment in the National Guard of the United States because of physical disqualification from further service.
- Separation from the National Guard or State Defense Force under an honorable circumstance.

Benefit Calculations

State of Michigan Military Officers receive an annual benefit of 2.5% of final compensation times total years of service. Final compensation is equal to the pay that an officer of like grade and total years of service would receive as indicated in appropriate federal regulations when they are retired or honorably relieved. The maximum annual benefit is 75% of final compensation. Retirement benefits will start on the date of retirement or honorable relief from duty. The spouse of a Michigan Military Officer who dies prior to retirement but after earning 15 years of special duty shall be paid a lifetime monthly benefit equal to 67% of the retired pay to which the member would have been authorized had the member retired on the day before death. Michigan Military Officers and their survivors receive annual benefit adjustments equal to the percentage by which federal military service benefits are increased.

Members of the Michigan National Guard who are not Michigan Military Officers receive \$600 per year. The benefit is payable for life. The surviving spouse of a member who dies after retiring or before becoming eligible for retirement shall receive a lifetime monthly benefit equal to a portion of the deceased person's benefit. If the member was active with at least 20 years of service before death, the spouse receives \$500 per year.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting and Presentation

MMRP became a qualified pension plan under trust effective January 1, 2016 in accordance with Executive Order 2015-13 and accordingly the accompanying financial statements and supporting schedules of financial activity for the fiscal year ended September 30, 2017. MMRP's financial statements are prepared using the accrual basis of accounting. Contributions from the State are recognized as revenue when due and payable. Benefits and refunds are recognized when due and payable in accordance with the terms of MMRP.

Governmental Accounting Standards Board (GASB) Statement No. 67 which was adopted during the year ended September 30, 2014, addresses accounting and financial reporting requirements for pension plans. The requirements for GASB Statement No. 67 require changes in presentation of the financial statements, notes to the financial statements, and required supplementary information. Significant changes include an actuarial calculation of total and net pension liability. It also includes comprehensive footnote disclosure regarding the pension liability, the sensitivity of the net pension liability to the discount rate, and increased investment activity disclosures. The implementation of GASB Statement No. 67 did not significantly impact the accounting for accounts receivable and investment balances. The total pension liability, determined in

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

accordance with GASB Statement No. 67, is presented in Note 4 and in the Required Supplementary Information on page 39.

Reserves

Reserve for Employer Contributions – All employer contributions are credited to this reserve. At September 30, 2017, the balance in this reserve was \$12.0 million.

Reserve for Retired Benefit Payments – This represents the reserves for payment of future retirement benefits to current retirees. Monthly benefits, which are paid to the retiree, reduce the reserve. At the end of each fiscal year, an amount determined by an annual actuarial valuation is transferred from the Reserve for Employer Contributions to this reserve to bring the reserve into balance with the actuarial present value of retirement allowances. At September 30, 2017, the balance in this reserve was \$(7.0) million.

Reserve for Undistributed Investment Income – The net investment earnings (losses) are recorded in this reserve. Interest as authorized by the board is transferred annually to the other reserves. Administrative expenses are paid from this reserve. At September 30, 2017, the balance in this reserve was \$(643) thousand.

Reporting Entity

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

Benefit Protection

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

Investments

Generally, investments are reported 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 5.

Investment Income

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

Costs of Administering MMRP

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

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

Property and Equipment

Office space is leased from the State on a year-to-year basis. Office equipment is capitalized if the value exceeds \$5,000. These assets are recorded at cost and are reported net of depreciation in the *Statement of Pension Plan Fiduciary Net Position*. Such assets are depreciated on a straight-line basis over 10 years. MMRP does not have equipment that falls within these parameters.

Related Party Transactions

Leases and Services – MMRP leases operating space and purchases certain administrative, data processing, and legal services from the State. The space and services are not otherwise available by competitive bid. The schedule below summarizes costs incurred by MMRP for such services.

	<u>2017</u>
Building Rentals	\$ 1,267
Technological Support	16,953
Attorney General	44,983
Personnel Services	170,249

Cash – At September 30, 2017, MMRP had \$12 thousand 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 (Losses) from these activities amounted to \$30,464 for the year ended September 30, 2017.

NOTE 3 – CONTRIBUTIONS

Contributions

The State contributes annually to MMRP, based on the actuarial required contributions to support retirement benefits, through appropriation from the state's general fund. Members do not pay contributions.

Employer contributions to MMRP are determined on an actuarial basis using the entry age normal actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated on a level basis over the service of the individual between entry age and assumed exit age. The portion of this cost allocated to the current valuation year is called the normal cost. The remainder is called the actuarial accrued liability. Normal cost is funded on a current basis.

MMRP is required to reconcile with actuarial requirements annually. Any funding excess or deficiency for pension benefits is smoothed over 5 years. One fifth (20%) of the funding excess or deficiency is included in each of the subsequent years' contribution, and is not recognized as a payable or receivable in the accounting records.

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 fair 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).

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

Net Pension Liability

Total Pension Liability	\$	49,298,946
Plan Fiduciary Net Position		4,349,059
Net Pension Liability	\$	<u>44,949,887</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		8.82%
Net Pension Liability as a percentage of Covered Payroll		9653%
Total Covered Payroll	\$	465,680 *

* Special duty officers only as of 9/30/16

Long-Term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of September 30, 2017, are summarized in the following table:

Asset Allocation

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return*</u>
Domestic Equity Pools	28.0 %	5.6 %
Private Equity Pools	18.0	8.7
International Equity Pools	16.0	7.2
Fixed Income Pools	10.5	(0.1)
Real Estate and Infrastructure Pools	10.0	4.2
Absolute Return Pools	15.5	5.0
Short-Term Investment Pools	2.0	(0.9)
TOTAL	<u>100.0 %</u>	

* Long-term rates of return are net of administrative expenses and 2.3% inflation.

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

Rate of Return

For the fiscal year ended September 30, 2017, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 1.36%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Discount Rate

A discount rate of 7.5% was used to measure the total pension liability. This discount rate was based on the long term expected rate of return on pension plan investments of 7.5%. The projection of cash flows used to determine this discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rates. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

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

As required by GASB Statement No. 67, the following presents the plan's net pension liability, calculated using a single discount rate of 7.5%, 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 6.5%	Current Discount Rate Assumption 7.5%	1% Increase 8.5%
\$50,296,059	\$44,949,887	\$40,487,640

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 date of September 30, 2016, and rolled-forward using generally accepted actuarial procedures.

Actuarial Valuations and Assumptions

Actuarial valuations for the pension plan 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 trends. Amounts determined regarding the funded status of the plan and the actuarially determined contributions (ADC) 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 Required Supplementary Information presents trend information about the amounts contributed to the plan by employers in comparison to the ADC, an amount that is actuarially determined in accordance with the parameters of GASB Statement No. 67 for pension contributions.

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.

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

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

Summary of Actuarial Assumptions

Valuation Date	September 30, 2016
Actuarial Cost Method	Entry Age, Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	20 years
Asset Valuation Method	N/A
Actuarial Assumptions:	
Inflation Rate	2.5%
Investment Rate of Return	7.5%
Projected Salary Increases	3.5%
Mortality:	RP-2000 Combined Healthy Life Mortality Table, adjusted for mortality improvements to 2030 using projection scale BB for males and adjusted for mortality improvements to 2015 using projection scale BB for females.
Notes:	Assumption changes as a result of an experience study for the periods 2007 through 2012 have been adopted by MMRP for use in the annual pension valuations beginning with the September 30, 2015 valuation.

NOTE 5 – INVESTMENTS

Investment Authority

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

Derivatives

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

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

The derivative fair values are reported on the Statement of Pension Plan Fiduciary Net Position as of September 30, 2017, in their respective investment pool's fair value. Derivative net increase and decrease are reported on the Statement of Changes in Pension Plan Fiduciary Net Position for fiscal year ended September 30, 2017, under "Investment income (loss)", in "Net increase (decrease) in fair value of

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

investments”. Bond interest, swap payments, and dividends are reported under “Investment income (loss)”, in “Interest, dividends, and other”.

Derivative Investment Table as of September 30, 2017 (In Thousands):

Investment and Investment Type	Percentage of Fair Value	Notional Value	Investments At Fair Value	Net Increase (Decrease) in Fair Value	Investment Income	Fair Value Subject to Credit Risk
U.S. Treasury Bond Future Contracts						
Fixed Income Investments	0.0%	\$ 1.9				
Option Contracts						
Equity Investments	0.1	1,600.1	\$ 5.9	\$ (0.1)		
Swap Agreements						
International Equity Investments	3.2	142.4	144.0	1.6		\$ 17.8
Swap Agreements						
Equity Investments	0.0	23.1	1.1	(1.1)	\$ 0.1	1.1

To diversify the trust funds’ portfolio, the State Treasurer has entered into international swap agreements with investment grade counterparties, which are tied to foreign stock market indices in approximately forty-six foreign countries. Generally, one quarter or less of the notional amount tied to foreign stock market indices is usually hedged against foreign currency fluctuations. The swap agreements provide that MMRP will pay quarterly over the term of the swap agreements, interest indexed to the three month London Inter-Bank Offer Rate (LIBOR), adjusted for an interest rate spread, on the notional amount stated in the agreements. International equity swap agreement maturity dates range from October 2017 to June 2018. The U.S. Domestic LIBOR based floating rate notes and other investments are held to correspond with the notional amount of the international swap agreements. The value of the international synthetic equity structures is a combination of the value of the swap agreements and the value of the notes and other investments. The book value represents the cost of the notes and other investments. The current value represents the current value of the notes and other investments and the change in the value of the underlying indices from the inception of the swap agreements. The current value is used as a representation of the fair value based on the intention to hold all swap agreements until maturity. At the maturity of the swap agreements, the trust funds will either receive the increase in the value of the equity indices from the level at the inception of the agreements, or pay the decrease in the value of the indices. The combined swap structure generally realizes gains and losses on a rolling basis.

Domestic equity swap agreements provide that MMRP will pay interest monthly, quarterly or annually over the term of the swap agreements, interest indexed to the LIBOR, adjusted for an interest rate spread, on the notional amount stated in the agreements. Domestic equity swap agreement maturity dates range from October 2017 to December 2017. Domestic equity swaps value is a combination of the value of the swap agreements and the value of short-term investments. Book value represents the cost of short-term and equity investments. Current value represents the fair value of the short-term investments and the change in the value of the underlying indices from the inception of the swap agreements. Domestic equity swaps’ increase (decrease) primarily reflects the net changes in the domestic indices and short-term investments.

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

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

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

To enhance returns while limiting downside risk, the State Treasurer traded equity options in single securities and on indices in the Large Cap Core, Large Cap Growth, Tactical Allocation, and Real Return Opportunistic Investment pools. Domestic equity options were used for the purpose of stock replacement, in conjunction with dividend stocks to drive excess returns over the S&P 500, and to provide added exposure to strong equity markets while limiting principal at risk. Put options are used to protect against large negative moves in market indices. The Real Opportunistic Investment Pool also used call options to achieve current income on single equity securities that were trading near their intrinsic value.

Securities Lending

MMRP, pursuant to a Securities Lending Authorization Agreement, has authorized State Street Bank and Trust Company ("State Street") to act as MMRP's agent in lending MMRP's securities to approved borrowers. State Street, as agent, enters into Securities Loan Agreements with borrowers.

During the fiscal year, State Street lent, on behalf of the State Treasurer, certain securities of MMRP held by State Street as custodian and received cash or other collateral including securities issued or guaranteed by the United States government. The types of securities lent were equity, and fixed income, which includes government and corporate bonds and notes. State Street does not have the ability to pledge or sell collateral securities delivered absent a borrower default. Borrowers were required to deliver collateral for each loan equal to at least 100% of the fair value of the loaned securities.

Pursuant to the Securities Lending Authorization Agreement, State Street had an obligation to indemnify MMRP in the event of default by a borrower. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year that resulted in a declaration or notice of default of the Borrower.

During the fiscal year, MMRP and the borrowers maintained the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment pool. As of September 30, 2017, such investment pool had an average duration of 339 days and an average weighted final maturity of 323 days for USD. Because the loans were terminable at will their duration did not generally match the duration of the investments made with cash collateral. On September 30, 2017, MMRP had no credit risk exposure to borrowers. The fair value of collateral held and the fair value (USD) of securities on loan for the client as of September 30, 2017, was \$289,825 and \$284,913 respectively.

Risk

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

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

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

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

as investments in the top four major grades, rated by two national rating services. At September 30, 2017, MMRP was in compliance with Public Act 314 and the Investment Policy Statement in all material aspects.

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

Rated Debt Investments
(in thousands)
As of September 30, 2017

<u>Investment Type</u>	<u>Fair Value</u>	<u>S&P</u>	<u>Fair Value</u>	<u>Moody's</u>
Short Term	\$ 200	A-1	\$ 200	P-1
Government Securities				
U.S. Agencies - Sponsored		AAA	28	Aaa
	28	AA		Aa
Corporate Bonds & Notes				
	15	AAA	27	Aaa
	21	AA	25	Aa
	46	A	61	A
	113	BBB	107	Baa
	24	BB	25	Ba
	20	B	26	B
	10	CCC	7	Caa
		CC	3	Ca
		C		C
	3	D		D
	86	NR	57	NR
International *				
	5	AAA	5	Aaa
	9	AA	9	Aa
	8	A	22	A
	47	BBB	34	Baa
	9	NR	9	NR
Securities Lending Collateral				
Short Term	33	A-1	33	P-1
	9	AA	-	Aa
	17	NR	17	NR
Corporate		AA	15	Aa
	27	A	21	A
		BB	203	Ba
	203	NR		NR
Mutual Funds	9	NR	9	NR
Total	<u>\$ 945</u>		<u>\$ 945</u>	

NR - not rated

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

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

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

Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government and are held by either the counterparty or the counterparty's trust department or agent, but not in the government name.

The State Treasurer does not have a policy for custodial credit risk. However, the State's custodial bank had a credit rating of A at September 30, 2017. As of September 30, 2017, no securities were exposed to custodial credit risk.

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

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

At September 30, 2017, there were no investments in any single issuer that accounted for more than 5% of MMRP's assets.

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

The State Treasurer's policy states that cash equivalents are invested in short-term fixed income securities with an average weighted maturity of less than one year to provide liquidity and safety of principal from capital market and default risk. At September 30, 2017, the fair value of MMRP's prime commercial paper was \$0.2 million with the weighted average maturity of 26 days.

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

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

**Debt Securities
(in thousands)
As of September 30, 2017**

	<u>Fair Value</u>	<u>Effective Duration in Years</u>
Government		
U. S. Treasury	\$ 138	4.9
U. S. Agencies - Backed	44	4.8
U. S. Agencies - Sponsored	28	3.8
Corporate	348	4.0
International*		
U.S. Treasury	40	3.8
Corporate	79	0.5
Total	<u>\$ 677</u>	

Debt securities are exclusive of securities lending collateral.

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

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

MMRP invests in various securities denominated in foreign currencies. Authorized global securities include equities, fixed income, mutual funds, real estate, and limited partnerships. These investments are limited to 30% of the total assets of MMRP with additional limits of not more than 5% of the outstanding global securities of any one issuer and no more than 5% of MMRP's assets in the global securities of any one issuer. In addition to these limits, the State Treasurer cannot acquire securities with companies that have active business operations in the state sponsors of terror as identified by the United States Secretary of State. At September 30, 2017, the total amount of foreign investment subject to foreign currency risk was \$0.9 million, which amounted to 20.2% of total investments (exclusive of securities lending collateral) of MMRP.

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

Foreign Currency Risk
(in thousands)
As of September 30, 2017

Region	Country	Currency	Equity Fair Value in U.S. \$	Fixed Income Fair Value in U.S. \$	International* & Absolute Return Fair Value in U.S. \$	Private Equity, Real Estate, & Infrastructure Fair Value in U.S. \$
<u>AMERICA</u>						
	Brazil	Real				\$ 2
	Canada	Dollar			\$ 7	2
	Mexico	Peso		\$ 1		20
<u>PACIFIC</u>						
	Australia	Dollar		1	4	
	Hong Kong	Dollar			6	
	India	Rupee				9
	Japan	Yen		1	15	
	Taiwan	New Dollar			1	
	China	Renminbi	\$ 2			9
	Singapore	Dollar			2	
<u>EUROPE</u>						
	Denmark	Krone			1	
	European Union	Euro	5	3	25	53
	Norway	Krone			1	
	U.K.	Sterling	5	1	32	4
	Sweden	Krona			2	
	Switzerland	Franc	1		9	
<u>MIDDLE EAST</u>						
	Israel	New Shekel			1	
<u>OTHER</u>						
	Various				557	111
	Total		\$ 15	\$ 10	\$ 664	\$ 211

*International includes derivatives whose fair value exposure to foreign currency risk is the next amount of unrealized gains and unrealized losses. Maturity dates on these investments range from October 2017 through September 2018, with an average maturity of 0.2 years.

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

FAIR VALUE MEASUREMENTS

MMRP categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Not all investments held by MMRP are recorded at fair value. GASB 72 allows for certain investments to be recorded at cost (or amortized cost or any other valuation method), and therefore, they are not presented in the fair value hierarchy table. Equity and fixed income securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Equity Swaps and Fixed Income securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique and other significant observable inputs. Equity and fixed income securities classified as Level 3 of the fair value hierarchy are valued using a third party data and reports that are unobservable. Securities reported at Net Asset Value (NAV) are valued using the most recent third party statement adjusted for cash flows as of September 30, 2017. 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 on the following page.

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. MMRP's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability.

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

	Balance at September 30, 2017	Fair Value Measurement Using		
		Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level:				
Total cash and cash Equivalents	\$ 1,312	\$ 1,312		
Equity				
Depository Receipts	7,760	7,760		
Warrants	1,269	1,266		\$ 3
Common Stocks	1,054,893	1,054,766		127
Preferred Stocks	180	180		
Commingled Funds, ETF's, and PTP's	623,648	623,648		
Options on Equity	5,156	5,156		
Real Estate Investment Trusts	56,341	56,341		
Options on Index	789	789		
Equity Swaps	16,941		\$ 14,362	2,579
Total Equity	1,766,978	1,749,906	14,362	2,710
Fixed Income				
Asset Backed	62,038		62,038	
Corporate Bonds	278,284		276,389	1,895
Commercial mortgage-backed	108,692		108,692	
Government Issues	190,649	177,754	12,442	453
US Agency Issues	26,279		26,279	
Commingled Funds, ETF's, and PTP's	7,279	7,279		
Futures on Fixed Income	1,915	1,915		
Total Fixed Income	675,136	186,948	485,841	2,348
Total investments by fair value level	\$ 2,443,427	\$ 1,938,167	\$ 500,203	\$ 5,058
Investments measured at the net asset value (NAV)				
Private Equity	676,402			
Real Estate & Infrastructure	407,317			
Absolute Return	246,048			
Real Return & Opportunistic	380,568			
Other Limited Partnerships	73,338			
Total investments measured at the NAV	1,783,672			
Total investments measured at fair value	\$ 4,227,099			

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

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

Private Equity funds

Total investments measured at the NAV	\$	676,402
Unfunded commitments		399,440

Private Equity funds include investments in approximately 233 partnerships that invest in leveraged buyouts, venture capital, mezzanine debt, distressed debt, secondary funds and other investments. These type of investments can never be redeemed with the funds, but distributions are received through the liquidation of the underlying assets of the fund. It's expected that the underlying assets of the fund are liquidated over a period of five to eight years. However, as of September 30, 2017, it is probable that all of the investments in this group will be sold at an amount different from the NAV per share (or its equivalent). Therefore, the fair values of the investments in this type have been determined using recent observable transaction information for similar investments and nonbinding bids received from potential buyers of the investments. As of September 30, 2017, a buyer for these investments has not been identified.

Real Estate and Infrastructure

Total investments measured at the NAV	\$	407,317
Unfunded commitments		98,441

Real Estate and Infrastructure funds include approximately 108 accounts (limited partnerships, limited liability companies, etc.) that invest in real estate or infrastructure related assets. The fair value of the Real Estate and Infrastructure funds have been determined in accordance with generally accepted accounting principles using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. These types of investments cannot be redeemed with the funds. Distributions from these funds will be received as the underlying investments are sold and liquidated over time. It is expected that the underlying assets will be sold over the next 5 – 15 years. However, buyers have not been determined so the fair value has been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital.

Absolute Return Portfolio

Total investments measured at the NAV	\$	246,048
Unfunded commitments		8,831

This type invests in hedge funds and hedge fund of funds that pursue multiple strategies to diversify risks and reduce volatility. The fair values of the investments in this type have been determined using the NAV per share

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

(or its equivalent) of the investments. For 93.9% of the investments, investors may redeem at various dates between January 1, 2018 and April 1, 2020. The remaining 6.10% is not redeemable on demand.

Real Return & Opportunistic Portfolio

Total investments measured at the NAV	\$	380,568
Unfunded commitments		222,856

This type includes 72 funds that invest in private credit, tangible and intangible real assets, or other real return and opportunistic strategies. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. These investments can never be redeemed with the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 5 to 10 years. This type also includes one fund that offers quarterly redemptions with 65 day notice.

All Other Investments

Total investments measured at the NAV	\$	73,338
Unfunded commitments		3,369

The balance of plan assets reported at fair value includes:

- A limited partnership (LP) that invests in the equity of Japanese companies. This LP permits partners to withdraw funds quarterly with 180 days of advanced notice.
- LPs that invest in senior secured debt financing of a third party investment fund. This investment cannot be redeemed by limited partners. The debt has a 10 year maturity, with partnership distributions to include principal as the loan collateral matures four years after the initial investment.
- A limited partnership permitting partners to redeem its debt securities quarterly with 60 days of advanced notice.

NOTE 6 – ACCOUNTING CHANGES

GASB issued Statement No. 82, *Pension Issues—an amendment of GASB Statements No. 67, No. 68 and No. 73*. 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 (member) contribution requirements. This statement was implemented in fiscal year 2017.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Under the Administrative Procedures Act, members may appeal a decision made by the Board. Once the administrative procedure has been exhausted, the decision may be appealed in Michigan's court system. Various cases that have exhausted the administrative procedures have been appealed in the court system.

FINANCIAL SECTION

NOTES TO BASIC FINANCIAL STATEMENTS (CONTINUED)

These cases are in the normal course of business and MMRP does not anticipate any material loss as a result of the contingent liabilities.

FINANCIAL SECTION

Required Supplementary Information

SCHEDULE OF CHANGES IN NET PENSION LIABILITY (in thousands)

	2017	Fiscal Year 2016	2015
Total Pension Liability			
Service Cost	\$ 110	\$ 403	\$ 357
Interest	3,609	2,829	3,564
Changes of benefit terms			
Differences between expected and actual experience	58		(17,548)
Changes of assumptions	2,505	(30,216)	7,086
Benefit payments, including refunds of member contributions	(4,090)	(3,950)	(3,923)
Net Change in Total Pension Liability	2,192	(30,933)	(10,463)
Total Pension Liability - Beginning	47,107	78,040	88,503
Total Pension Liability - Ending (a)	<u>\$ 49,299</u>	<u>\$ 47,107</u>	<u>\$ 78,040</u>
Plan Fiduciary Net Position			
Contributions - Employer	\$ 5,245	\$ 7,780	\$ 4,267
Contributions - Member			
Net Investment Income	78	12	
Benefit payments, including refunds of member contributions	(4,090)	(3,950)	(3,923)
Administrative and Other Expenses	(475)	(251)	(344)
Net Change in Plan Fiduciary Net Position	758	3,591	
Plan Fiduciary Net Position - Beginning	3,591		
Plan Fiduciary Net Position - Ending (b)	<u>\$ 4,349</u>	<u>\$ 3,591</u>	
Net Pension Liability - Ending (a) - (b)	<u>\$ 44,950</u>	<u>\$ 43,515</u>	<u>\$ 78,040</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	8.82%	7.62%	0.00%
Covered Payroll¹	\$ 466	\$ 469	\$ 484
Net Pension Liability as a Percentage of Covered Payroll	9,653 %	9,269 %	16,110 %

¹For special duty officers only

FINANCIAL SECTION

Required Supplementary Information (continued)

SCHEDULE OF CONTRIBUTIONS

Pension Benefits
(in thousands)

<u>Fiscal Year Ended Sept. 30</u>	<u>Actuarially Determined Contribution (ADC)</u>	<u>Actual Employer Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Actual Contribution as a % of Covered Payroll</u>
2015	\$ 6,293	\$ 4,267	\$ 2,026	\$ 484	881 %
2016	5,200	7,780	(2,580)	469	1,657
2017	5,200	5,245	(45)	466	1,126

SCHEDULE OF PENSION INVESTMENT RETURNS

<u>Fiscal Year</u>	<u>Annual Return¹</u>
2017	1.36 %

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

FINANCIAL SECTION

NOTE TO REQUIRED SUPPLEMENTARY INFORMATION

NOTE A – DESCRIPTION

Historical trend information designed to provide information about MMRP's progress made in accumulating sufficient assets to pay benefits when due is presented in the preceding schedules. This information is presented to enable the reader to assess the progress made by MMRP in accumulating sufficient assets to pay pension benefits as they become due.

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 obligations as a factor.

The Schedule of Contributions is reported as historical trend information. The Schedule of Contributions is presented to show the responsibility of the Employer in meeting the actuarial requirements to maintain MMRP on a sound financial basis.

The Schedule of Changes in Net Pension Liability, Schedule of Contributions, and Schedule of Pension Investment Returns are schedules that are required in implementing GASB Statement No. 67. These schedules are required to show information for ten years; additional years will be displayed as it becomes available. The Schedule of Changes in Net Pension Liability represents in actuarial terms, the accrued liability less the fair value of assets. The Schedule of Contributions is a comparison of the employer's contributions to the actuarially determined contributions. The Schedule of Pension Investment Returns represents the annual money-weighted rate of return, net of investment expenses.

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

Valuation:

Actuarially determined contribution amounts for fiscal year 2017 were calculated based upon the results of the September 30, 2013 actuarial valuation.

Methods and Assumptions Used to Determine Contributions for Fiscal Year 2017:

Actuarial Cost Method	Entry Age, Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	20 Years
Asset Valuation Method	N/A
Inflation	2.5%
Salary Increases	3.5% for Special Duty officers
Investment Rate of Return	8% net of investment and administrative expenses
Retirement Age	Experience-based table of rates that are specific to the type of eligibility conditions.
Mortality	RP-2000 Combined Healthy Life Mortality Table, adjusted for mortality improvements to 2020 using projection scale AA.

FINANCIAL SECTION

Supporting Schedules

SUMMARY SCHEDULE OF PENSION PLAN ADMINISTRATIVE AND OTHER EXPENSES

For Fiscal Year Ended September 30, 2017

Personnel Services:

Staff Salaries	\$ 161,074
Retirement and Social Security	6,715
Other Fringe Benefits	2,460
Total	<u>170,249</u>

Professional Services:

Actuarial	151,258
Attorney General	44,983
Audit	88,114
Consulting	4,706
Total	<u>289,061</u>

Building and Equipment:

Building Rentals	1,267
Equipment Purchase, Maintenance, and Rentals	64
Total	<u>1,330</u>

Miscellaneous:

Travel and Board Meetings	38
Office Supplies	44
Postage, Telephone, and Other	2,341
Printing	1,589
Technological Support	16,953
Total	<u>20,965</u>

Total Administrative and Other Expenses	<u>\$ 481,605</u>
--	-------------------

FINANCIAL SECTION

Supporting Schedules (Continued)

SCHEDULE OF INVESTMENT EXPENSES For Fiscal Year Ended September 30, 2017

Real Estate Operating Expenses	\$	0
Securities Lending Expenses		2,480
Other Investment Expenses ¹		
Custody Fees		9
Management Fees		2,103
Research Fees		20
		<hr/>
Total Investment Expenses	\$	4,612
		<hr/> <hr/>

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

SCHEDULE OF PAYMENTS FOR PROFESSIONAL SERVICES For Fiscal Year Ended September 30, 2017

Actuary	\$	151,258
Attorney General		44,983
Independent Auditors		88,114
Consulting		4,706
		<hr/>
Total Payments	\$	289,060
		<hr/> <hr/>

FINANCIAL SECTION

Supporting Schedules (Continued)

DETAIL OF CHANGES IN PLAN FIDUCIARY NET POSITION For Fiscal Year Ended September 30, 2017 (in thousands)

	Employer Contributions	Retired Benefit Payments	Undistributed Investment Income	Total
Additions:				
Contributions:				
Employer contributions:	\$ 5,245			\$ 5,245
Investment income (loss):				
Net increase (decrease) in fair value of investments			\$ 35	35
Interest, dividends, and other			44	44
Investment expenses:				
Other investment expenses			(2)	(2)
Securities lending activities:				
Securities lending income			3	3
Securities lending expenses			(2)	(2)
Net investment income (loss)	-	-	78	78
Miscellaneous income		\$ 7		7
Total additions	5,245	7	78	5,329
Deductions:				
Benefits paid to plan members and beneficiaries:				
Retirement benefits		4,090		4,090
Administrative and other expenses			482	482
Total deductions		4,090	482	4,571
Net Increase (Decrease) in Net Position	5,245	(4,083)	(404)	758
Net Position Restricted for Pension Benefits:				
Beginning of Year	6,790	(2,960)	(239)	3,591
End of Year	\$ 12,035	\$ (7,043)	\$ (643)	\$ 4,349

INVESTMENT SECTION

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

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

INVESTMENT SECTION

Report on Investment Activity

INTRODUCTION

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

The Investment Advisory Committee was created by Act 380 of the Public Acts of 1965. The three public members of the five-member committee are appointed by the Governor with the advice and consent of the Senate for three-year terms. The Director of the Department of Licensing and Regulatory Affairs and the Director of the Department of Technology, Management and Budget are ex-officio members. As of September 30, 2017, members of the Committee were as follows: James B. Nicholson (public member), L. Erik Lundberg, CFA (public member), Reginald G. Sanders, CFA, CAIA (public member), Shelly Edgerton (ex-officio member), and David L. DeVries (ex-officio member). The public members serve without pay, but may be paid actual and necessary travel and other expenses.

INVESTMENT POLICY & GOALS

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

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

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

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

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

INVESTMENT SECTION

Report on Investment Activity (Continued)

Asset Allocation

(Excludes Collateral on Loaned Securities)

<u>Investment Category</u>	<u>As of 9/30/17 Actual %</u>	<u>Five-Year Target %</u>
Domestic Equity Pools	25.5 %	28.0 %
International Equity Pools	18.5	16.0
Private Equity Pools	15.8	18.0
Real Estate and Infrastructure Pools	9.4	10.0
Fixed Income Pools	12.2	10.5
Absolute Return Pools	14.2	15.5
Short-Term Investment Pools	<u>4.4</u>	<u>2.0</u>
TOTAL	<u>100.0 %</u>	<u>100.0 %</u>

INVESTMENT AUTHORITY

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

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

The administrative statutory powers, duties, functions, and responsibilities concerning retirement allowances, pensions, and other retirement benefits under the Military Retirement act, were transferred to the State of Michigan Retirement Board by Executive order 2015-13, and by extension, the investment duties to the State Treasurer. MMRP is pooled and invested alongside the Michigan State Employees' pension fund.

INVESTMENT RESULTS

Total Portfolio Results

In November 2016, Donald Trump was elected as president of the United States. Despite conventional industry thinking leading up to the elections, risk markets immediately rallied as prospects for fiscal stimulus, tax cuts, and regulatory reforms leading to higher growth and inflation started to be fully considered. Likely just as important to the rally in risk assets, fundamentals globally were showing great improvements, and a realization that a true globally synchronized economic expansion was beginning to be realized.

On the back of the strength of the global economy, central banks began to lay out plans to reign in, albeit slowly, the unconventional accommodative policies adopted since the global financial crisis hit almost a decade prior. In the U.S., the Federal Reserve increased the benchmark rate three times by 25 basis points each. At the end of September 2017, the rate was between 1.0% and 1.25% which is nearly a full percent below inflation rate measured by the Consumer Price Index. Policies still have a long ways to go before they are at historical levels.

As of September 2017, the fiscal year ended on a high-note. The U.S. benchmark equity S&P 500 Index was at an all-time high. The international equity counterpart MSCI ACWI ex USA Index is at a nine year high. In

INVESTMENT SECTION

Report on Investment Activity (Continued)

the U.S., job vacancies are at the highest level since the year 2000. In Japan, there are the most jobs per applicant since 1974. In the U.K., the unemployment rate is the lowest since 1975.

Although the global economic fundamentals are good, there are geopolitical concerns. Tensions between the United States and North Korea have escalated. Despite warnings, North Korea continues its quest to develop and conduct tests on a nuclear arsenal. Russia and its involvement in U.S. politics, including the presidential election, is a source of concern as well.

Looking ahead, the strength of the global economy is likely to continue well into the next year. As of September 2017, most economists are projecting continued global growth. However, many of the stimulative policies hoped for at the end of 2016 have yet to materialize, or have been rejected outright. Although the strong returns for risk assets in 2017 were welcomed, there are concerns that these high prices could lead to below average future returns.

Investment return calculations are prepared using a Time-Weighted rate of return.

Domestic Equity Pools

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

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

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

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

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

INVESTMENT SECTION

Report on Investment Activity (Continued)

The following summarizes the weightings of the pools as of September 30, 2017:

Active	54.5 %
Passive	45.5
Total	<u>100.0 %</u>

Large-Cap	64.5 %
Multi-Cap	26.9
Mid-Cap	7.1
Small-Cap	1.5
Total	<u>100.0 %</u>

At the close of fiscal year 2017, the Domestic Equity pools represented 25.5% of total investments. The following summarizes MMRP's 0.01% ownership share of the Domestic Equity pools at September 30, 2017:

Domestic Equity Pools (in thousands)

Short-Term Pooled Investments	\$	21
Equities		1,115
Settlement Principal Payable		(2)
Accrued Dividends		1
Total	\$	<u>1,135</u>

International Equity Pools

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

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

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

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

Passive exposure to International Equity returns is achieved primarily by investing in a combination of fixed income LIBOR notes, short-term fixed income investments, and equity swap agreements on foreign stock indices in developed markets. Interest on the dedicated notes and short-term fixed income investments is

INVESTMENT SECTION

Report on Investment Activity (Continued)

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

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

The following summarizes the weightings of the pool as of September 30, 2017:

Active	48.9 %
Passive	51.1
Total	<u>100.0 %</u>

Developed	86.9 %
Emerging	13.1
Total	<u>100.0 %</u>

At the close of fiscal year 2017, the International Equity pools represented 18.5% of total investments. The following summarizes MMRP's 0.01% ownership share of the International Equity Pools at September 30, 2017:

International Equity Pools	
(in thousands)	
Short-Term Pooled Investments	\$ 7
Equities	680
Fixed Income Securities	119
Fair Value of Equity Contracts	18
Total	<u>\$ 824</u>

Private Equity Pools

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

INVESTMENT SECTION

Report on Investment Activity (Continued)

Private Equity Investments are investments in the private equity market, primarily through limited partnerships. The following summarizes the weightings of the pools as of September 30, 2017:

Buyout Funds	47.2 %
Special Situation Funds	16.8
Liquidation Portfolio	12.5
Venture Capital Funds	10.4
Fund of Funds	11.1
Mezzanine Funds	2.0
Total	<u>100.0 %</u>

At the close of fiscal year 2017, the Private Equity pools represented 15.8% of total investments. The following summarizes MMRP's 0.01% ownership share of the Private Equity pools at September 30, 2017:

Private Equity Pools (in thousands)

Short-Term Pooled Investments	\$	29
Equities		675
Long Term Obligations		1
Total	\$	<u>705</u>

Real Estate and Infrastructure Pools

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

The Real Estate and Infrastructure pools diversify its holdings by:

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

INVESTMENT SECTION

Report on Investment Activity (Continued)

- **Investment Type** – The pools are diversified by investment type as summarized below.

Multi-family apartments	32.0 %
Hotel	12.2
Commercial office buildings	17.3
Infrastructure	11.8
Industrial warehouse buildings	8.2
Retail shopping centers	4.8
For Rent Homes	5.1
For Sale Homes	5.7
Land	1.6
Short Term Investments	1.3
Total	<u>100.0 %</u>

At the close of fiscal year 2017, the Real Estate and Infrastructure pools represented 9.4% of total investments. The following summarizes MMRP's 0.01% ownership share of the Real Estate and Infrastructure pools at September 30, 2017:

Real Estate and Infrastructure Pools (in thousands)

Short-Term Pooled Investments	\$	5
Real Estate Equities		364
Infrastructure Equities		50
Total	\$	<u>419</u>

Fixed Income Pools

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

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

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

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

At the close of fiscal year 2017, the Fixed Income pools represented 12.2% of total investments. The following summarizes MMRP's 0.01% ownership share of the Fixed Income pools at September 30, 2017:

INVESTMENT SECTION

Report on Investment Activity (Continued)

Fixed Income Pools (in thousands)

Short-Term Pooled Investments	\$	1
Fixed Income Securities		543
Accrued interest		2
Total	\$	546

Absolute Return Pools

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

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

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

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

At the close of fiscal year 2017, the Absolute Return Pools represented 14.2% of total investments. The following summarizes MMRP's 0.01% ownership share of the Absolute Return Pools at September 30, 2017:

Absolute Return Pools (in thousands)

Short-Term Pooled Investments	\$	5
Equities		627
Total	\$	632

Short-Term Investment Pools

The objective of the Short Term Investment pools is to closely match the return performance of its benchmark, the 30 day Treasury bill.

Potential areas of investment are:

INVESTMENT SECTION

Report on Investment Activity (Continued)

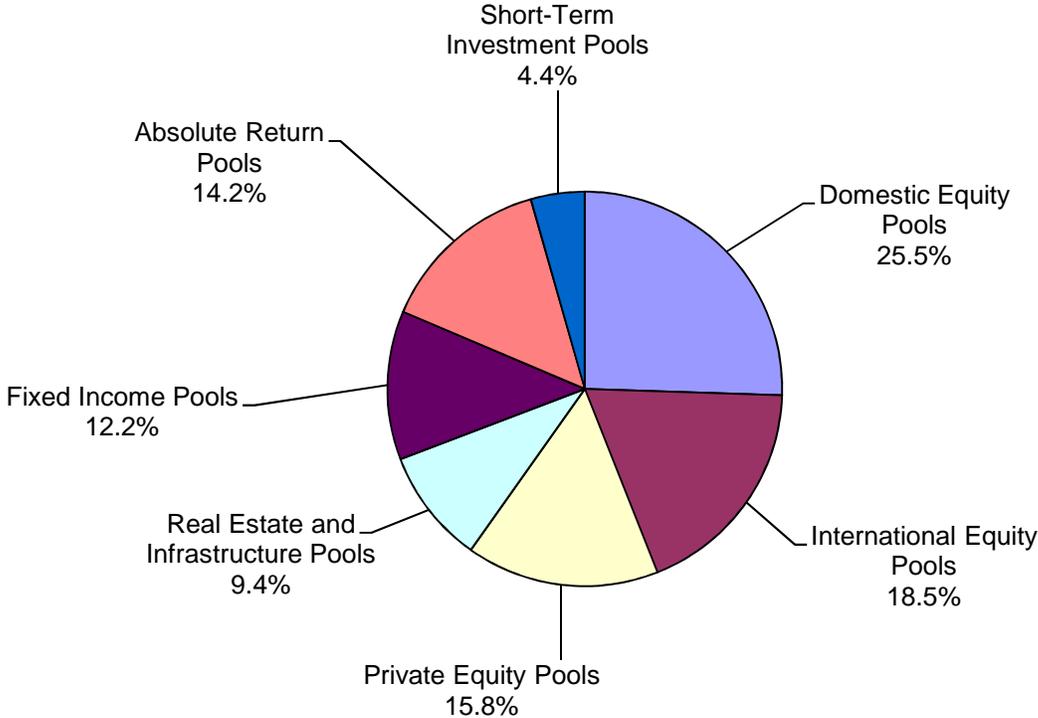
- Obligations of the United States or its agencies.
- Banker's acceptances, commercial accounts, certificates of deposit or depository receipts.
- Repurchase agreements for the purchase of securities issued by the US government or its agencies.
- Commercial paper rated at the time of purchase within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

At the close of fiscal year 2017, the Short Term Investment pools represented 4.4% of total investments. The following summarizes MMRP's 0.12% ownership share of the Short Term Investment pools at September 30, 2017:

Short-Term Investment Pools	
(in thousands)	
Short-Term Pooled Investments	\$ 132
Fixed Income Securities	65
Total	<u>\$ 197</u>

Report on Investment Activity (Continued)

ASSET ALLOCATION – SECURITY TYPE ONLY



INVESTMENT SECTION

Largest Assets Held¹

Largest Stock Holdings (By Fair Value) September 30, 2017

Rank	Shares	Stocks	Fair Value
1	182	Berkshire Hathaway Inc. CL B	\$ 33,443
2	214	Apple Inc.	33,037
3	496	Verizon Communications Inc.	24,546
4	269	Microsoft Corp.	20,044
5	112	Facebook Inc.	19,077
6	181	JP Morgan Chase & Co.	17,292
7	313	Wells Fargo & Co.	17,235
8	17	Alphabet Inc. CL A	16,531
9	180	Procter & Gamble Co.	16,418
10	199	Aflac Inc.	16,174

Largest Bond Holdings (By Fair Value)² September 30, 2017

Rank	Par Amount	Bonds & Notes	Fair Value
1	16,456	US Treasury N/B 2.25% Due 02/15/2027	\$ 16,356
2	13,212	TSY INFL IX N/B .125% Due 07/15/2026	12,847
3	12,001	US Treasury N/B 1.5% Due 05/15/2020	11,977
4	10,379	US Treasury N/B 1.875% Due 07/31/2022	10,357
5	7,762	US Treasury N/B 2.125% Due 05/15/2025	7,712
6	8,086	US Treasury N/B 1.625% Due 02/15/2026	7,688
7	6,623	Apple Inc. 2.444440% FRN Due 02/23/2021	6,826
8	6,623	Citigroup Inc. 2.712780% FRN Due 03/30/2021	6,786
9	6,623	US Treasury N/B 1.5% Due 08/15/2020	6,604
10	6,473	TSY INFL IX N/B 0.375% Due 07/15/2027	6,411

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

² Largest Bond Holdings are exclusive of securities lending collateral.

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

INVESTMENT SECTION

Schedule of Investment Fees

The State Treasurer is the investment fiduciary and custodian of MMRP's funds pursuant to State law. Outside advisors are utilized to augment the State Treasurer's internal staff. 61.87% of the total investment portfolio is managed by fully discretionary outside advisors. The Michigan Department of Treasury's cost of operations applicable to MMRP for the fiscal year amounted to \$0 or zero basis points (0.0%) of the fair value of the Assets under Management of the State Treasurer.

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

Schedule of Investment Fees

Investment Managers' Fees:

	Assets under Management (in thousands)	Fees (in thousands)	Basis Points*
State Treasurer	\$ 1,825		0.0
Outside Advisors for			
Fixed Income	251		0.0
Absolute Return	628		0.0
International Equity	676		0.0
Domestic Equity	282		0.0
Private Equity	705	\$ 1	14.2
Real Estate and Infrastructure	419		0.0
Total	\$ 4,786	\$ 1	

Other Investment Services Fees:

Assets in Custody	\$ 4,446
Securities on Loan	290

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

INVESTMENT SECTION

Schedule of Investment Commissions

Fiscal Year Ended September 30, 2017

	Actual Commissions Paid ¹	Actual Number of Shares Traded ¹	Average Commission Per Share	Estimated Trade Costs Per Share	Estimated Research Costs Per Share	Estimated Trade Costs	Estimated Research Costs
Investment Brokerage Firms:							
Barclays Capital Inc.		3	\$ 0.01	\$ 0.01			
BTIG LLC		24	0.01	0.01			
Capital Institutional Services Inc.		6	0.01	0.01			
Cowen & Company LLC		1	0.01	0.01			
Drexel Hamilton		1	0.01	0.01			
J. P. Morgan Securities Inc.		24		0.01			
MKM Partners		1	0.01	0.01			
Morgan Stanley & Co. Inc.		1	0.01	0.01			
Total		61	\$ 0.01 ²	\$ 0.01			

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

² The average commission per share for all brokerage firms.

INVESTMENT SECTION

Investment Summary

Fiscal Year Ended September 30, 2017

	<u>Fair Value</u> ¹	<u>Percent of Market Value</u>	<u>Investment & Interest Income</u> ²	<u>Percent of Total Investment & Interest Income</u>
Fixed Income Pools	\$ 546,071	12.2 %	\$ (534)	(0.6) %
Domestic Equity Pools	1,134,758	25.5	23,074	29.2
Real Estate and Infrastructure Pools	419,008	9.4	3,147	4.0
Private Equity Pools	704,929	15.8	6,090	7.7
International Equity Pools	824,482	18.5	13,602	17.2
Absolute Return Pools	632,053	14.2	2,927	3.7
Short Term Investment Pools ³	<u>197,199</u>	<u>4.4</u>	<u>30,655</u>	<u>38.8</u>
Total	<u><u>\$ 4,458,500</u></u>	<u><u>100.0 %</u></u>	<u><u>\$ 78,961</u></u>	<u><u>100.0 %</u></u>

¹ Fair value excludes \$289,825 in securities lending collateral for fiscal year 2017.

² Total Investment & Interest Income excludes net security lending income of \$807 and unrealized gain of \$163 for securities lending collateral.

³ Short term investment pools fair value includes \$12,028 of equity in common cash.

ACKNOWLEDGMENTS

The *Michigan Military Retirement Provisions Comprehensive Annual Financial Report* is prepared by Financial Services, Fiscal Management Division. Staff of the division for the fiscal year 2017 report included:

Management:

Jacqueline Huhn, Director
Aver Hamilton, Accounting Manager

Accountants:

Dan Harry
Erik Simmer
Paula Webb
Carol Wheaton

Technical and Support Staff:

Jamin Schroeder

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

This report may be viewed online at: www.michigan.gov/ors