

# MICHIGAN MILITARY RETIREMENT PROVISIONS

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**Annual Comprehensive Financial Report  
for the Fiscal Year Ended September 30, 2021**

## MMRP

A Fiduciary Component Unit of the State of Michigan

Prepared by:  
Financial Services  
For  
Office of Retirement Services  
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# INTRODUCTORY SECTION

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

# INTRODUCTORY SECTION

## CERTIFICATE OF ACHIEVEMENT

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Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

## **Michigan Military Retirement Provision**

For its Annual Comprehensive  
Financial Report  
For the Fiscal Year Ended

**September 30, 2020**

*Christopher P. Morill*

Executive Director/CEO

# INTRODUCTORY SECTION

## PUBLIC PENSION STANDARDS AWARD

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Public Pension Coordinating Council

***Public Pension Standards Award  
For Funding and Administration  
2021***

Presented to

**Michigan Office of Retirement Services**

In recognition of meeting professional standards for  
plan funding and administration as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle  
Program Administrator

# INTRODUCTORY SECTION

## LETTER OF TRANSMITTAL

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Michigan Military  
Retirement Provisions  
P.O. Box 30171  
Lansing, Michigan 48909-7671  
Telephone 517- 284-4400  
Outside Lansing 1-800-381-5111

### STATE OF MICHIGAN

GRETCHEN WHITMER, Governor

## DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET

January 11, 2022

The Honorable Gretchen Whitmer  
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 annual comprehensive financial report of Michigan Military Retirement Provisions (Provisions) for fiscal year 2021.

### INTRODUCTION TO REPORT

The Provisions 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 the Provisions is presented in Note 1 of the financial statements in the Financial Section in this report. The purpose of the Provisions is to provide benefits for all Michigan National Guard members and their beneficiaries. 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 the Provisions. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the Provisions.

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

The leadership team of the Provisions 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



# INTRODUCTORY SECTION

## LETTER OF TRANSMITTAL

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net position and related additions and deductions are presented in the Management Discussion and Analysis which can be found immediately following the Independent Auditor's Report.

### ***Independent Auditors and Actuary***

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

An actuarial valuation is conducted annually. The purpose of the valuation is to evaluate the mortality, service, compensation and other financial experience of the Provisions and to recommend employer contributions. The annual actuarial valuation was completed by Gabriel Roeder Smith & Company for the fiscal year ended September 30, 2020 and recommends the employer contribution for the fiscal year ended September 30, 2023. Actuarial certification and supporting statistics are included in the Actuarial section in 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 an MD&A. This letter of transmittal is intended to complement MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditor's Report.

## **PROFILE OF THE GOVERNMENT**

The Provisions were established by Public Act 150 of 1967. A 9-member board and the director of the Department of Technology, Management, and Budget (DTMB) govern the Provisions. 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 the Provisions as a qualified pension plan under section 401 of the Internal Revenue Code. The Provisions 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. The Provisions serves over 16,000 members. Financing comes from investment earnings and legislative appropriation. A detailed plan description is included in Note 1 of the Financial Section in this report.

## **ECONOMIC CONDITIONS AND OUTLOOK**

Since oversight of the Provisions was transferred to ORS in 2015, best practices for contributions and investments have been applied. Despite a long-term mix of both challenging and robust economic times, the Provisions continues to show steady performance.

### ***Investments***

The State of Michigan Investment Board is the investment fiduciary and custodian of all investments of the Provisions 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 rate of return. The investment activity for the year produced a total rate of return on the portfolio of 27.3 percent for the Provisions. A summary of asset allocation and rates of return is presented in the Investment Section in this report.

### ***Accounting System***

Transactions of the Provisions 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 the Provisions provide reasonable assurance the Provisions 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 fiduciary net position over deductions from plan fiduciary net position. Funds are accumulated by the Provisions 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

# INTRODUCTORY SECTION

## LETTER OF TRANSMITTAL

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the “funded ratio.” This ratio provides an indication of the funding status of the Provisions and generally, the greater this percentage, the stronger the Provisions.

**Pension** – Prefunding for pension benefits began in fiscal year 2016. The actuarial value of the assets and actuarial accrued liability for pension benefits of the Provisions were \$56.8 million and \$59.2 million, respectively, resulting in a funded ratio of 96.0 percent on September 30, 2020. A historical perspective of funding levels for the Pension Plan is presented on the Schedule of Funding Progress in the Actuarial section in this report.

### MAJOR GOALS ACCOMPLISHED

**Newsletters shift to quarterly publications** - Beginning in March 2021, both the *Connections* and *Proactive* newsletters — for our retired and active customers, respectively — changed from biannual to quarterly publications. The printed *Connections* newsletter also went entirely digital. (The *Proactive* newsletter was already digital.) We doubled our efforts to deliver more timely and relevant information in a predictable format, maintaining a digital presence through the pandemic and beyond. Historically the printed *Connections* newsletter required preparations months in advance, which was a limiting factor in the production process. We also will save over \$30,000 a year in printing costs by moving *Connections* to digital delivery.

**Infographics share remote work successes** - As we adapted to remote work, ORS staff found new ways to engage customers and keep our work visible. Over the course of a year, leaders of each process reported notable work that was completed in their area each month. These reports were then converted into infographics representing the accomplishments of the business processes and shared regularly on our Facebook page. These posts were consistently among the top five in engagement for every month of the campaign.

**Regular one-on-one meetings sustain relationships, performance** - One-on-one meetings between leaders and their direct reports have been a standard practice for several years at ORS. But with the disruption and isolation of remote work, these no-less-than-biweekly meetings have proved vital to build and maintain positive relationships, foster effective communication, and support performance management. Every leader is expected to establish one-on-one meetings with each of their direct reports and to adhere to specific outcomes.

**Leadership fosters open communication with town halls, blogs, videos** - Over the past year, we have normalized more frequent communications from our leadership team to staff. In addition to the biweekly blogs produced by ORS Director Anthony Estell, the ORS division directors and senior executive assistant began producing biweekly videos for staff. The result is a weekly cadence of leadership communication. Additionally, we have continued quarterly town hall events that have been heavily dedicated to recognition, significant updates from leadership, and leadership fielding questions and answers from staff. These have all proved beneficial in maintaining an executive presence and being open and transparent with timely communications.

**ORS exploring different approach to IT development** - In fall 2021, we began exploring a new method to develop technical solutions for the business with our partners in the DTMB Application Support Team. Historically, ORS has used a waterfall approach to IT projects which involves fully developing a product before delivery. Value is gained upon project completion, not during development and testing. This pivot in practice adopts an iterative approach, reducing the cycle from development to market. The time savings comes from first delivering simple, viable products and adding features and complexity in subsequent releases. ORS has already completed one release using this methodology. The new approach also introduced ORS to Azure DevOps software for planning and organizing the related business activities.

**ORS reaches new milestone for monthly pension payments** - This July, for the first time in ORS' history, we issued over 300,000 pension payments in a single month. The new milestone was confirmed after the monthly pension payroll processed in mid-July for all retirement systems administered by ORS.

### HONORS

**Public Pension Standards Award** – ORS was awarded the 2021 Standards Award from the Public Pension Coordinating Councils Standards Program (PPCC) for both funding and administration. ORS has received these awards every year since 2004. The PPCC Standards reflect expectations for public retirement system management and administration and serve as a benchmark for all DB public plans to be measured.

**Government Finance Officers Association Award** – The Government Finance Officers Association (GFOA) of the United States and Canada awarded the retirement system with the Certificate of Achievement for Excellence in

# INTRODUCTORY SECTION

## LETTER OF TRANSMITTAL

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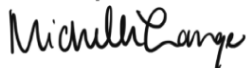
Financial Reporting for our fiscal year 2020 Annual Comprehensive Financial Report (ACFR). This marks the 3rd consecutive year ORS has received this prestigious award.

### ACKNOWLEDGEMENTS

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

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 the Provisions. Their cooperation contributes significantly to the success of the Provisions.

Sincerely,



Michelle Lange, Acting Director  
Department of Technology, Management & Budget



Anthony J. Estell, Director  
Office of Retirement Services

# INTRODUCTORY SECTION

## ADMINISTRATIVE ORGANIZATION

### RETIREMENT BOARD MEMBERS\*

As of January 11, 2022

Phil Thompson  
General Public  
Term Expires Dec. 31, 2023

Ann Marie Storberg  
Ex-officio Member Representing  
State Treasurer

David A. Berridge, Chair  
Active State Employee  
Term Expires Dec. 31, 2024

John Gnodtke  
Ex-officio Member Representing  
State Personnel Director

Lauri Schmidt, Vice Chair  
Retired State Employee  
Term Expires Dec. 31, 2023

Lisa Geminick  
Ex-officio Member Representing  
Attorney General

Craig Murray  
Ex-officio Member Representing  
Auditor General

Judge Leo Bowman  
Active Judge  
Term Expires Dec. 31, 2025

Col. Felipe Torres  
Michigan National Guard  
Term Expires Dec. 31, 2022

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

### ADVISORS AND CONSULTANTS

As of January 11, 2022

#### 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

Rachael Eubanks  
State Treasurer  
State of Michigan

#### Legal Advisor

Dana Nessel  
Attorney General  
State of Michigan

#### Investment Performance Measurement

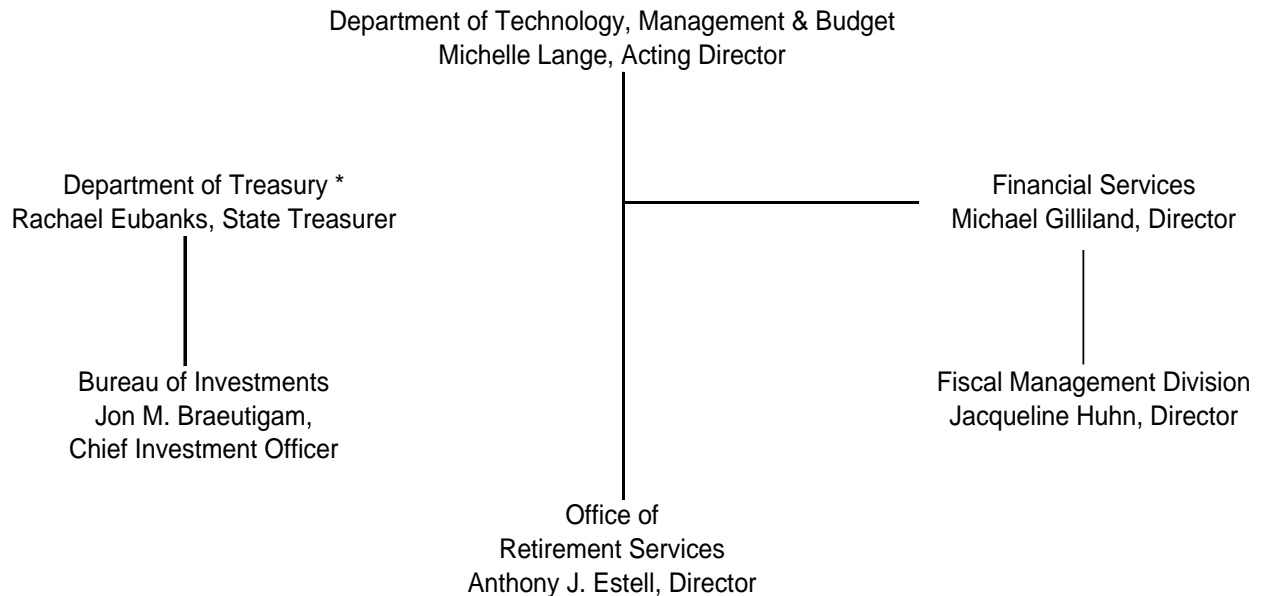
State Street Corporation  
State Street Investment Analytics  
Boston, MA

# INTRODUCTORY SECTION

## ADMINISTRATIVE ORGANIZATION

### ORGANIZATION CHART

As of January 11, 2022



\* 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 (page 55) and Schedule of Investment Commissions (page 56) for information regarding the investment fees and commissions paid as well as investment professionals utilized by MMRP.

# INTRODUCTORY SECTION

## ADMINISTRATIVE ORGANIZATION

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# FINANCIAL SECTION

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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*

Mr. David A. Berridge, Chair  
State of Michigan Retirement Board  
and  
Ms. Michelle Lange, Acting Director  
Department of Technology, Management, and Budget  
and  
Mr. Anthony J. Estell, Director  
Office of Retirement Services

Dear Mr. Berridge, Ms. Lange, and Mr. Estell:

**Report on the Financial Statements**

We have audited the accompanying financial statements of the Michigan Military Retirement Provisions (MMRP) a fiduciary component unit of the State of Michigan, as of and for the fiscal year ended September 30, 2021 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 the Michigan Military Retirement Provisions as of September 30, 2021 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, the Michigan Military Retirement Provisions adopted Governmental Accounting Standards Board Statement No. 84, *Fiduciary Activities*, for the fiscal year ended September 30, 2021. Our opinion is not modified with respect to the matter.





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

### *Other Information*

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

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

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

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

In accordance with *Government Auditing Standards*, we will also issue a report on our consideration of 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,

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

Doug Ringler  
Auditor General  
January 11, 2022

# FINANCIAL SECTION

## MANAGEMENT'S DISCUSSION AND ANALYSIS

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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 is 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's financial performance provides an overview of MMRP's financial activities for the fiscal year ended September 30, 2021. 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 2021 by \$67.6 million (reported as *net position restricted for Pension Benefits*). Fiduciary net position is restricted for pension benefits to meet future benefit payments.
- Additions for the year were \$15.7 million, which are comprised primarily of net investment income.
- Deductions slightly increased over the prior year from \$4.2 million to \$4.2 million or 0.9%.

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

This Annual Comprehensive Financial Report (ACFR) consists of two financial statements; *The Statement of Pension Plan Fiduciary Net Position* (page 18) and *The Statement of Changes in Pension Plan Fiduciary Net Position* (page 19). 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 the 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 37) and Schedule of Contributions (page 38) to determine whether MMRP is becoming financially stronger or weaker.

### FINANCIAL ANALYSIS

MMRP total assets as of September 30, 2021, were \$69.8 million and were mostly comprised of investments. Total assets increased \$11.6 million or 19.9% between fiscal years 2020 and 2021 primarily due to investment gains.

Total liabilities as of September 30, 2021, were \$2.2 million and were comprised of accounts payables and obligations under securities lending. Total liabilities increased \$143.3 thousand or 7.0% between fiscal years 2020 and 2021 due primarily to an increase in obligations under securities lending.

MMRP assets exceeded its liabilities at the close of fiscal year 2021 by \$67.6 million. Total net position restricted for pension increased \$11.4 million or 20.4% between fiscal years 2020 and 2021 due primarily to investment gains.

# FINANCIAL SECTION

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### PLAN FIDUCIARY NET POSITION

(in thousands)

	<u>2021</u>	<u>2020</u>	<u>Increase (Decrease)</u>
<b>Assets</b>			
Equity in common cash	\$ 865	\$ 1,548	(44.1) %
Receivables	3	1	97.3
Investments	66,774	54,653	22.2
Securities lending collateral	2,203	2,060	7.0
<b>Total assets</b>	<u>69,845</u>	<u>58,262</u>	<u>19.9</u>
<b>Liabilities</b>			
Accounts payable and other accrued liabilities	1	1	(24.1)
Obligations under securities lending	2,203	2,060	7.0
<b>Total liabilities</b>	<u>2,204</u>	<u>2,061</u>	<u>7.0</u>
<b>Net Position Restricted for Pension Benefits</b>	<u>\$ 67,641</u>	<u>\$ 56,201</u>	<u>20.4 %</u>

### ADDITIONS TO PLAN FIDUCIARY NET POSITION

The reserves needed to finance pension benefits are accumulated through the employer contributions from the State of Michigan General Fund. Contributions and net investment income for fiscal year ending September 30, 2021 totaled \$15.7 million. Total additions for fiscal year 2021 increased \$11.9 million or 311.7% from those of fiscal year 2020 due primarily from investments.

### 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, 2021 were \$4.2 million, an increase of 0.9% from fiscal year 2020 deductions.

The payment of pension benefits increased by \$40.2 thousand or 1.0% between fiscal years 2020 and 2021. Administrative and other expenses decreased by \$2.6 thousand or 1.3% from \$203.0 thousand to \$200.4 thousand between fiscal years 2020 and 2021. Administrative expenses decreased due to a decrease of professional services.

# FINANCIAL SECTION

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### CHANGES IN PLAN FIDUCIARY NET POSITION

(in thousands)

	<u>2021</u>	<u>2020</u>	<u>Increase (Decrease)</u>
<b>Additions</b>			
Employer contributions	\$ 657	\$ 1,000	(34.3) %
Net investment income (loss)	15,012	2,805	435.2
Miscellaneous income	-	1	(30.6)
<b>Total additions</b>	<u>15,670</u>	<u>3,806</u>	<u>311.7</u>
<b>Deductions</b>			
Pension benefits	4,029	3,989	1.0
Administrative and other expenses	200	203	(1.3)
<b>Total deductions</b>	<u>4,230</u>	<u>4,192</u>	<u>0.9</u>
<b>Net Increase (Decrease) in Net Position</b>	11,440	(387)	3,059.2
<b>Net Position Restricted for Pension Benefits:</b>			
Beginning of Year	56,201	56,588	(0.7)
End of Year	<u>\$ 67,641</u>	<u>\$ 56,201</u>	<u>20.4 %</u>

### MMRP AS A WHOLE

MMRP's overall Fiduciary Net Position experienced an increase in 2021. MMRP's rate of return for the Pension Plan's investments in fiscal year 2021 was 27.3%. 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.

# FINANCIAL SECTION

## MANAGEMENT'S DISCUSSION AND ANALYSIS

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# FINANCIAL SECTION

## BASIC FINANCIAL STATEMENTS

### STATEMENT OF PENSION PLAN FIDUCIARY NET POSITION

As of September 30, 2021  
(in thousands)

	<b>Pension Plan</b>
<b>Assets:</b>	
Equity in common cash	\$ 865
Receivables:	
Amounts due from members	2
Interest and dividends	1
Total receivables	3
Investments:	
Short term investment pools	1,768
Fixed income pools	6,714
Domestic equity pools	15,466
Real estate and infrastructure pools	4,626
Private equity pools	15,694
International equity pools	10,908
Absolute return pools	3,485
Real return and opportunistic pools	8,113
Total investments	66,774
Securities lending collateral	2,203
<b>Total assets</b>	<b>69,845</b>
<b>Liabilities:</b>	
Accounts payable and other accrued liabilities	1
Obligations under securities lending	2,203
<b>Total liabilities</b>	<b>2,204</b>
<b>Net Position Restricted for Pension Benefits:</b>	<b>\$ 67,641</b>

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

# FINANCIAL SECTION

## BASIC FINANCIAL STATEMENTS

### STATEMENT OF CHANGES IN PENSION PLAN FIDUCIARY NET POSITION

For Fiscal Year Ended September 30, 2021  
(in thousands)

	<u>Pension Plan</u>
<b>Additions:</b>	
Contributions:	
Employer contributions	\$ 657
Investment income (loss):	
Net increase (decrease) in fair value of investments	14,016
Interest, dividends, and other	1,266
Investment expenses:	
Other investment expenses	(278)
Securities lending activities:	
Securities lending income	10
Securities lending expenses	(3)
Net investment income (loss)	<u>15,012</u>
<b>Total additions</b>	<u>15,670</u>
<b>Deductions:</b>	
Benefits paid to plan members and beneficiaries:	
Retirement benefits	4,029
Administrative and other expenses	<u>200</u>
<b>Total deductions</b>	<u>4,230</u>
<b>Net Increase (Decrease) in Net Position</b>	11,440
<b>Net Position Restricted for Pension Benefits:</b>	
Beginning of Year	<u>56,201</u>
End of Year	<u>\$ 67,641</u>

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

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

### NOTE 1 – PLAN DESCRIPTION

#### ORGANIZATION

The Michigan Military Retirement Provisions (MMRP) is a single employer, state-wide, defined benefit public employee retirement plan and a fiduciary component unit of the State of Michigan (State), 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 or retirant 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, and survivor 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 included in the pension and other employee trust fund financial statements in the State of Michigan Annual Comprehensive Financial Report.

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 of Michigan Investment Board serves as the investment fiduciary and custodian for MMRP.

#### MEMBERSHIP

At September 30, 2021, MMRP's pension plan membership consisted of the following:

Inactive plan members or their beneficiaries currently receiving benefits:	<u>4,604</u>
Inactive plan members entitled to but not yet receiving benefits:	<u>1,110</u>
Active plan members:	<u>11,102</u>
<b>Total plan members</b>	<b><u><u>16,816</u></u></b>

#### BENEFIT PROVISIONS

##### *Introduction*

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



# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

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

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

- 1) Special duty officers: This group includes the adjutant general, and two assistant adjutants general 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 special duty officers.

### ***Pension Reform 2018***

On December 18, 2018 the Governor signed Public Act 378 into law. The new law updated the pension benefit calculation for special duty officers which is described in the benefit calculations section of this note.

### ***Eligibility***

Special duty officers can retire at age 55 with at least 20 years of service. The adjutant general and the assistant adjutant(s) general 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). Only one adjutant general and two assistant adjutants general are eligible for retirement in any 4-year period. If an adjutant general or assistant adjutant general is mobilized pursuant to federal mobilization, and the governor appoints a replacement adjutant general or assistant adjutant general, the replacement general is eligible for retirement upon satisfying eligibility criteria.

Members of the Michigan National Guard who are not special duty 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***

Special duty officers receive an annual benefit of 45% of final compensation. 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. Retirement benefits will start on the date of retirement or honorable relief from duty. The surviving spouse of a special duty officer who dies after retirement shall receive a lifetime survivor benefit equal to 50% of the retirement pay of the officer. The surviving spouse of a special duty 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. Special duty officers who retired before December 18, 2018, 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 special duty officers receive \$600 per year. The benefit is payable for life. The surviving spouse of a member who dies after retiring or before becoming age eligible for retirement shall receive a lifetime benefit of \$500 per year.

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

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### NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### BASIS OF ACCOUNTING AND PRESENTATION

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. The reserves are described below, and details are provided in the supporting schedules.

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 accordance with GASB Statement No. 67, is presented in Note 4 on page 24 and in the Required Supplementary Information beginning on page 38.

As of September 30, 2017, MMRP applies GASB Statement No. 72, *Fair Value Measurement and Application*. GASB Statement No. 72 provides guidance for determining a fair value measurement for reporting purposes and applying fair value to certain investments and disclosures related to all fair value measurements.

#### RESERVES

##### ***Reserve for Employer Contributions***

All employer contributions are credited to this reserve. At September 30, 2021, the balance in this reserve was \$19.2 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, 2021, the balance in this reserve was \$40.7 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, 2021, the balance in this reserve was \$7.8 million.

#### REPORTING ENTITY

MMRP is a pension trust fund of the State. As such, MMRP is a fiduciary component of the State of Michigan and its financial statements are included as a pension and other employee benefit trust fund in the State's Annual Comprehensive Financial Report. 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.

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

### 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 are recognized on the accrual basis. Fair value changes are recorded as investment income or loss. Purchases and sales of investments are recorded as of the trade date (the date upon which the transaction is initiated), except for purchase and sale of mortgages, real estate, and 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.

### 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.

	<b>2021</b>
Building Rentals	\$ 1,362
Technological Support	16,204
Attorney General	11,580
Investment Services	12,559
Personnel Services	81,231

#### *Cash*

At September 30, 2021, MMRP had \$865 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 \$584 for the year ended September 30, 2021.

### NOTE 3 – 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 normal cost is the annual cost assigned, under the actuarial funding method, to the current and

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

subsequent plan years. The remainder is called the actuarial accrued liability. Normal cost is funded on a current basis.

Pension contributions made in the fiscal year ending September 30, 2021, were determined as of the September 30, 2018 actuarial valuation. The pension unfunded (overfunded) actuarial accrued liability as of September 30, 2018, is amortized over a 18-year period beginning October 1, 2020 and ending September 30, 2038.

### 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).

#### Net Pension Liability

Total Pension Liability	\$	59,795,772
Plan Fiduciary Net Position		67,640,742
Net Pension Liability	\$	<u>(7,844,970)</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		113.12%
Net Pension Liability as a Percentage of Covered Payroll		(1494)%
Total Covered Payroll	\$	524,953

\* Special duty officers only, as of 9/30/21

#### 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 administrative and investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

Best estimates of arithmetic real rates of return were provided by the Bureau of Investments (BOI) for each major asset class included in the pension plan's portfolio as of September 30, 2021. These best estimates and the plan's target asset allocation 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	25.0%	5.4%
Private Equity Pools	16.0	9.1
International Equity Pools	15.0	7.5
Fixed Income Pools	10.5	(0.7)
Real Estate and Infrastructure Pools	10.0	5.4
Absolute Return Pools	9.0	2.6
Real Return and Opportunistic Pools	12.5	6.1
Short-Term Investment Pools	2.0	(1.3)
<b>TOTAL</b>	<b>100.0 %</b>	

\* Long-term rates of return are net of administrative expenses and 2.0% inflation.

### RATE OF RETURN

For the fiscal year ended September 30, 2021, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 23.63%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### DISCOUNT RATE

The State of Michigan Retirement Board adopted a Dedicated Gains Policy to lower the discount rate in years where investment returns exceed the current assumption. A single discount rate of 6.75% was used to measure the total pension liability for fiscal year 2021. In fiscal year 2020, the single discount rate used to measure the total pension liability was 6.75%. This single discount rate was based on the expected rate of return on pension plan investments of 6.75%. The projection of cash flows used to determine this single discount rate was based on the assumption that in the future, plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

### SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

As required by GASB Statement No. 67, we determined the sensitivity of the net pension liability to changes in the single discount rate. The following table presents the plan's net pension liability, calculated using a single discount rate of 6.75%, 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:

<u>1% Decrease</u> 5.75%	<u>Current Discount Rate Assumption</u> 6.75%	<u>1% Increase</u> 7.75%
<u>\$(959,747)</u>	<u>\$(7,844,970)</u>	<u>\$(13,525,568)</u>

# FINANCIAL SECTION

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## NOTES TO BASIC FINANCIAL STATEMENTS

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### **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, 2021, is based on the results of an actuarial valuation date of September 30, 2020, 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

The information presented in the net pension liability 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, 2020
Actuarial Cost Method	Entry Age, Normal
Asset Valuation Method	Fair Value
Actuarial Assumptions:	
Wage Inflation Rate	2.75%
Investment Rate of Return	6.75%, net of investment expenses
Projected Salary Increases <sup>1</sup>	2.75%, including wage inflation at 2.75%
Cost-of-Living Pension Adjustments <sup>1</sup>	Assumed 2.75% compounded for those eligible
Mortality	
Retirees	RP-2014 Male and Female Healthy Annuitant Mortality Table scaled by 93% for males and 99% for females and adjusted for mortality improvements using projection scale MP-2017 from 2006.
Active	RP-2014 Male and Female Employee Mortality Table scaled by 100% for both males and females and adjusted for mortality improvements using projection scale MP-2017 from 2006.
Notes	Assumption changes as a result of an experience study for the periods 2015 through 2017 have been adopted by MMRP for use in the determination of the total pension liability beginning with the September 30, 2018 Annual Comprehensive Financial Report.

<sup>1</sup> Post-retirement cost of living adjustments and pay increase assumptions apply to Special Duty Officers only.

### **NOTE 5 – INVESTMENTS**

#### **INVESTMENT AUTHORITY**

The State of Michigan Investment Board (Board) was created by Executive Order 2018-10 (Order) and serves as the investment fiduciary over the assets of the State sponsored defined benefit retirement systems. The Board is responsible for investing the System's assets in accordance with the duties and powers enumerated in the Order and with Public Act 380 of 1965, as amended. 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.

#### **DERIVATIVE INSTRUMENTS**

The Board employs the use of derivative instruments in the investment of the pension (and other employee benefit) trust funds (the trust funds).

Derivative instruments are used in managing the trust fund portfolios, but uses do not include speculation or leverage of investments. State investment statutes limit total derivative instrument 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 instrument 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 instrument exposure limitation. Less than 15% of the total trust funds' portfolio

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

has been invested from time to time in future contracts, swap agreements, structured notes, option and forward contracts.

The derivative instrument fair values are reported on the Statement of Pension Plan Fiduciary Net Position as of September 30, 2021, in their respective investment pool's fair value. Derivative instrument net increase and decrease are reported on the Statement of Changes in Pension Plan Fiduciary Net Position for fiscal year ended September 30, 2021, under "Investment income (loss)", in "Net increase (decrease) in fair value of investments". Bond interest, swap payments, and dividends are reported under "Investment income (loss)", in "Interest, dividends, and other".

Derivative Instrument Investment Table as of September 30, 2021 (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
Future Contracts	- %	\$ (439.4)	\$ -	20.1	\$ -	-
Fixed Income and International Equity Investments						
Option Contracts	0.3	21,049.3	219.1	254.2	-	-
Equity, Fixed Income, and International Equity Investments						
Swap Agreements	2.5	2,763.3	1,671.7	839.7	(1.8)	221.8
Fixed Income and International Equity Investments						
<b>Total</b>		<b>\$ 23,373.2</b>	<b>\$ 1,891.0</b>	<b>\$ 1,114.0</b>	<b>\$ (1.8)</b>	<b>\$ 221.8</b>

To diversify the trust funds' portfolio, the Board 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, the notional amount of equity swap tied to foreign stock market indices is executed via a net total return USD index. 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) or U.S. Federal Funds Rate, adjusted for an interest rate spread, on the notional amount stated in the agreements. International equity swap agreement maturity dates range from October 2021 to October 2022. U.S. Treasury Bonds, U.S. Corporate Bonds and other public market fixed income securities, as well as, 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 bonds, notes and other investments. The current value represents the current value of the bonds, 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.

To reduce the risk in the Fixed Income and International Equity portfolios, the Board has entered into FX swap agreements, interest rate swap agreements and credit default swap agreements with investment grade counterparties. The FX swap agreements are tied to foreign currency forward exchange rates and are used to reduce the currency risk within the Fixed Income portfolio. The swap agreements are entered into on an as-needed basis and are generally tied to the maturity of a foreign government bond indenture denominated in a foreign currency. The purpose of the FX swap agreement that has a final maturity date of less than three months, is to reduce or eliminate the currency risk on foreign bond transactions. U.S. Domestic LIBOR-based floating rate notes, U.S. Treasury securities, and portfolio cash are held to correspond with the notional amount of FX swap agreements within the Fixed Income and International Equity portfolios. Interest rate swaps are used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swap positions that receive fixed rate, increase exposure to long-term interest rates; short swap positions that pay fixed rate, decrease exposure. Credit default



# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

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swaps (CDS) are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure, selling protection, obligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure, buying protection, providing the right to "Put" bonds to the counterparty in the event of a default.

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. For the Over-The-Counter (OTC) derivative instrument investments, the system held collateral of \$33.6 thousand in cash deposits and \$79.5 thousand in securities on behalf of counterparties. Collateral securities in the amount of \$0 were held on our behalf by counterparties.

The Board traded U. S. Treasury bond future contracts to manage duration and yield curve exposure, adjust interest rate exposures and replicate bond positions.

To enhance returns while limiting downside risk, the Board traded equity options in single securities and on indices in the Large Cap Core and All Cap GARP funds. Attractively priced equity options were used for the purchase of stock replacement in order to drive excess returns over the S&P 500, as well as 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. Options traded by the Board in the Fixed Income and International Equity pools are used to manage interest rate and volatility exposures. Written options generate income in expected interest rate scenarios and may generate capital losses, if unexpected interest rate environments are realized. Both written and purchased options will become worthless at expiration if the underlying instrument does not reach the strike price of the option. However, purchased options are often sold well before expiration in order to lock in profits at prices well below listed strike prices, and thereby generate consistent returns.

### 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 Board, 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, 2021, such investment pool had an average duration of 4 days and an average weighted final maturity of 84 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, 2021, 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, 2021, was \$2,203 thousand and \$2,143 thousand 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.

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

### **Credit Risk**

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

- Short-Term Fixed Income Investments – Eligible commercial paper investments must be rated within one of the two highest ratings classifications (“1” or “2”) at the time of purchase from one of the nationally recognized ratings organizations (NRSROs) specified in Public Act 314 of 1965, as amended. Borrowers must have at least \$400.0 million in commercial paper outstanding, and the Board may not invest in more than 10% of the borrower’s outstanding debt.
- 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 Board’s Investment Policy Statement for System. Public Act 314 defines investment grade as investments in the top four major grades, rated by two national rating services. At September 30, 2021, MMRP was in compliance with Public Act 314 and the Investment Policy Statement in all material aspects.

### **Rated Debt Investments**

(in thousands)  
As of September 30, 2021

Investment Type	Fair Value	S&P	Fair Value	Moody's
<b>Short Term</b>	\$ 2,528	A-1	\$ 2,664	P-1
	206	A-2	70	P-2
Money Market	513	AAA	513	Aaa
<b>Government Securities</b>				
U.S. Agencies - Sponsored	1	AAA	438	Aaa
	437	AA	-	Aa
<b>Fixed Income</b>				
	242	AAA	413	Aaa
	147	AA	142	Aa
	319	A	351	A
	912	BBB	785	Baa
	311	BB	288	Ba
	174	B	222	B
	102	CCC	117	Caa
	75	CC	81	Ca
	29	D	-	D
	1,747	NR	1,658	NR
<b>Securities Lending Collateral</b>				
Short Term	333	A-1	350	P-1
Fixed Income	-	AA	288	Aa
	1,780	A	763	A
	91	NR	803	NR
<b>Mutual Funds</b>				
	72	BBB	72	Baa
	95	BB	95	Ba
<b>Total</b>	<u>\$ 10,112</u>		<u>\$ 10,112</u>	

NR – Not Rated

### **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.

# FINANCIAL SECTION

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## NOTES TO BASIC FINANCIAL STATEMENTS

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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 Board does not have a policy for custodial credit risk. However, the State's custodial bank had a credit rating of A at September 30, 2021. As of September 30, 2021, 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, 2021, there were no investments in any single issuer that accounted for more than 5% of MMRP's assets. MMRP held two investments that exceeded 5% cap in obligations of any one issuer. MMRP is aware of the breach and in accordance with MCL 38.1133(3)(g), is developing a prudent plan for reallocating assets to comply with the prescribed limitations.

### ***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 Board'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, 2021, the fair value of MMRP's short-term investments was \$3.2 million with the weighted average maturity of 125 days.

The Board 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

### *Debt Securities*

(in thousands)  
As of September 30, 2021

	<u>Fair Value</u>	<u>Effective Duration in Years</u>
<b>Government</b>		
U. S. Treasury	\$ 2,359	7.1
U. S. Agencies - Backed	238	3.9
U. S. Agencies - Sponsored	438	3.7
<b>Corporate</b>	4,207	3.0
<b>International*</b>		
U. S. Treasury	886	2.0
Corporate	17	0.0
<b>Total</b>	<u>\$ 8,147</u>	

Debt securities are exclusive of securities lending collateral.

\* International contains Domestic Government and Corporate Debt Securities as a part of their derivative instrument 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 Board 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, 2021, the total amount of foreign investment subject to foreign currency risk was \$8.2 million, which amounted to 12.2% of total investments (exclusive of securities lending collateral) of MMRP.

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

### Foreign Currency Risk (in thousands)

As of September 30, 2021

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. \$
<b>AMERICA</b>						
	Brazil	Real	\$ -	\$ 1	\$ 5	\$ -
	Canada	Dollar	9	1	66	-
	Mexico	Peso	1	5	17	-
	Peru	Sol	-	1	-	-
	Columbia	Peso	-	-	-	-
	Chile	Peso	-	5	-	-
	Argentina	Peso	-	-	2	-
<b>PACIFIC</b>						
	Australia	Dollar	2	-	72	-
	Hong Kong	Dollar	19	-	83	-
	India	Rupee	-	-	-	-
	Indonesia	Rupiah	2	1	-	-
	Japan	Yen	3	7	65	-
	Malaysia	Ringgit	-	4	-	-
	Taiwan	New Dollar	-	-	38	-
	China	Renminbi	-	-	18	-
	Singapore	Dollar	5	1	-	-
	South Korea	Won	-	18	10	-
	Thailand	Baht	-	1	-	-
	New Zealand	Dollar	-	-	6	-
	China	Yuan	-	(2)	-	-
	China	Yuan Offshore	-	2	-	-
<b>EUROPE</b>						
	Denmark	Krone	-	-	32	-
	European Union	Euro	169	52	423	527
	Hungary	Forint	-	1	-	-
	U.K.	Pound Sterling	22	12	133	47
	Sweden	Krona	13	-	120	-
	Switzerland	Franc	14	-	17	-
	Czech Republic	Koruna	-	1	-	-
	Russia	Ruble	-	1	-	-
<b>AFRICA</b>						
	South Africa	Rand	3	2	8	-
	Egypt	Pound	-	1	-	-
	Liberia	Dollar	4	-	-	-
	Zambia	Kwacha	-	1	-	-
<b>MIDDLE EAST</b>						
	Israel	New Shekel	-	3	34	-
<b>OTHER</b>						
	Various		-	-	6,132	-
	Total		<u>\$ 265</u>	<u>\$ 120</u>	<u>\$ 7,281</u>	<u>\$ 574</u>

### 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 third-

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

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, 2021. 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.

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.

	Fair Value Measurement Using (in thousands)			
	Balance at September 30, 2021	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by fair value level:</b>				
<b>Total cash and cash equivalents</b>	\$ 14	\$ 14	\$ -	\$ -
<b>Equity</b>				
Depository Receipts	108	108	-	-
Warrants	-	-	-	-
Common Stocks	12,665	12,665	-	-
Preferred Stocks	11	10	1	-
Real Estate Investment Trusts	516	516	-	-
Swaps	64	-	64	-
Commingled Funds, ETF's, and PTP's	8,173	8,174	(1)	-
Options	218	218	-	-
<b>Total Equity</b>	21,756	21,693	64	-
<b>Fixed Income</b>				
Asset Backed	1,486	-	1,478	8
Corporate Bonds	1,444	-	1,429	15
Commercial Mortgage-backed	1,209	-	1,209	-
Government Issues	3,395	2,864	531	-
Swap	(8)	-	(8)	-
US Agency Issues	447	-	447	-
Commingled Funds, ETF's, and PTP's	798	798	-	-
Options	-	-	-	-
<b>Total Fixed Income</b>	8,771	3,662	5,086	23
<b>Total investments by fair value level</b>	<b>\$ 30,542</b>	<b>\$ 25,369</b>	<b>\$ 5,149</b>	<b>\$ 23</b>
<b>Investments measured at the net asset value (NAV)</b>				
Private Equity	\$ 15,480			
Real Estate & Infrastructure	4,531			
Absolute Return	3,434			
Real Return & Opportunistic	7,947			
Other Limited Partnerships	1,472			
<b>Total investments measured at the NAV</b>	<b>\$ 32,864</b>			
<b>Total investments measured at fair value</b>	<b>\$ 63,405</b>			

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

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 (in thousands)*

Total investments measured at the NAV	\$ 15,480
Unfunded commitments	5,649

This type of investment includes investments in approximately 313 partnerships that invest in leveraged buyouts, venture capital, mezzanine debt, distressed debt, secondary funds and other investments. This 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, 2021, 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, 2021, a buyer for these investments has not been identified.

### *Real Estate and Infrastructure (in thousands)*

Total investments measured at the NAV	\$ 4,531
Unfunded commitments	1,430

Real Estate and Infrastructure funds include approximately 107 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 (in thousands)*

Total investments measured at the NAV	\$ 3,434
Unfunded commitments	503

This type includes approximately 14 investments 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 (or its equivalent) of the investments. For 45.8% of the invested capital, investors may redeem at various dates between October 1, 2021 and April 1, 2022; 17.1% of the investments are redeemable between April 1, 2022 through October 1, 2022; 26.2% of the investments are redeemable between October 1, 2022 and October 1, 2032, and the remaining 10.9% is not redeemable on demand.

### *Real Return and Opportunistic Portfolio (in thousands)*

Total investments measured at the NAV	\$ 7,947
Unfunded commitments	2,743

This type includes 95 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.

### *All Other Investments (in thousands)*

Total investments measured at the NAV	\$1,472
Unfunded commitments	483

# FINANCIAL SECTION

## NOTES TO BASIC FINANCIAL STATEMENTS

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The balance of plan assets reported at fair value include 15 investments:

- LPs that invest in fixed income investments such as: residential rehabilitation, middle market business loans and senior secured debt financing. These investments cannot be redeemed by limited partners. Distributions are received through the liquidation of the underlying assets of the fund.
- LPs that invest in fixed income type investments permitting partners to request redemption monthly or quarterly, after initial lock up period of 1 year or less, requiring 45 to 65 days' advance notice.
- LPs investing in global investments permitting partners to request partial redemptions quarterly or monthly, with advance notice, subject to the sole discretion of the general partner.
- LPs that invest in private equity, private credit/loans, and tangible real assets that cannot be redeemed by limited partners. Distributions from each fund will be received as the underlying investments of the funds are liquidated.

### NOTE 6 – ACCOUNTING CHANGES

For fiscal year 2021, MMRP has adopted Governmental Accounting Standards Board (GASB) Statement No. 84, *Fiduciary Activities*. The objective of this statement to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. This Statement also establishes criteria for identifying fiduciary activities of all state and local governments. As a fiduciary component unit of the State, MMRP will be reported in the pension and other employee benefit trust fund financial statements of the State of Michigan's Annual Comprehensive Financial Report.

### NOTE 7 – COMMITMENTS AND CONTINGENCIES

Under the Administrative Procedures Act, members may appeal a decision made by the Retirement Board. Once the administrative procedure has been exhausted, the decision may be appealed in Michigan's court system. Various cases that have exhausted the administrative procedures have been appealed in the court system. These cases are in the normal course of business and MMRP does not anticipate any material loss as a result of the contingent liabilities.

### NOTE 8 – SUBSEQUENT EVENTS

#### DISCOUNT RATE-DEDICATED GAINS POLICY

In 2017, the Department of Technology, Management and Budget Director and the State of Michigan Retirement Board adopted a dedicated gains policy to lower the discount rate in years where investment returns exceed the current assumption based on a schedule determined by the plan actuary. In December 2021, the DTMB Director and the Board modified the dedicated gains policy to limit the reduction in the discount rate to no lower than 6%. This change will impact the fiscal year 2021 pension valuation and the calculated total pension liability, however, the dollar value of this impact cannot be determined at this time.



# FINANCIAL SECTION

## REQUIRED SUPPLEMENTARY INFORMATION

### SCHEDULE OF CHANGES IN NET PENSION LIABILITY

(in thousands)

	Fiscal Year						
	2021	2020	2019	2018	2017	2016	2015
<b>Total Pension Liability</b>							
Service Cost	\$ 718	\$ 229	\$ 206	\$ 140	\$ 110	\$ 403	\$ 357
Interest	3,896	3,710	3,417	3,555	3,609	2,829	3,564
Changes of benefit terms	-	-	5,252	-	-	-	-
Differences between expected and actual experience	(156)	2,573	(610)	700	58	-	(17,548)
Changes of assumptions	-	-	-	2,719	2,505	(30,216)	7,086
Benefit payments, including refunds of member contributions	(4,029)	(3,989)	(3,895)	(3,939)	(4,090)	(3,950)	(3,923)
<b>Net Change in Total Pension Liability</b>	<b>429</b>	<b>2,523</b>	<b>4,370</b>	<b>3,175</b>	<b>2,192</b>	<b>(30,933)</b>	<b>(10,463)</b>
<b>Total Pension Liability - Beginning</b>	<b>59,367</b>	<b>56,844</b>	<b>52,474</b>	<b>49,299</b>	<b>47,107</b>	<b>78,040</b>	<b>88,503</b>
<b>Total Pension Liability - Ending (a)</b>	<b>\$ 59,796</b>	<b>\$ 59,367</b>	<b>\$ 56,844</b>	<b>\$ 52,474</b>	<b>\$ 49,299</b>	<b>\$ 47,107</b>	<b>\$ 78,040</b>
<b>Plan Fiduciary Net Position</b>							
Contributions - Employer	\$ 657	\$ 1,000	\$ 41,045	\$ 16,245	\$ 5,245	\$ 7,780	\$ 4,267
Contributions - Member	-	-	-	-	-	-	-
Net Investment Income	15,012	2,805	2,711	569	78	12	-
Benefit payments, including refunds of member contributions	(4,029)	(3,989)	(3,895)	(3,939)	(4,090)	(3,950)	(3,923)
Administrative and Other Expenses	(201)	(202)	(223)	(273)	(475)	(251)	(344)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>11,440</b>	<b>(387)</b>	<b>39,638</b>	<b>12,601</b>	<b>758</b>	<b>3,591</b>	<b>-</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>56,201</b>	<b>56,588</b>	<b>16,950</b>	<b>4,349</b>	<b>3,591</b>	<b>-</b>	<b>-</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$ 67,641</b>	<b>\$ 56,201</b>	<b>\$ 56,588</b>	<b>\$ 16,950</b>	<b>\$ 4,349</b>	<b>\$ 3,591</b>	<b>\$ -</b>
<b>Net Pension Liability - Ending (a) - (b)</b>	<b>\$ (7,845)</b>	<b>\$ 3,166</b>	<b>\$ 256</b>	<b>\$ 35,524</b>	<b>\$ 44,950</b>	<b>\$ 43,515</b>	<b>\$ 78,040</b>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	113.12 %	94.67 %	99.55 %	32.3 %	8.82 %	7.62 %	- %
<b>Covered Payroll<sup>1</sup></b>	\$ 525	\$ 510	\$ 493	\$ 527	\$ 466	\$ 469	\$ 484
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	(1,494) %	621 %	52 %	6,740 %	9,653 %	9,269 %	16,110 %

<sup>1</sup> The payroll shown applies only to special duty officers and is the payroll used in the corresponding actuarial valuation.

# FINANCIAL SECTION

## REQUIRED SUPPLEMENTARY INFORMATION

### 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 <sup>1</sup> 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
2018	6,849	16,245	(9,396)	527	3,082
2019	4,422	41,045	(36,623)	493	8,325
2020	3,542	1,000	2,542	510	196
2021	657	657	-	525	125

<sup>1</sup> The payroll shown applies only to special duty officers and is the payroll used in the corresponding actuarial valuation.

### SCHEDULE OF INVESTMENT RETURNS

<u>Fiscal Year</u>	<u>Annual Return<sup>1</sup></u>
2017	1.36 %
2018	9.52
2019	6.64
2020	5.48
2021	23.63

<sup>1</sup> 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 the Net Pension Liability, Schedule of Contributions, and Schedule of Investment Returns are schedules that are required in implementing GASB Statement No. 67. These schedules are required to show information for ten years; additional years will be displayed as they become 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 Investment Returns represents the annual money-weighted rate of return, net of investment expenses.

The actuarially determined contributions presented in the Schedule of Contributions for pension are calculated as of September 30, three years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine the fiscal year 2021 contributions reported in that schedule.

#### Methods and Assumptions Used to Determine Contributions for Fiscal Year 2021:

Valuation Date	September 30, 2018
Actuarial Cost Method	Entry Age, Normal
Amortization Method	Level Dollar, Closed Period
Remaining Amortization Period	18 Years as of October 1, 2020, ending September 30, 2038
Asset Valuation Method	5 year smoothed fair value
Price Inflation	2.25%
Salary Increases	2.75%, for Special duty officers
Investment Rate of Return	6.75%, net of investment expenses
Retirement Age	Experience-based table of rates that are specific to the type of eligibility conditions.
Mortality	
Retiree	RP-2014 Male and Female Healthy Annuitant Mortality Table scaled by 93% for males and 99% for females and adjusted for mortality improvements using projection scale MP-2017 from 2006.
Active	RP-2014 Male Employee Mortality Table scaled by 100% for both males and females and adjusted for mortality improvements using projection scale MP-2017 from 2006.
Notes	Some of the assumptions used to develop the 2021 Total Pension Liability are different than the assumptions shown above. The assumptions used to develop the TPL are described in Note 4 (page 24) of this report.

# FINANCIAL SECTION

## SUPPORTING SCHEDULES

### SUMMARY SCHEDULE OF PENSION PLAN ADMINISTRATIVE AND OTHER EXPENSES

For Fiscal Year Ended September 30, 2021

**Personnel Services:**

Staff Salaries	\$ 46,159
Staff Retirement and Social Security	25,879
Staff Other Fringe Benefits	9,193
<b>Total</b>	<u>81,231</u>

**Professional Services:**

Accounting	2,946
Actuarial	36,759
Attorney General	11,580
Audit	44,900
<b>Total</b>	<u>96,185</u>

**Building and Equipment:**

Building Rentals	1,362
Equipment Purchase, Maintenance, and Rentals	31
<b>Total</b>	<u>1,393</u>

**Miscellaneous:**

Office Supplies	22
Postage, Telephone, and Other	4,364
Printing	1,028
Technological Support	16,204
<b>Total</b>	<u>21,617</u>

<b>Total Administrative and Other Expenses</b>	<u>\$ 200,426</u>
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# FINANCIAL SECTION

## SUPPORTING SCHEDULES

### SCHEDULE OF INVESTMENT EXPENSES

For Fiscal Year Ended September 30, 2021

Securities Lending Expenses	\$	2,783
Other Investment Expenses <sup>1</sup>		
ORS-Investment Expenses <sup>2</sup>		12,559
Custody Fees		1,259
Management Fees		256,771
Research Fees		<u>7,424</u>
<b>Total Investment Expenses</b>	<b>\$</b>	<b><u>280,796</u></b>

<sup>1</sup> Refer to the Investment Section for fees paid to investment professionals.

<sup>2</sup> Does not exclude Treasury Civil Service fees recorded as a pass through in the Schedule of Investment Fee - State Treasurer. As of September 30, 2021, fees totaled \$208.

### SCHEDULE OF PAYMENTS FOR PROFESSIONAL SERVICES

For Fiscal Year Ended September 30, 2021

Accounting	\$	2,946
Actuary		36,759
Attorney General		11,580
Independent Auditors		<u>44,900</u>
<b>Total Payments</b>	<b>\$</b>	<b><u>96,185</u></b>

# FINANCIAL SECTION

## SUPPORTING SCHEDULES

### DETAIL OF CHANGES IN PLAN FIDUCIARY NET POSITION

For Fiscal Year Ended September 30, 2021  
(in thousands)

	Employer Contributions	Retired Benefit Payments	Undistributed Investment Income	Total
<b>Additions:</b>				
Contributions:				
Employer contributions:	\$ 657	\$ -	\$ -	\$ 657
Investment income (loss):				
Net increase (decrease) in fair value of investments	-	-	14,016	14,016
Interest, dividends, and other	-	-	1,266	1,266
Investment expenses:				
Other investment expenses	-	-	(278)	(278)
Securities lending activities:				
Securities lending income	-	-	10	10
Securities lending expenses	-	-	(3)	(3)
Net investment income (loss)	-	-	15,012	15,012
<b>Total additions</b>	<b>657</b>	<b>-</b>	<b>15,012</b>	<b>15,670</b>
<b>Deductions:</b>				
Benefits paid to plan members and beneficiaries:				
Retirement benefits	-	4,029	-	4,029
Administrative and other expenses	-	-	200	200
<b>Total deductions</b>	<b>-</b>	<b>4,029</b>	<b>200</b>	<b>4,230</b>
<b>Net Increase (Decrease) before other changes</b>	<b>657</b>	<b>(4,029)</b>	<b>14,812</b>	<b>11,440</b>
<b>Other Changes in Net Position:</b>				
Interest Allocation	1,397	2,390	(3,787)	-
Transfers of employer shares	(4,825)	4,825	-	-
<b>Total other changes in net position</b>	<b>(3,429)</b>	<b>7,215</b>	<b>(3,787)</b>	<b>-</b>
<b>Net Increase (Decrease) in Net Position</b>	<b>(2,771)</b>	<b>3,186</b>	<b>11,025</b>	<b>11,440</b>
<b>Net Position Restricted for Pension Benefits:</b>				
<b>Beginning of Year</b>	<b>21,925</b>	<b>37,524</b>	<b>(3,248)</b>	<b>56,201</b>
<b>End of Year</b>	<b>\$ 19,154</b>	<b>\$ 40,710</b>	<b>\$ 7,777</b>	<b>\$ 67,641</b>

# INVESTMENT SECTION

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

Report on Investment Activity  
Asset Allocation  
Investment Results  
Largest Assets Held  
Schedule of Investment Fees  
Schedule of Investment Commissions  
Investment Summary

# INVESTMENT SECTION

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## REPORT ON INVESTMENT ACTIVITY

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### INTRODUCTION

The State of Michigan Investment Board (Board) was created by Executive Order 2018-10 (Order) and serves as the investment fiduciary over the assets of the State sponsored defined benefit retirement systems (Systems). The Board is responsible for investing the Systems' assets in accordance with the duties and powers enumerated in the Order and State law. Pursuant to powers provided in the Order, the Board duly authorized and delegated duties to the Department of Treasury's Bureau of Investments (BOI) to invest, prudently manage, and oversee the assets of the Systems and to take certain other actions that support the BOI's mandate in this regard. In furtherance of these duties, the BOI delivers quarterly investment activity reports to the Board that detail the investments, goals, and objectives of the Systems.

The Board is comprised of five members: three (3) public members appointed by the Governor and two (2) ex-officio members. The public members serve four (4) year terms and are limited to two (2) such terms. The State Treasurer, as the chair of the Board, and the State Budget Director are the ex-officio members. As of September 30, 2021, members of the Board were as follows: Rachael Eubanks (chair, ex-officio member), Chris Harkins (ex-officio member), James B. Nicholson (public member), Reginald G. Sanders, CFA, CAIA (public member), and Dina L. Richard, CPA (public member). The public members serve without pay but may receive reasonable reimbursement for actual and necessary travel and other expenses to attend official Board meetings.

### INVESTMENT POLICY & GOALS

The Board's Investment Policy Statement states that it and the BOI will operate in accordance with Public Employee Retirement System Investment Act (Act No. 314 of 1965) and within standard investment practices of the prudent person. This includes being 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, Systems' assets are to be invested in a fiduciary capacity for the sole and exclusive benefit of the members of the Systems.

The Systems' Proxy Voting Policy sets forth directives on various issues as holders of publicly traded securities, including but not limited to: Boards of Directors, corporate governance, social issues, and various corporate actions. All proxies are reviewed and voted in accordance with the Systems' policy.

The primary function of the Systems is to provide retirement, survivor and disability benefits along with health and other postemployment benefits to its members. The Board is investment fiduciary and custodian of the Systems' investments pursuant to the Order and other State law. The goals of the Systems 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



# INVESTMENT SECTION

## REPORT ON INVESTMENT ACTIVITY

The strategy for achieving these goals is supported by investing the assets of the Systems according to a five year asset allocation model. The Systems currently invest in eight different asset classes, which provides for a well-diversified portfolio.

### ASSET ALLOCATION

(Excludes Collateral on Loaned Securities)

<u>Investment Category</u>	<u>As of 9/30/21 Actual %</u>	<u>Five-Year Target %</u>
Domestic Equity Pools	22.9%	25.0%
International Equity Pools	16.1	15.0
Private Equity Pools	23.2	16.0
Real Estate and Infrastructure Pools	6.8	10.0
Fixed Income Pools	9.9	10.5
Absolute Return Pools	5.2	9.0
Real Return and Opportunistic Pools	12.0	12.5
Short-Term Investment Pools	3.9	2.0
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>

### INVESTMENT AUTHORITY

Pursuant to State law (Executive Order 2018-10, which in part transferred to the Board the powers enumerated in (i) Section 91 of Act No. 380 of the Public Acts of 1965, as amended, and (ii) Section 12c of Act No. 314 of 1965), the Board is the investment fiduciary for the Systems, which is comprised of the State sponsored defined benefit retirement systems: Michigan Public School Employees' Retirement System, State Employees' Retirement System, Michigan State Police Retirement System, Michigan Judges' Retirement System, and the Michigan Military Retirement Provisions. The State Treasurer, State of Michigan, is custodian and ex officio treasurer of the retirement systems for the Legislators, State of Michigan (Section 47 of Act no. 261 of the Public Acts of 1957, as amended).

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. This included conferring the investment duties over the Military Retirement Provisions to the State Treasurer; the investment duties were subsequently transferred to the Board pursuant to the Order. The Military Pension Fund is pooled and invested alongside the Michigan State Employees' pension fund.

### INVESTMENT RESULTS

#### TOTAL PORTFOLIO RESULTS

For the fiscal year ended September 30, 2021, Michigan Military Retirement Provisions' (MMRP) total rate of return was 27.3% as compiled by State Street Investment Analytics.

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 Composite 1500 for one, three, and five-year periods and a market cycle.

# INVESTMENT SECTION

## REPORT ON INVESTMENT ACTIVITY

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

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 a prudent measure of 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 Composite 1500 Index.

The following summarizes the weightings of the pools as of September 30, 2021:

Active	52.7 %
Passive	47.3
<b>Total</b>	<b><u>100.0 %</u></b>

Large-Cap	63.9 %
Multi-Cap	30.9
Mid-Cap	2.9
Small-Cap	2.3
<b>Total</b>	<b><u>100.0 %</u></b>

MMRP's Domestic Equity pools total rate of return was 33.2% for fiscal year 2021. This compared with 31.4% for the S&P Composite 1500 index.

At the close of fiscal year 2021, the Domestic Equity pools represented 22.9% of total investments. The following summarizes MMRP's 0.1% ownership share of the Domestic Equity pools at September 30, 2021:

### ***Domestic Equity Pools***

(in thousands)

Short-Term Pooled Investments	\$	560
Equities		14,891
Settlement Principal Payable		(8)
Settlement Proceeds Receivable		9
Accrued Dividends		14
<b>Total</b>	<b>\$</b>	<b><u>15,466</u></b>

### **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-USA Net for one, three, and five-year periods and a market cycle.

# INVESTMENT SECTION

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## REPORT ON INVESTMENT ACTIVITY

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For active management strategies, the objective is to earn returns that exceed the most relevant MSCI Index, adjusting for market capitalization, style and geography for one, three, and five-year periods and a market cycle. Another objective is to rank above median in a universe of managers possessing a similar market capitalization, style and geography characteristics.

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

The pools diversify their investments by allocating their equity strategies with consideration of the economic development status weightings of the MSCI ACWI ex-USA Index.

The following summarizes the weightings of the pool as of September 30, 2021:

Active	75.2 %
Passive	<u>24.8</u>
<b>Total</b>	<b><u>100.0 %</u></b>

Developed	95.8 %
Emerging	<u>4.2</u>
<b>Total</b>	<b><u>100.0 %</u></b>

MMRP's International Equity pools total rate of return was 25.7% for fiscal year 2021. This compared with 23.9% for the MSCI ACWI ex-USA Net.

At the close of fiscal year 2021, the International Equity pools represented 16.1% of total investments. The following summarizes MMRP's 0.1% ownership share of the International Equity Pools at September 30, 2021:

### *International Equity Pools*

(in thousands)

Short-Term Pooled Investments	\$ 719
Equities	9,182
Fixed Income Securities	904
Market Value of Equity Contracts	100
Accrued Dividends and Interest	<u>3</u>
<b>Total</b>	<b><u>\$ 10,908</u></b>

# INVESTMENT SECTION

## REPORT ON INVESTMENT ACTIVITY

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### 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 the S&P 500 Index plus 300 basis points net of fees, lagged by three months over three, five, seven and ten-year periods and a market cycle.

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, 2021:

Buyout Funds	47.6 %
Fund of Funds	25.2
Venture Capital Funds	13.1
Special Situation Funds	9.5
Liquidation Portfolio	3.1
Mezzanine Funds	1.5
<b>Total</b>	<b><u>100.0 %</u></b>

The Private Equity pools had a return of 54.1% for the fiscal year ended September 30, 2021, versus the benchmark of 44.9%.

At the close of fiscal year 2021, the Private Equity pools represented 23.2% of total investments. The following summarizes MMRP's 0.1% ownership share of the Private Equity pools at September 30, 2021:

#### *Private Equity Pools*

(in thousands)

Short-Term Pooled Investments	\$ 186
Equities	15,499
Settlement Proceeds Receivable	9
<b>Total</b>	<b><u>\$ 15,694</u></b>

### 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

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## REPORT ON INVESTMENT ACTIVITY

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

Multi-family apartments	42.6 %
Commercial office buildings	8.3
Hotel	8.2
Infrastructure	10.7
Industrial warehouse buildings	20.9
Single Family	2.5
Retail shopping centers	4.5
Land	1.2
Short Term Investments	1.1
<b>Total</b>	<b><u>100.0 %</u></b>

The Real Estate and Infrastructure pools generated a return of 12.7% for fiscal year 2021. The Real Estate and Infrastructure pools compare performance with two benchmark returns from the National Council of Real Estate Investment Fiduciaries (NCREIF): the NCREIF Property Index (less 130 basis points) was 10.7% and the NCREIF Fund Index - Open-End Diversified Core Equity (NFI-OCDE) was 13.6%.

At the close of fiscal year 2021, the Real Estate and Infrastructure pools represented 6.8% of total investments. The following summarizes the MMRP's 0.1% ownership share of the Real Estate and Infrastructure pools at September 30, 2021:

### *Real Estate and Infrastructure Pools*

(in thousands)

Short-Term Pooled Investments	\$	50
Real Estate Equities		4,081
Infrastructure Equities		494
Accrued Dividends		1
<b>Total</b>	<b>\$</b>	<b><u>4,626</u></b>

### **FIXED INCOME POOLS**

The objective for investments made in the Fixed Income pools is to meet or exceed the Bloomberg US Aggregate Bond Index over one, three, and five-year periods and market cycles. Another objective is to 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 Bloomberg 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.

# INVESTMENT SECTION

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## REPORT ON INVESTMENT ACTIVITY

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MMRP's Fixed Income pools total rate of return was 3.8% for fiscal year 2021. This compares to (0.9)% for the Bloomberg US Aggregate Bond Index.

At the close of fiscal year 2021, the Fixed Income pools represented 9.9% of total investments. The following summarizes MMRP's 0.1% ownership share of the Fixed Income pools at September 30, 2021:

### *Fixed Income Pools*

(in thousands)

Short-Term Pooled Investments	\$	79
Fixed Income Securities		6,622
Accrued interest		13
<b>Total</b>	<b>\$</b>	<b>6,714</b>

### **ABSOLUTE RETURN POOLS**

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. Another objective is to exceed the appropriate HFN Fund of Funds Conservative Index median net of fees over one, three, and five-year periods and a market cycle.

The Absolute Return Strategies pool rate for the fiscal year was 15.3% versus the benchmark's 12.4%.

At the close of fiscal year 2021, the Absolute Return Pools represented 5.2% of total investments. The following summarizes MMRP's 0.1% ownership share of the Absolute Return Pools at September 30, 2021:

### *Absolute Return Pools*

(in thousands)

Short-Term Pooled Investments	\$	51
Equities		3,434
<b>Total</b>	<b>\$</b>	<b>3,485</b>

### **REAL RETURN AND OPPORTUNISTIC POOLS**

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 four percent (4%) annually net of fees over one, three, and five-year periods and a market cycle. Opportunistic investments are targeted to earn a return that exceeds the current actuarial assumed rate of return, with the overall Real Return and Opportunistic Pool's benchmark an equal blend between the two benchmarks. If a peer universe is available, the objective is to rank above median in a nationally recognized universe of managers possessing a similar style.

# INVESTMENT SECTION

## REPORT ON INVESTMENT ACTIVITY

The Real Return and Opportunistic pool rate of return for the fiscal year was 23.5% versus the benchmark's 8.3%.

At the close of fiscal year 2021, the Real Return and Opportunistic Pools represented 12.0% of total investments. The following summarizes MMRP's 0.1% ownership share of the Short-Term Investment pools at September 30, 2021:

### *Real Return and Opportunistic Pools*

(in thousands)

Short-Term Pooled Investments	\$	90
Equities		8,023
<b>Total</b>	<b>\$</b>	<b>8,113</b>

### SHORT-TERM INVESTMENT POOLS

The objective of the Short-Term Investment pools is to closely match the return performance of its benchmark, the 30-day Treasury bill. The Short-Term Investment pools return for the fiscal year was 0.2% versus the benchmark's 0.1%.

Potential areas of investment are:

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

At the close of fiscal year 2021, the Short-Term Investment pools represented 3.9% of total investments. The following summarizes MMRP's 0.4% ownership share of the Short-Term Investment pools at September 30, 2021:

### *Short-Term Investment Pools*

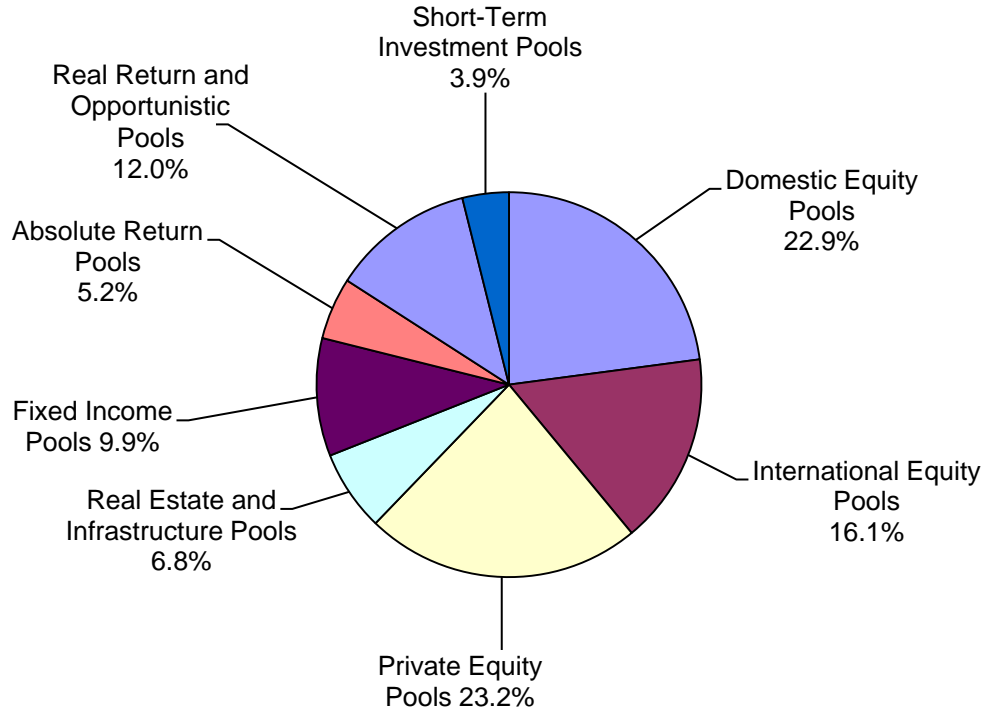
(in thousands)

Short-Term Pooled Investments	\$	1,162
Fixed Income Securities		1,464
<b>Total</b>	<b>\$</b>	<b>2,633</b>

# INVESTMENT SECTION

## REPORT ON INVESTMENT ACTIVITY

### ASSET ALLOCATION – SECURITY TYPE ONLY





# INVESTMENT SECTION

## INVESTMENT RESULTS

### PENSION PLAN INVESTMENT RESULTS

For the Period Ending September 30, 2021

Investment Category	Annualized Rate of Return <sup>1</sup>	
	Current Year	3 Years
Total Portfolio	27.3 %	11.9 %
Domestic Equity Pools	33.2	14.7
S&P Composite 1500 Index	31.4	15.5
International Equity Pools	25.7	9.5
International Blended Benchmark <sup>2</sup>	23.9	8.0
Private Equity Pools	54.1	21.6
Private Equity Benchmark <sup>3</sup>	44.9	22.2
Real Estate and Infrastructure Pools	12.7	3.9
NCREIF Property Blended Index <sup>4</sup>	10.7	5.4
Fixed Income Pools	3.8	5.5
Bloomberg US Aggregate Bond Index	(0.9)	5.4
Absolute Return Pools	15.3	7.2
HFRI Fund of Funds Conservative Aggregate Index	12.4	5.3
Real Return and Opportunistic Pools	23.5	13.1
Real Return and Opportunistic Benchmark <sup>5</sup>	8.3	7.0
Short-Term Investment Pools	0.2	1.5
30-Day Treasury Bill	0.1	1.1

<sup>1</sup> Calculations used a time-weighted rate of return based on the market rate of return in accordance with industry standards. Excludes income and investment gains and losses from securities lending.

<sup>2</sup> As of 7/1/14, index is MSCI ACWI Ex-US Net. History 10/1/10 to 6/30/14 is MSCI ACWI Ex-US Gross. History 1/1/10 to 9/30/10 is S&P Developed BMI-EPAC Net 75/25. History prior to 1/1/10 is S&P Developed BMI-EPAC Net 50/50.

<sup>3</sup> Index is blend of S&P 500 plus 300 bps with a 3 month lag.

<sup>4</sup> As of 10/1/05, index is NCREIF less 130 bp. History prior to 10/1/05 reflects NCREIF less 75 bp.

<sup>5</sup> As of 12/1/18 Benchmark is 50% (CPI+4%) and 50% (actuarial rate 7.05%). History prior to 12/1/18 reflects 50% (CPI+5%) and 50% (actuarial rate 8%).

# INVESTMENT SECTION

## LARGEST ASSETS HELD

### LARGEST STOCK HOLDINGS

(By Fair Value)  
September 30, 2021

Rank	Shares	Stocks	Fair Value
1	2,072	Microsoft Corp.	\$ 584,205
2	3,932	Apple Inc.	556,338
3	115	Amazon.com Inc.	377,244
4	91	Alphabet Inc. CL A	243,508
5	3,775	Bristol Myers Squibb	223,371
6	7,780	AT&T Inc.	210,136
7	593	Facebook Inc. CL A	201,402
8	2,727	Athene Holding LTD CL A	187,808
9	795	Nvidia Corp.	164,664
10	61	Alphabet Inc. CL C	161,946

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

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.

### LARGEST BOND HOLDINGS

(By Fair Value)  
September 30, 2021

Rank	Par Amount	Bonds & Notes	Fair Value
1	208,948	US Treasury N/B .25% Due 05/31/2025	\$ 205,357
2	115,322	FNMA TBA 30 YR 3.5 Single Family Mortgage	122,007
3	104,776	US Treasury N/B 2.375% Due 05/15/2029	112,376
4	96,798	US Treasury N/B 1.125% Due 02/15/2031	93,667
5	87,062	US Treasury N/B 2.500% Due 05/15/2024	91,741
6	90,544	US Treasury N/B .125% Due 09/15/2023	90,265
7	68,651	US Treasury N/B 3.375% Due 11/15/2048	87,237
8	87,062	US Treasury N/B .125% Due 07/15/2023	86,878
9	87,062	US Treasury N/B .375% Due 08/15/2024	86,735
10	85,813	US Treasury N/B 2.000% Due 02/15/2050	84,067

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

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 of Michigan Investment Board (Board) is the investment fiduciary and custodian of MMRP's funds pursuant to State law. Outside advisors are utilized to augment the State of Michigan's internal staff. 70.2% 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 end amounted to \$13 thousand or six and four tenths basis points (0.06%) of the fair value of the Assets under Management of the Board.

### SCHEDULE OF INVESTMENT FEES

#### Investment Managers' Fees:

	<b>Assets under Management (in thousands)</b>	<b>Fees (in thousands)</b>	<b>Basis Points*</b>
State Treasurer	\$ 20,166	\$ 13	6.4
Outside Advisors for			
Short Term	345	-	-
Fixed Income	3,556	15	42.2
Absolute Return	3,485	6	17.2
Real Return and Opportunistic	8,035	45	56.0
International Equity	8,670	21	24.2
Domestic Equity	3,105	8	25.8
Private Equity	15,694	121	77.1
Real Estate and Infrastructure	4,581	41	89.5
<b>Total</b>	<b>\$ 67,637</b>	<b>\$ 270</b>	

#### Other Investment Services Fees:

Assets in Custody	\$ 66,774	\$ 9
Securities Lending Collateral	2,203	1

\* Private Equity partnership agreements that define the management fees, the asset management fees range from 0 to 250 basis points of the committed capital. For Real Estate/Infrastructure, the asset management fees range from 12 to 150 basis points. For Absolute Return, the asset management fees range from 0 to 200 basis points. For Real Return and Opportunistic, 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, 2021

	Actual Commissions Paid <sup>1</sup>	Actual Number of Shares Traded <sup>1</sup>	Average Commission Per Share	Estimated Trade Costs Per Share	Estimated Research Costs Per Share	Estimated Trade Costs	Estimated Research Costs
<b>Investment Brokerage Firms:</b>							
BTIG LLC	\$ 449	37,341	\$ 0.01	\$ 0.01	\$ -	\$ 187	\$ -
Capital Institutional Services Inc.	66	13,148	0.01	0.01	-	131	-
Cowen & Company LLC	169	8,475	0.02	0.01	0.01	85	85
Drexel Hamilton LLC	10	1,928	0.01	0.01	-	19	-
J. P. Morgan Securities Inc.	177	9,409	0.02	0.01	0.01	94	94
Jefferies & Company	-	20	0.01	0.01	-	-	-
Merrill Lynch, Pierce, Fenner & Smith Inc.	117	4,680	0.03	0.01	0.02	47	94
MKM Partners LLC	288	17,646	0.02	0.01	0.01	176	176
Morgan Stanley & Co. Inc.	39	2,006	0.02	0.01	0.01	20	20
National Financial	-	14	0.01	0.01	-	-	-
OTA LLC	-	1	-	0.01	0.01	-	-
Raymond James and Associates Inc.	38	1,506	0.03	0.01	0.02	15	30
Roberts & Ryan Inv.	84	4,214	0.02	0.01	0.01	42	42
Stifel, Nicolaus & Co. Inc.	1	29	0.02	0.01	0.01	-	-
Wayne & Company	211	57,465	-	0.01	-	287	-
Glen Eagle Wealth	17	1,748	0.01	0.01	-	17	-
<b>Total</b>	<b>\$ 1,666</b>	<b>159,630</b>	<b>\$ 0.01</b> <sup>2</sup>	<b>\$ 0.01</b>	<b>\$ 0.01</b>	<b>\$ 1,120</b>	<b>\$ 541</b>

<sup>1</sup> 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.

<sup>2</sup> The average commission per share for all brokerage firms.

# INVESTMENT SECTION

## INVESTMENT SUMMARY

Fiscal Year Ended September 30, 2021

	<u>Fair Value</u> <sup>1</sup>	<u>Percent of Fair Value</u>	<u>Investment &amp; Interest Income</u> <sup>2</sup>	<u>Percent of Total Investment &amp; Interest Income</u>
Fixed Income Pools	\$ 6,714,293	9.9 %	\$ 250,632	1.7 %
Domestic Equity Pools	15,465,789	22.9	4,007,850	26.2
Real Estate and Infrastructure Pools	4,625,797	6.8	599,956	3.9
Private Equity Pools	15,693,581	23.2	5,991,503	39.2
International Equity Pools	10,907,520	16.1	2,339,199	15.3
Absolute Return Pools	3,484,982	5.2	418,105	2.8
Real Return and Opportunistic Pools	8,113,327	12.0	1,669,795	10.9
Short Term Investment Pools <sup>3</sup>	<u>2,633,294</u>	<u>3.9</u>	<u>5,640</u>	<u>-</u>
<b>Total</b>	<u>\$ 67,638,583</u>	<u>100.0 %</u>	<u>\$ 15,282,680</u>	<u>100.0 %</u>

<sup>1</sup> Fair value excludes \$2,203,276 in securities lending collateral for fiscal year 2021.

<sup>2</sup> Total Investment & Interest Income excludes net security lending income of \$7,313 for securities lending collateral.

<sup>3</sup> Short term investment pools fair value includes \$865,008 of equity in common cash.

# INVESTMENT SECTION

## INVESTMENT SUMMARY

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# ACTUARIAL SECTION

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Actuary's Certification  
Summary of Actuarial Assumptions and Methods  
Actuarial Valuation Data  
Prioritized Solvency Test  
Analysis of System Experience  
Summary of Plan Provisions  
Schedule of Funding Progress

# ACTUARIAL SECTION

## ACTUARY'S CERTIFICATION



800.521.0498 | P: 248.799.9000 | F: 248.799.9020 | [www.grsconsulting.com](http://www.grsconsulting.com)

January 5, 2022

Ms. Michelle Lange, Acting Director  
Department of Technology, Management and Budget  
and  
The State of Michigan Retirement Board  
P.O. Box 30171  
Lansing, Michigan 48909

Ladies and Gentlemen:

The basic financial objective of the Military Retirement Provisions (MRP) is to establish and receive contributions which when combined with present assets and future investment return will be sufficient to meet the financial obligations of the plan to present and future benefit recipients. The progress towards meeting these financial objectives is illustrated in the Schedule of Funding Progress and the Schedule of Employer Contributions.

We performed an actuarial funding valuation and issued an actuarial funding report for the MRP as of September 30, 2020. The purpose of the September 30, 2020 annual actuarial valuation was to determine the contribution requirements for the fiscal year ending September 30, 2023, to measure the plan's funding progress, and to provide actuarial information in connection with applicable Governmental Accounting Standards Board statements. The valuation should not be relied upon for any other purpose. The valuation process develops employer contributions that are sufficient to fund the plan's normal cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund any unfunded accrued liabilities over a reasonable period. The valuation was completed based upon population data, asset data and plan provisions in effect on September 30, 2020.

In addition to the funding valuation report, separate reports are issued to provide financial reporting information for the MRP in accordance with Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68. Reports containing the actuarial results of the financial reporting valuation are produced annually after the publication of this letter. The GASB Statement Nos. 67 and 68 financial reporting valuations are based upon a measurement date of September 30, 2021.

The valuations were based upon information provided by the plan's administrative staff concerning benefit provisions, financial transactions, and individual members, terminated members, retirees and beneficiaries. We checked the data for internal and year to year consistency but did not audit the data. As a result, we do not assume responsibility for the accuracy or completeness of the data provided by the plan's administrative staff. The actuary summarizes and tabulates population data in order to analyze long term trends. The plan's external auditor audits the actuarial data annually.

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



# ACTUARIAL SECTION

## ACTUARY'S CERTIFICATION

Ms. Michelle Lange  
January 5, 2022  
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Annual actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rate of investment return and payroll growth, eligibility for the various classes of benefits and longevity among retired lives. These assumptions are adopted by the Board and the Department after considering the advice of the actuary and other professionals. The assumptions and the methods comply with the disclosure requirements of the applicable GASB Statements. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution requirements as needed.

The following schedules in the Financial Section, the Actuarial Section, and the Statistical Section of the Annual Comprehensive Financial Report (ACFR) were prepared by the Department of Financial Services based upon certain information presented in the previously mentioned funding and financial reporting valuation reports:

### Financial Section

- Note 1 - Table of Plan's Membership
- Note 4 – Net Pension Liability; Summary of Actuarial Assumptions and Methods
- Note A – Methods and Assumptions Used to Determine Contributions for FY 2021
- Schedules of Changes in the Net Pension Liability (NPL) and Related Ratios
- Schedules of Contributions Multiyear
- Sensitivity of the NPL to Changes in the Discount Rate

### Actuarial Section

- Summary of Actuarial Assumptions and Methods used in the September 30, 2020 Pension Funding Valuation
- Percent of Eligible Active Members Retiring Within Next Year
- Separation from Active Employment Before Age and Service Retirement and Individual Pay Increase Assumptions
- Schedule of Active Member Pension Valuation Data
- Schedule of Changes in the Retirement Rolls
- Prioritized Solvency Test
- Analyses of Plan Experience
- Schedule of Funding Progress

### Statistical Section

- Schedules of Average Benefit Payments – Pension

The September 30, 2020 funding valuation and the September 30, 2021 financial reporting valuations were based upon assumptions that were recommended in connection with a study of plan's experience covering the period from October 1, 2015 through September 30, 2017. Future actuarial measurements may differ significantly from those presented in the annual valuations due to such factors as experience differing from that anticipated by actuarial assumptions, or changes in plan provisions, actuarial assumption/methods or applicable law. Due to the limited scope of the assignment, we did not perform an analysis of the potential range of future measurements.



# ACTUARIAL SECTION

## ACTUARY'S CERTIFICATION

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Ms. Michelle Lange  
January 5, 2022  
Page 3

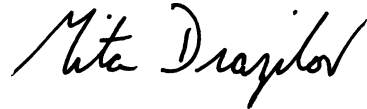
The signing actuaries are independent of the plan sponsor.

The actuarial valuations of the MRP were performed by qualified actuaries in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with applicable State statutes. The assumptions and methods used for funding and financial reporting purposes are in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Louise Gates and Mita Drazilov are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. It is our opinion that the calculated employer contribution meets the financial objective of the pension plan.

Respectfully submitted,



Louise M. Gates, ASA, FCA, MAAA



Mita D. Drazilov, ASA, FCA, MAAA



# ACTUARIAL SECTION

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## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

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1. The investment return rate used in the valuations was 6.75% per year net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. Considering a wage inflation assumption of 2.75%, this 6.75% investment return rate translates to an assumed long-term real rate of return 4.0%. Adopted 2018.
2. The healthy life mortality table used in evaluating allowances to be paid was the RP-2014 Male and Female Healthy Mortality Tables scaled by 93% for males and 99% for females and adjusted for mortality improvements using projection scale MP-2017 from 2006. Adopted 2018.
3. Sample probabilities of retirement with an age and service allowance are shown in Schedule 1 on the next page.
4. Sample probabilities of withdrawal from service assumptions, are shown in Schedule 2 on the next page.
5. Total active (Special Duty Officer) member payroll is assumed to increase 2.75% per year. This represents the portion of the individual pay increase assumptions. In effect, this assumes no change in the number of active Special Duty Officer members.
6. An individual entry age actuarial cost method of valuation was used in determining actuarial liabilities and normal cost. Unfunded actuarial accrued liabilities, including actuarial gains and losses, were financed over a declining 16-year period ending September 30, 2038.
7. For investment gains and losses that occur, a 5-year smoothing technique was used. Specifically, the excess (shortfall) of actual investment income (including interest, dividends, realized and unrealized gains or losses) over the imputed income at the valuation interest rate is considered the gain (loss), which is spread over five years. Adopted beginning with the 2016 valuation.
8. The data about persons now covered and about present assets was furnished by the plan's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.
9. The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA). The assumptions used in the actuarial valuations were adopted by the plan's Board and the Department of Technology, Management & Budget after consulting with the actuary.
10. An experience investigation covering the period from October 1, 2015 through September 30, 2017 was completed in 2018. The purpose of the study was to analyze the actual experience of the Provisions versus that anticipated by actuarial assumptions then in use.
11. Gabriel Roeder Smith and Co. was awarded the actuarial and consulting services contract beginning October 4, 2006.

# ACTUARIAL SECTION

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

### SCHEDULE 1

#### PERCENT OF ELIGIBLE ACTIVE MEMBERS RETIRING WITHIN NEXT YEAR

<u>Age</u>	<u>% Retiring M Day</u>	<u>% Retiring Special Duty</u>
55	33%	10%
56	33	10
57	33	10
58	33	10
59	33	10
60 and over	100	100

### SCHEDULE 2

#### SEPARATION FROM ACTIVE EMPLOYMENT BEFORE AGE & SERVICE RETIREMENT & INDIVIDUAL PAY INCREASE ASSUMPTIONS

<u>Sample Ages</u>	<u>Completed Years of Service</u>	<u>Percent Separating within Next Year</u>	
		<u>M Day</u>	<u>Special Duty</u>
All	0	25.0%	N/A
	1	20.0	N/A
	2	18.0	N/A
	3	16.0	N/A
	4	15.5	N/A
25	5 & Over	15.4	7.0%
30		14.4	7.0
35		13.4	7.0
40		10.6	7.0
45		8.4	4.5
50		7.4	2.0
55		6.4	2.0

# ACTUARIAL SECTION

## ACTUARIAL VALUATION DATA

### SCHEDULE OF ACTIVE MEMBER PENSION VALUATION DATA

Valuation Date Sept. 30	Number	Reported Annual Payroll <sup>1</sup>	Average Annual Pay <sup>1</sup>	Increase (Decrease)	Average Age	Average Service
2016	10,144	\$ 465,680	\$ 155,227	3.9%	31.5	7.1
2017	10,394	493,395	164,465	6.0	31.4	7.1
2018	10,554	348,259	174,130	5.9	31.4	7.3
2019	10,682	493,005	164,335	(5.6)	31.2	7.4
2020	10,919	509,540	169,847	3.4	31.1	7.4

<sup>1</sup> Includes only special duty officers' payroll.

### SCHEDULE OF CHANGES IN RETIREMENT ROLLS

Year Ended Sept.30	Added to Rolls		Removed from Rolls		Rolls – End of Year		Increase in Annual Allowances	Average Annual Allowances
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances		
2016	177	\$ 118,680	100	\$ 93,168	4,325	\$ 3,912,600	0.7%	\$ 905
2017	183	161,481	146	141,031	4,362	3,933,051	0.5	902
2018	187	126,130	94	273,043	4,455	3,786,139	(3.7)	850
2019	188	295,682	114	125,560	4,529	3,956,261	4.5	874
2020	168	190,272	150	134,232	4,547	4,012,300	1.4	882

These schedules are required to show information for ten years; additional years will be displayed as they become available.

# ACTUARIAL SECTION

## PRIORITIZED SOLVENCY TEST

MMRP funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year. The contributions are level in dollar amounts for M-Day participants and as a percent of payroll for Special Duty Officers. If the contributions to MMRP are level in concept and soundly executed, MMRP will pay all promised benefits when due, the ultimate test of financial soundness. Testing for level contributions is the long-term solvency test.

A prioritized solvency test is another means of checking MMRP progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with: (1) active member contributions on deposit; (2) the liabilities for future benefits to present retired lives; and (3) the liabilities for service already rendered by active and inactive members. In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) are normally partially covered by the remainder of present assets. Generally, if MMRP has been using level-cost financing, the funded portion of liability 3 will increase over time. Liability 3 being fully funded is not necessarily a by-product of level percent of payroll funding methods.

The schedules that follow illustrate the history of the liabilities of MMRP and are indicative of MMRP policy of following the discipline of level percent of payroll financing.

### PENSION BENEFITS

(in thousands)

Valuation Date	Actuarial Accrued Liability (AAL)			Valuation Assets	Portion of AAL Covered by Assets			
	(1)	(2)	(3)		(1)	(2)	(3)	(4) <sup>2</sup>
	Active Member Contributions	Retirants and Beneficiaries	Active and Inactive Members (Employer Financed Portion)					
Sept. 30 <sup>3</sup>								
2016	\$ -	\$ 38,889,306	\$ 8,270,646	\$ 3,696,232	- %	9.5%	- %	7.8%
2016 <sup>1</sup>	-	40,483,759	9,191,169	3,696,232	-	9.0	-	7.4
2017	-	40,022,670	9,927,450	4,602,232	-	11.5	-	9.2
2018	-	37,585,252	11,294,179	17,213,520	-	45.8	-	35.2
2018 <sup>1</sup>	-	39,697,297	17,104,389	17,213,520	-	43.4	-	30.3
2019	-	41,512,403	18,873,803	56,518,623	-	100.0	80.0	93.6
2020	-	42,349,013	18,181,447	56,824,590	-	100.0	80.0	93.9
2020 <sup>1</sup>	-	42,349,013	16,871,386	56,824,590	-	100.0	86.0	96.0

<sup>1</sup> Revised actuarial assumption and/or methods.

<sup>2</sup> Percent funded on a total valuation asset and total actuarial accrued liability basis.

<sup>3</sup> This schedule is presented to illustrate each of the ten most recent years. The ten-year data will be provided when information becomes available.

# ACTUARIAL SECTION

## PRIORITIZED SOLVENCY TEST

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# ACTUARIAL SECTION

## ANALYSIS OF SYSTEM EXPERIENCE

### GAINS/(LOSSES) IN ACCRUED LIABILITIES

During Year Ended September 30, 2020  
Resulting from Differences Between Assumed Experience & Actual Experience

<u>Type of Activity</u>	<u>Gain/(Loss)</u>
1. <b>Demographic.</b> Includes retirement, withdrawal and death.	\$ 45,017
2. <b>Investment Income.</b> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(209,687)
3. <b>Composite Gain (or Loss) During Year.</b>	<u>\$ (164,670)</u>



# ACTUARIAL SECTION

## SUMMARY OF PLAN PROVISIONS

---

Our actuarial valuation of the Military Retirement Provisions is based on our understanding of the present provisions of Public Act 150 of 1967.

### RETIREMENT BENEFITS

#### *Eligibility*

- Age 60 with at least 20 years of service for members who began active service before June 30, 1967.
- Age 62 with at least 20 years of active service.
- Age 55 with at least 20 years of service and one or more of the following:
  - a. Ineligibility and termination of the person's commission or enlistment.
  - b. Physical disqualification from service.
  - c. Separation from the National Guard under an honorable circumstance.
- Age 55 with at least 20 years of service for Special Duty officers (the Adjutant General and any assistant Adjutant General). To be eligible, the Adjutant General or Assistant Adjutant General must serve at least four consecutive years of special duty as the Adjutant General or Assistant Adjutant General. This requirement is waived if the service member is relieved due to a new governor assuming office.
- Officers, Warrant Officers, and Enlisted personnel **must** retire upon reaching the age of 62 (assuming they have at least 20 years of service).

#### *Annual Amount*

Members on special duty receive an annual benefit of 45% of final compensation. Non-special duty members received \$600 per annum. The benefit is payable for life.

### VESTING

Inactive members with 20 or more years of service are entitled to a benefit upon reaching age 55.

### SURVIVOR BENEFITS

The surviving spouse of a deceased National Guard member receives \$500 per annum if the former member died while in active service, or had at least 20 years of active service and who, at the time of death, met one of the three additional requirements:

- (1) Honorable discharge,
- (2) Termination due to disability, or
- (3) Reaching the Federal limit for age or length of service

The spouse of the Adjutant General or Assistant Adjutant General who dies prior to retirement but after earning 15 years of active service 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. The spouse of the Adjutant General or Assistant Adjutant General who dies after retirement shall be paid a lifetime monthly benefit equal to 50% of the retired pay.

### POST-RETIREMENT COST-OF-LIVING ADJUSTMENTS

Retired special duty members who retired before December 18, 2018, and their survivors, receive annual benefit adjustments equal to the percentage by which federal military service benefits are increased.

# ACTUARIAL SECTION

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## SCHEDULE OF FUNDING PROGRESS

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### PENSION BENEFITS (in thousands)

Valuation Date Sept 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Overfunded) Accrued Liability (UAAL) (b-a)	Funded Ratio (a/b)
2016	\$ 3,696	\$ 47,160	\$ 43,464	7.8%
2016 <sup>1</sup>	3,696	49,675	45,979	7.4
2017	4,602	49,950	45,348	9.2
2018	17,214	48,879	31,665	35.2
2018 <sup>1</sup>	17,214	56,802	39,588	30.3
2019	56,519	60,386	3,867	93.6
2020	56,825	60,530	3,705	93.9
2020 <sup>1</sup>	56,825	59,220	2,395	96.0

<sup>1</sup> Revised actuarial assumption

Source: Gabriel Roeder Smith & Co.

This schedule is required to show information for ten years; additional years will be displayed as they become available.

# STATISTICAL SECTION

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Contents
Schedule of Additions by Source
Schedule of Deductions by Type
Schedule of Changes in Fiduciary Net Position
Schedule of Benefits and Refunds by Type
Schedule of Average Benefit Payments
History of Membership

# STATISTICAL SECTION

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## CONTENTS

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This part of MMRP's annual comprehensive financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about MMRP's overall financial health.

### FINANCIAL TRENDS

These schedules contain trend information to help the reader understand how MMRP's financial performance and fiscal health has changed over time. Schedules included are:

- Schedule of Pension Plan Additions by Source
- Schedule of Pension Plan Deductions by Type
- Schedule of Changes in Fiduciary Net Position – Pension Plan
- Schedule of Pension Benefit and Refunds by Type

### OPERATING INFORMATION

These schedules contain contextual information to assist the reader's understanding of how MMRP's financial information relates to the combination of participating members and the benefits it provides. Schedules included are:

- Schedule of Average Benefit Payments
- History of Membership

# STATISTICAL SECTION

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## SCHEDULE OF ADDITIONS BY SOURCE

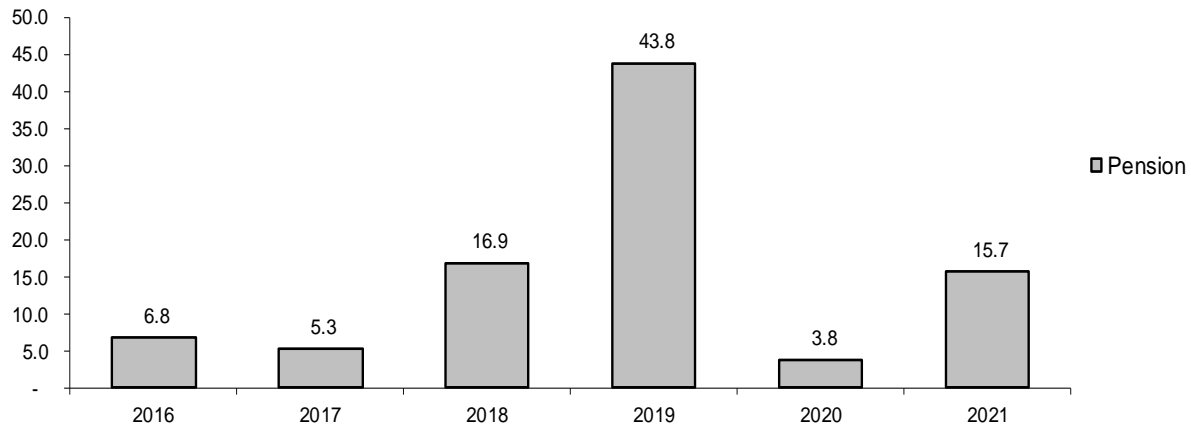
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Fiscal Year Ended Sept. 30	Employer Contributions	Net Investment & Other Income	Total
2016	\$ 6,790,331	\$ 11,770	\$ 6,802,100
2017	5,244,800	84,556	5,329,356
2018	16,244,800	691,640	16,936,440
2019	41,044,800	2,711,414	43,756,214
2020	1,000,000	2,805,718	3,805,718
2021	657,103	15,012,439	15,669,542

### TOTAL ADDITIONS

Year Ended September 30

(in millions)



This schedule is required to show information for ten years; additional years will be displayed as they become available.

# STATISTICAL SECTION

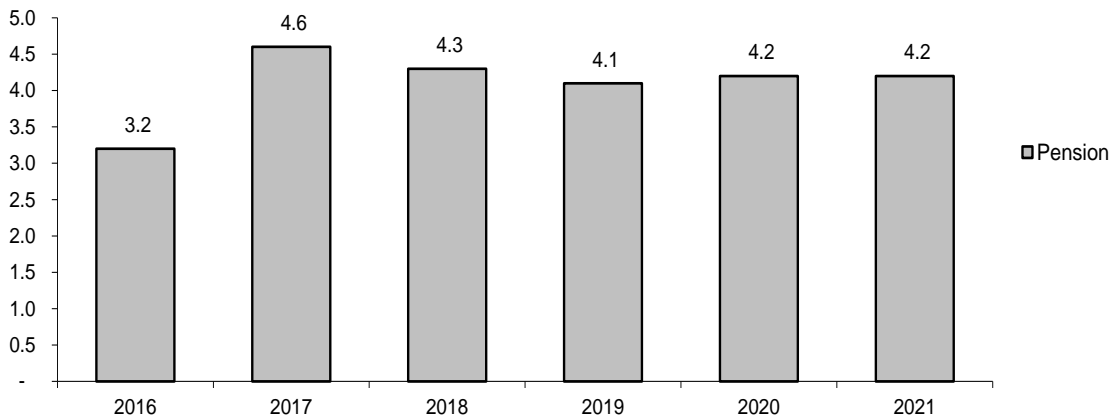
## SCHEDULE OF DEDUCTIONS BY TYPE

<b>Fiscal Year Ended Sept. 30</b>	<b>Benefit Payments</b>	<b>Administrative and Other Expenses</b>	<b>Total</b>
2016	\$ 2,960,944	\$ 250,047	\$ 3,210,991
2017	4,089,801	481,605	4,571,406
2018	3,939,098	396,294	4,335,392
2019	3,895,264	223,363	4,118,627
2020	3,989,252	203,045	4,192,297
2021	4,029,430	200,485	4,229,914

### TOTAL DEDUCTIONS

Year Ended September 30

(in millions)



This schedule is required to show information for ten years; additional years will be displayed as they become available.

# STATISTICAL SECTION

## SCHEDULE OF CHANGES IN FIDUCIARY NET POSITION

### SCHEDULE OF CHANGES IN FIDUCIARY NET POSITION – PENSION PLAN\*

(in thousands)

	Fiscal Year					
	2021	2020	2019	2018	2017	2016
Employer contributions	\$ 657	\$ 1,000	\$ 41,045	\$ 16,245	\$ 5,245	\$ 6,790
Net investment income	15,012	2,805	2,711	569	77,798	11
Miscellaneous income	-	1	1	123	7	1
<b>Total Additions</b>	<u>15,670</u>	<u>3,806</u>	<u>43,756</u>	<u>16,936</u>	<u>5,329</u>	<u>6,802</u>
Pension benefits	4,029	3,989	3,895	3,939	4,090	2,961
Administrative and Other Expenses	200	203	223	396	482	250
<b>Total Deductions</b>	<u>4,230</u>	<u>4,192</u>	<u>4,119</u>	<u>4,335</u>	<u>4,571</u>	<u>3,211</u>
<b>Changes in net position</b>	<u>\$ 11,440</u>	<u>\$ (387)</u>	<u>\$ 39,638</u>	<u>\$ 12,601</u>	<u>\$ 758</u>	<u>\$ 3,591</u>

\*Additional years will be displayed as soon as they become available.

# STATISTICAL SECTION

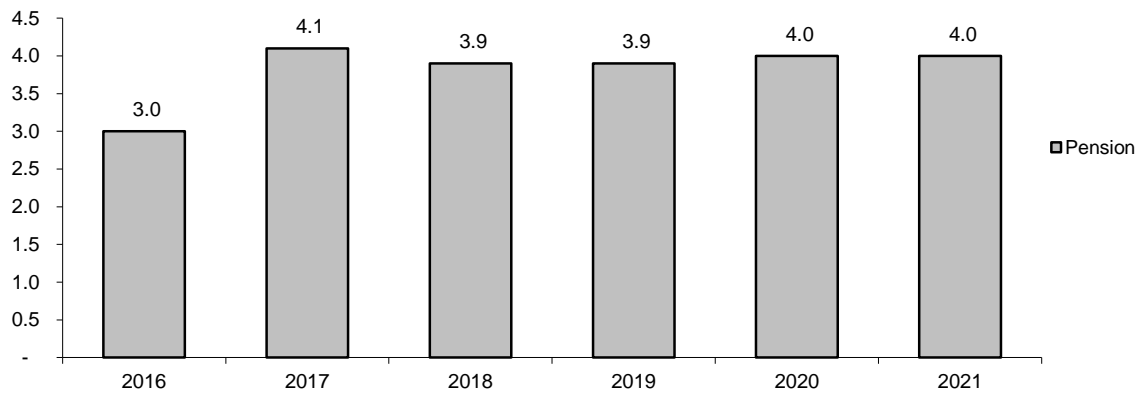
## SCHEDULE OF BENEFITS AND REFUNDS BY TYPE

### SCHEDULE OF PENSION BENEFITS AND REFUNDS BY TYPE

Fiscal Year Ended Sept. 30	Regular Benefits	Survivor Benefits	Refunds		Total
			Employee Contribution	Retired Benefits	
2016	\$ 2,613,078	\$ 347,866	\$ -	\$ -	\$ 2,960,944
2017	3,475,981	613,821	-	-	4,089,801
2018	3,413,136	523,417	-	2,545	3,939,098
2019	3,409,812	485,452	-	-	3,895,264
2020	3,523,557	465,695	-	-	3,989,252
2021	3,557,944	471,485	-	-	4,029,430

### TOTAL BENEFIT DEDUCTIONS

Year Ended September 30  
(in millions)



This schedule is required to show information for ten years; additional years will be displayed as they become available.



# STATISTICAL SECTION

## SCHEDULE OF AVERAGE BENEFIT PAYMENTS

### SCHEDULE OF AVERAGE BENEFIT PAYMENTS - PENSION

Payment Periods	Credited Service (Years) as of September 30					Total
	less than 15	15-20	20-25	25-30	30+	
Period 10/1/15 to 9/30/16:						
Average Monthly Benefit	\$ 49	\$ 49	\$ 53	\$ 68	\$ 146	\$ 76
Number of Retirants	16	30	2,487	882	910	4,325
Period 10/1/16 to 9/30/17:						
Average Monthly Benefit	\$ 49	\$ 49	\$ 52	\$ 71	\$ 146	\$ 75
Number of Retirants	18	36	2,529	887	892	4,362
Period 10/1/17 to 9/30/18:						
Average Monthly Benefit	\$ -	\$ 49	\$ 52	\$ 69	\$ 127	\$ 71
Number of Retirants	-	38	2,595	914	908	4,455
Period 10/1/18 to 9/30/19:						
Average Monthly Benefit	\$ -	\$ 49	\$ 52	\$ 69	\$ 136	\$ 73
Number of Retirants	-	41	2,628	932	928	4,529
Period 10/1/19 to 9/30/20:						
Average Monthly Benefit	\$ 50	\$ 49	\$ 52	\$ 69	\$ 140	\$ 73
Number of Retirants	18	45	2,617	943	924	4,547

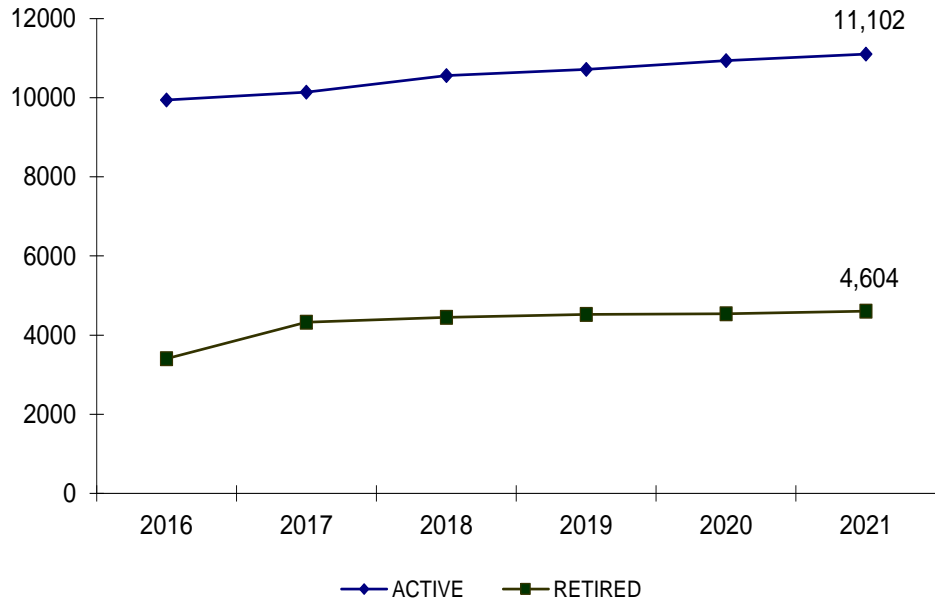
Source: Gabriel Roeder Smith & Co.

This schedule is required to show information for ten years; additional years will be displayed as they become available.

# STATISTICAL SECTION

## HISTORY OF MEMBERSHIP

Fiscal Year Ended September 30



Source: Gabriel Roeder Smith & Co.

This schedule is required to show information for ten years; additional years will be displayed as they become available.

# **ACKNOWLEDGMENTS**

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The *Michigan Military Retirement Provisions Annual Comprehensive Financial Report* is prepared by Financial Services, Fiscal Management Division. Staff of the division for the fiscal year 2021 report included:

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Jacqueline Huhn, Director  
Aver Hamilton, Accounting Manager  
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## **Accountants:**

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## **Technical and Support Staff:**

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This report may be viewed online at: [www.michigan.gov/ors](http://www.michigan.gov/ors)