



**MICHIGAN OFFICE OF  
RETIREMENT SERVICES**  
*Big Plans. Small Steps.*



# Summary Annual Report

for the Michigan Public School Employees' Retirement System, a Pension and  
Other Post-employment Benefit Trust Fund of the State of Michigan  
Fiscal Year Ended Sept. 30, 2019

Prepared By  
Michigan Office of Retirement Services  
Department of Technology, Management and Budget

# A Message From The Director



Director Anthony Estell

The Department of Technology, Management and Budget (DTMB) Office of Retirement Services (ORS) is pleased to present the Summary Annual Report for the Michigan Public School Employees' Retirement System (MPSERS), henceforth referred to as the System, for the fiscal year (FY) ended Sept. 30, 2019.

ORS provides retirement and related retiree healthcare plans to help more than 675 public school employers attract, retain, and reward a highly qualified workforce.

## Average Admin. Cost

**\$65** per member-  
retiree

ORS is able to cost-effectively provide these benefits to retirees. In 2018, the total defined benefit (DB) pension administration cost was \$65 per active member and retiree. This was \$32 below the peer average of \$97 per active member and retiree (CEM Benchmarking).

## Accomplishments

### Healthcare Strategic Initiative Development

ORS staff worked with vendor partners and industry experts to develop the 2020-2021 Strategic Initiative Package. The package includes benefit changes that are necessary in order to deliver a high-quality healthcare plan and meet the actuarially determined cost goal for the coming years. The objective is to continue to provide a plan that is affordable to both the members and the schools who fund the coverage. The changes include expanded coverage for vaccines, offering online physician visits for certain interactions, and increasing the lifetime maximum for outpatient services. Additionally, the changes include an increase to the pharmacy out-of-pocket maximum, which will in turn allow the System to take advantage of increased federal dollars when members reach Medicare's catastrophic coverage level.

### Reduced Pharmaceutical Drug Pricing

ORS staff worked with the System's pharmacy vendor, OptumRx, and industry experts to compare current pharmaceutical drug prices against pricing in the current marketplace. Through negotiations, OptumRx agreed to reduce the plan's drug pricing in order to provide competitive pricing based on current marketplace rates. This resulted in projected annual savings of \$100 million.

### Employer E-Newsletter

In February 2019, ORS launched the online newsletter for public school employers, *MPSERS Employer News*. The e-newsletter was created to improve and consolidate communications from ORS to payroll staff. The e-newsletter is the source for most news, changes in procedures, legislative updates, tools that make reporting tasks easier, and routine notifications. Regular

# Accomplishments, Continued

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email messages will still be sent for urgent matters or for information that applies to only one type of employer or a targeted subset of employers. The e-newsletter has improved routine communications through the timely delivery of a consistent product, setting communication expectations and significantly reducing the number of overall employer emails.

## **Paperless Options**

A new feature was implemented in miAccount that lets customers opt out of receiving paper direct deposit statements as well as paper *Form 1099-R* annual statements. Both direct deposit and *Form 1099-R* statements are available electronically to view and print in miAccount for current and past years. If customers choose the paperless option, their *Form 1099-R* statements are available online a week or two before the printed one is mailed. They can also view their pension payment history on a monthly basis versus receiving a paper statement four to five times a year. In addition to providing the member with more personalized information faster, going paperless helps the environment and reduces print and mailing costs.

## **New E-Learning Modules**

Customer Service now has online modules available to help train staff members. The training modules use realistic scenarios in simulated environments so staff members can practice completing various transactions and processes. The training helps ensure Customer Service staff members are completing tasks accurately and efficiently, improving customer experiences through consistent account handling. Upon completion of each module, staff members take a quiz to evaluate their learning.

## **Mailing Security Process Improvement**

An information security change was made that will improve end-to-end processing of the daily mailings and ensure that ORS customers are getting their mail and only their mail. The solution uses 2-D bar codes which are tracked by the automated print and mail equipment to ensure that each printed page is accounted for as it passes through various machines, reducing the risk of mail going to the wrong customer.

# Honors

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## **Signature Award Winner**

ORS with Voya Financial won a 2019 Signature Award from the Plan Sponsor Council of America. We took first place in the Overcoming Obstacles category for our MPSERS outreach campaign. An annual review of plan data revealed that the approximately 72,000 participants in the Defined Contribution (DC) plan in the public school population did not engage with their accounts or online tools as much as their state of Michigan employee counterparts. The outreach campaign used a variety of communication methods to reach public school employees and human resources administrators. These methods included publications, a telephone campaign, meetings for public school employees, emails, and an innovative social media campaign on LinkedIn. Member behaviors exceeded expectations and surpassed industry benchmarks for both click-through rate and engagement rate. The Plan Sponsor Council of America, which is part of the American Retirement Association, is the

leading association for sponsors of voluntary, employer-based retirement plans in the U.S.

## **Government Finance Officers Association Award**

The Government Finance Officers Association (GFOA) of the United States and Canada awarded the System with the Certificate of Achievement for Excellence in Financial Reporting for our FY 2018 Comprehensive Annual Financial Report (CAFR). This marks the 28th consecutive year ORS has received this prestigious award.

## **Public Pension Standards Award**

ORS was awarded the 2019 Standards Award from the Public Pension Coordinating Council's Standards Program (PPCC) for both funding and administration. ORS has received this award every year since 2004. The PPCC Standards reflect expectations for public retirement system management and administration and serve as a benchmark for all DB public plans to be measured.

# About The Michigan Public School Employees' Retirement System

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This report is issued in compliance with the Public Employee Retirement System Investment Act, 1965 Public Act (PA) 314, and the Public School Employees Retirement Act, 1980 PA 300, both as amended. The content comes from the complete MPSERS 2019 CAFR, available on our website at [Michigan.gov/ORSSchools](https://Michigan.gov/ORSSchools), the Annual Actuarial Valuations as of Sept. 30, 2019, and additional analysis performed after Sept. 30, 2019.

Public school employees' pensions are protected by Michigan's Constitution. The System's net assets are held in trust to meet future benefit payments.

The State of Michigan Investment Board is the investment fiduciary and custodian of all investments of the System pursuant to state law.

# Executive Summary

The present value of the assets as of Sept. 30, 2019, was \$58.3 billion for pension and other post-employment benefit (OPEB), and the total actuarial accrued liability (AAL) was \$98.2 billion resulting in a total unfunded actuarial accrued liability (UAAL) of \$39.8 billion.

The System’s assets increased by \$1.7 billion in FY 2019. Asset increases were primarily due to investment income and contributions from employers and employees. The overall AAL for pension and OPEB increased by \$1.1 billion primarily due to differences between expected and actual actuarial results.

The pension funding ratio declined slightly by 0.30 percentage points primarily as a result of investment and demographic losses. The OPEB funding ratio improved by 9.19 percentage points primarily

## Statement of Assets and Liabilities

FY 2019	Pension <sup>1</sup>	OPEB <sup>2</sup>
AAL	\$85,201,719,662	\$13,009,658,665
Present Value of Assets	\$51,421,988,660	\$6,957,871,742
UAAL	\$33,779,731,002	\$6,051,786,923
Funding Ratio	60.40%	53.48%

FY 2018	Pension <sup>3</sup>	OPEB <sup>4</sup>
AAL	\$83,375,340,066	\$13,748,938,948
Present Value of Assets	\$50,630,333,694	\$6,089,485,632
UAAL	\$32,745,006,372	\$7,659,453,316
Funding Ratio	60.70%	44.29%

1. 2019 MPSERS Pension Actuarial Valuation, Page B-1.  
 2. 2019 MPSERS OPEB Actuarial Valuation, Page A-2.  
 3. 2018 MPSERS Pension Actuarial Valuation, Page B-1.  
 4. 2018 MPSERS OPEB Actuarial Valuation, Page A-2.

due to a \$2 billion experience gain in the retiree health care plan in addition to federal revenues from participation in the Medicare Advantage plan.

# Membership

**Members of this DB plan include employees of:**

- K-12 public school districts.
- Intermediate school districts.
- District libraries.
- Public school academies/charter schools.
- Community colleges.

**In some instances, membership includes certain employees who began working for the following universities before Jan. 1, 1996:**

- Central Michigan University.
- Eastern Michigan University.
- Ferris State University.
- Lake Superior State University.
- Michigan Technological University.
- Northern Michigan University.
- Western Michigan University.

**Plan Membership and Retirement Allowances as of Sept. 30, 2019**

<b>Membership<sup>1</sup></b>	
Retirees and Beneficiaries Currently Receiving Benefits	
Regular Benefits	194,374
Survivor Benefits	18,588
Disability Benefits	5,975
<b>Total</b>	<b>218,937</b>
Current Employees	
Vested	96,319
Non-vested	81,362
<b>Total<sup>2</sup></b>	<b>177,681</b>
Inactive Employees	
Entitled to benefits and not yet receiving them	18,279
<b>Total All Members</b>	<b>414,897</b>

1. CAFR for the FY ended Sept. 30, 2019, Page 21.  
 2. Includes DB members who converted to the DC plan and employees who elected to participate only in the DC plan.

<b>Retirement Allowances<sup>3</sup></b>	
Average annual retirement allowance	\$23,237
<b>Total annual retirement allowances being paid (in thousands)</b>	<b>\$5,087,367</b>

3. Pension Actuarial Valuation for the FY ended Sept. 30, 2019, Page D-2.

# Assets And Liabilities

The System’s total assets on a market basis as of Sept. 30, 2019, were \$60.2 billion, mostly composed of cash, investments, and contributions due from employers.

Total liabilities as of Sept. 30, 2019, were \$2.5 billion and include accounts payable, unearned revenue, and obligations under securities lending.

Total net assets held in trust for pension and OPEB increased \$1.3 billion from the previous year.

**Assets and Liabilities<sup>1</sup> (Dollars In Thousands) (Combined Pension and OPEB)**

<b>Assets</b>	<b>FY 2018</b>	<b>FY 2019</b>
Cash	\$ 104,050	\$ 117,378
Receivables	373,671	418,182
Investments	56,180,698	57,421,253
Securities Lending Collateral	2,549,816	2,277,910
<b>Total Assets</b>	<b>\$ 59,208,235</b>	<b>\$ 60,234,723</b>
<b>Liabilities</b>	<b>FY 2018</b>	<b>FY 2019</b>
Warrants Outstanding	\$ -	\$ -
Unearned Revenue	2,733	2,979
Accounts Payable and Other Liabilities	200,259	204,829
Obligations Under Securities Lending	2,550,504	2,277,647
<b>Total Liabilities</b>	<b>2,753,495</b>	<b>2,485,455</b>
<b>Net Assets</b>	<b>\$ 56,454,740</b>	<b>\$ 57,749,269</b>

1. CAFR for the FY ended Sept. 30, 2019, Page 15. Liabilities in this context are exclusive of AAL for pension and OPEB. The sum total of all the line items may not equal the total due to rounding.

# Revenue And Expenditures, Change In Net Assets

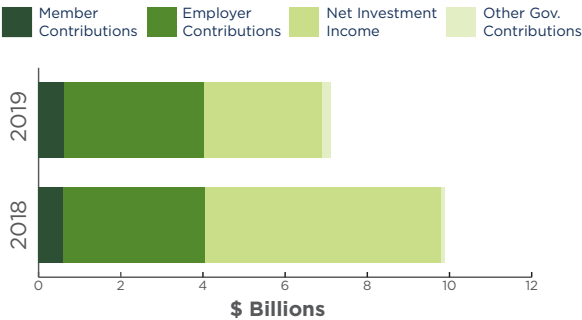
The reserves needed to finance pension and OPEB are accumulated through the collection of employer and employee contributions including earnings on investments.

Contributions and net investment income for FY 2019 totaled \$7.1 billion. The primary expenses of the System include the payment of pension benefits to members and beneficiaries, payment for health, dental and vision benefits, refunds of contributions to former members, and the cost of administering the System.

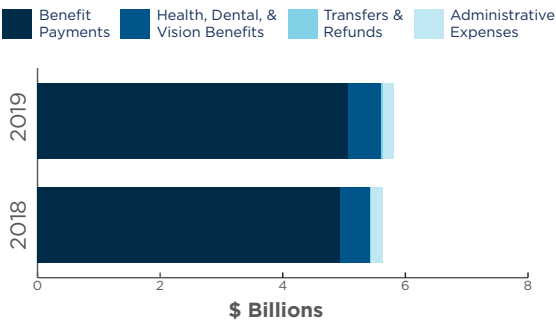
<b>Additions and Deductions<sup>1</sup> (Dollars In Thousands)</b>			
<b>Additions</b>	<b>FY 2018</b>	<b>FY 2019</b>	
Member Contributions	\$ 603,739	\$ 611,344	
Employer Contributions	3,455,217	3,414,427	
Other Governmental Contributions	96,708	233,196	
Net Investment Income (Loss)	5,730,759	2,855,383	
Miscellaneous Income	600	277	
<b>Total Additions</b>	<b>\$ 9,887,023</b>	<b>\$ 7,114,627</b>	
<b>Deductions</b>	<b>FY 2018</b>	<b>FY 2019</b>	
Pension Benefits	\$ 4,934,697	\$ 5,058,624	
Healthcare Benefits	477,066	542,034	
Refunds and Transfers to Other Systems	28,977	29,378	
Administrative and Other Expenses	181,101	190,062	
<b>Total Deductions</b>	<b>\$ 5,621,841</b>	<b>\$ 5,820,098</b>	
<b>Net Position</b>	<b>FY 2018</b>	<b>FY 2019</b>	
Net Increase (Decrease) in Net Position	\$ 4,265,182	\$ 1,294,529	
Beginning of Year	52,189,558	56,454,740	
<b>End of Year</b>	<b>\$ 56,454,740</b>	<b>\$ 57,749,269</b>	

1. CAFR for the FY ended Sept. 30, 2019, Page 16.

## Revenue



## Expenditures



# 2019 Plan Expenditures

## Plan Expenses For Fiscal Year Ended Sept. 30, 2019<sup>1</sup>

### Pension Plan Administrative and Other Expenses

Dollars In Thousands

These expenditures are the administrative costs of running the retirement system and are paid by DTMB-ORS and DTMB-Financial Services through an annual appropriation.

#### Personnel Services

Staff Salaries	\$	4,348
Retirement and Social Security		2,424
Other Fringe Benefits		855
<b>Subtotal</b>	<b>\$</b>	<b>7,627</b>

#### Professional Services

Accounting	\$	1,780
Actuarial		376
Attorney General		318
Audit		482
Consulting		391
Medical		269
<b>Subtotal</b>	<b>\$</b>	<b>3,616</b>

#### Building and Equipment

Building Rentals	\$	905
Equipment Purchase, Maintenance, and Rentals		25
<b>Subtotal</b>	<b>\$</b>	<b>931</b>

#### Miscellaneous

Travel and Board Meetings (Excluding Travel and Education for Board Members)	\$	29
Office Supplies		28
Postage, Telephone, and Other		2,207
Printing		304
Technological Support		12,996
<b>Subtotal</b>		<b>15,563</b>

Travel and Education for Board Members		4
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<b>Total Administrative and Other Expenses</b>	<b>\$</b>	<b>27,741</b>
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# 2019 Plan Expenditures, Continued

Health, Dental, and Vision Expenses	Dollars In Thousands
These expenditures are for self-insurance of the health and dental plans, and are paid from the retirement system's trust fund.	
Staff Salaries	\$ 1,386
Retirement and Social Security	773
Other Fringe Benefits	272
Consulting	1,584
Postage, Telephone, and Other	81
Health Fees	152,860
Dental Fees	5,147
Vision Fees	217
<b>Total Health, Dental, and Vision Administrative Expenses</b>	<b>\$ 162,321</b>
Investment Expenses	Dollars In Thousands
These expenditures are related to the Department of Treasury Bureau of Investments for managing the retirement system's assets, and are paid from the retirement system's trust fund.	
Real Estate Operating Expenses	\$ 1,804
Securities Lending Expenses	58,289
Other Investment Expenses	
ORS-Investment Expenses	13,737
Custody Fees	1,307
Management Fees	240,820
Research Fees	3,743
<b>Total Investment Expenses</b>	<b>\$ 319,700</b>
Benefits Paid to Members	Dollars In Thousands
These are the projected retirement benefits paid to members of the retirement system.	
Pension Benefits	\$ 5,058,624
Health Benefits	469,017
Dental/Vision Benefits	73,017
Refunds of Member Contributions	29,378
<b>Total Payments to Members</b>	<b>\$ 5,630,036</b>
Soft Dollar Expenses <sup>2</sup>	Dollars In Thousands
These expenditures are for research provided by the retirement system's service providers and are incorporated into the brokerage fees and commissions.	
<b>Total Soft Dollar Expenditures</b>	<b>\$ 0</b>
<b>Total of All Sections</b>	<b>\$ 6,139,799</b>

1. DTMB-Financial Services report. The sum total of all the line items may not equal the total due to rounding.  
2. Department of Treasury Bureau of Investments report.

# 2020 Budget For Plan Expenditures

## Budget For Plan Expenses For Fiscal Year Ending Sept. 30, 2020<sup>1</sup>

### Pension Plan Administrative and Other Expenses

Dollars In Thousands

These expenditures are the administrative costs of running the retirement system and are paid by DTMB-ORS and DTMB-Financial Services through an annual appropriation.

#### Personnel Services

Staff Salaries	\$	4,226
Retirement and Social Security		3,447
Other Fringe Benefits		1,276
<b>Subtotal</b>	<b>\$</b>	<b>8,950</b>

#### Professional Services

Accounting	\$	1,745
Actuarial		504
Attorney General		289
Audit		487
Consulting		469
Medical		498
<b>Subtotal</b>	<b>\$</b>	<b>3,992</b>

#### Building and Equipment

Building Rentals	\$	939
Equipment Purchase, Maintenance, and Rentals		51
<b>Subtotal</b>	<b>\$</b>	<b>991</b>

#### Miscellaneous

Travel and Board Meetings (Excluding Travel and Education for Board Members)	\$	70
Office Supplies		26
Postage, Telephone, and Other		1,331
Printing		272
Technological Support		10,964
<b>Subtotal</b>		<b>12,664</b>

Travel and Education for Board Members		3
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<b>Total Administrative and Other Expenses</b>	<b>\$</b>	<b>26,599</b>
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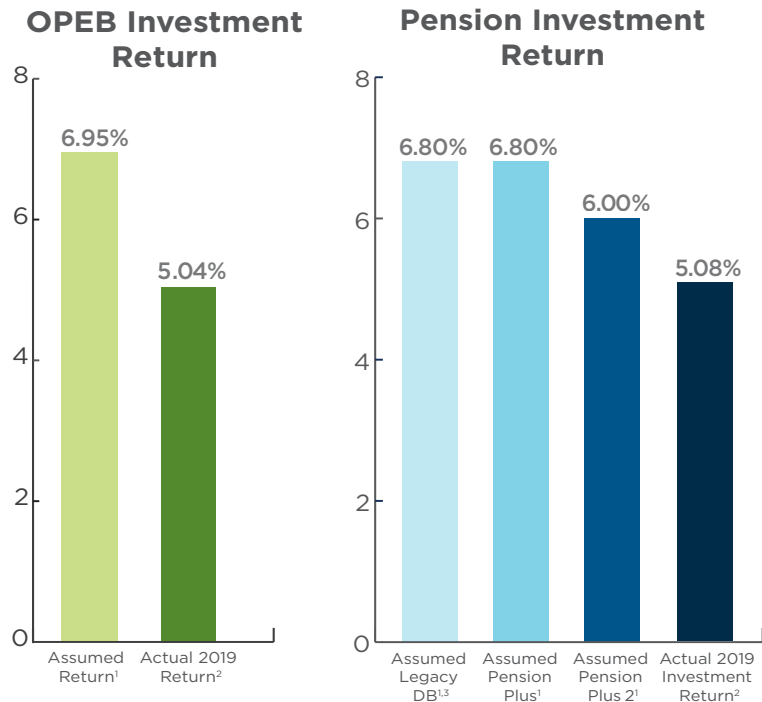
# 2020 Budget, Continued

Health, Dental, and Vision Expenses	Dollars In Thousands
These expenditures are for self-insurance of the health and dental plans, and are paid from the retirement system's trust fund.	
Staff Salaries	\$ 1,348
Retirement and Social Security	751
Other Fringe Benefits	265
Consulting	1,822
Postage, Telephone, and Other	77
Health Fees	160,503
Dental Fees	4,889
Vision Fees	258
<b>Total Health, Dental, and Vision Administrative Expenses</b>	<b>\$ 169,913</b>
Investment Expenses	Dollars In Thousands
These expenditures are related to the Department of Treasury Bureau of Investments for managing the retirement system's assets and are paid from the retirement system's trust fund.	
Real Estate Operating Expenses	\$ 1,064
Securities Lending Expenses	62,952
Other Investment Expenses	
ORS-Investment Expenses	13,710
Custody Fees	1,333
Management Fees	276,943
Research Fees	3,481
<b>Total Investment Expenses</b>	<b>\$ 359,483</b>
Benefits Paid to Members	Dollars In Thousands
These are the projected retirement benefits paid to members of the retirement system.	
Pension Benefits	\$ 5,210,383
Health Benefits	544,060
Dental/Vision Benefits	71,557
Refunds of Member Contributions	29,672
<b>Total Payments to Members</b>	<b>\$ 5,855,671</b>
Soft Dollar Expenses <sup>2</sup>	Dollars In Thousands
These expenditures are for research provided by the retirement system's service providers and are incorporated into the brokerage fees and commissions.	
<b>Total Soft Dollar Expenditures</b>	<b>\$ 0</b>
Total of All Sections	\$ 6,411,667
<p>1. DTMB-Financial Services report. The sum total of all the line items may not equal the total due to rounding.</p> <p>2. Department of Treasury Bureau of Investments report.</p>	

# Assumed And Actual Investment Returns

The Michigan Department of Treasury Bureau of Investments administers all of the System's investments in accordance with the Public Employee Retirement System Investment Act, PA 314 of 1965. The main objective is maximizing the rate of return while meeting the actuarial assumptions through maintaining a diverse portfolio, eliminating unnecessary risks, and investing prudently.

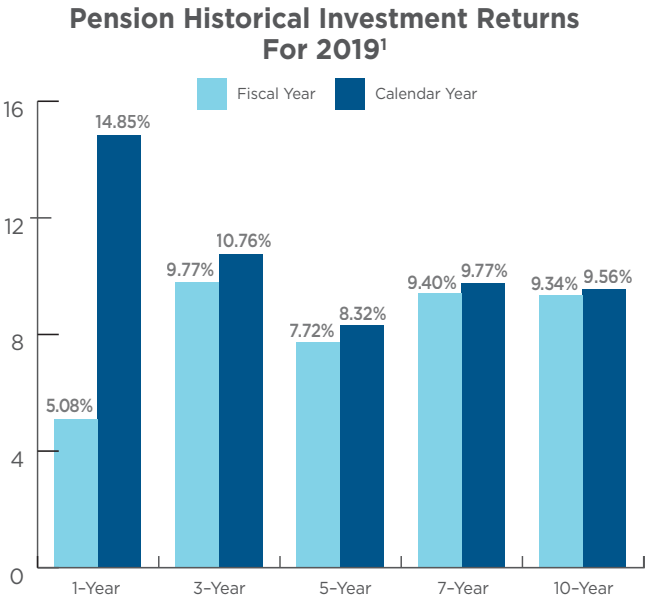
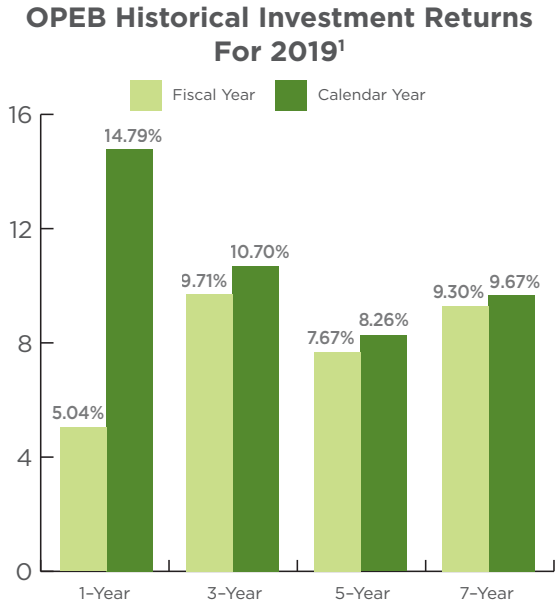
The assumed rate of return (AROR) is a key assumption used by the plan actuary in determining the employer contribution rates each year. When investments do not meet the AROR, this results in an actuarial loss for the System. The AROR for all MPSERS plans are provided in the charts in this section. The actual rate of investment return for the pension plan in FY 2019 was 5.08%. The actual rate of investment return for OPEB was 5.04%.



1. 2019 MPSERS Pension Actuarial Valuation, Section C.  
 2. Department of Treasury Bureau of Investments report.  
 3. Legacy DB refers to the plans for members hired before July 1, 2010 who opted to remain in that plan.

# Historical Investment Returns

Historical investment returns for both pension and OPEB are presented in the following charts. Because MPSERS OPEB is in the early stages of pre-funding, longer-term investment results are not available. Over time, as the plan gains more experience, longer-term investment returns will be reported.

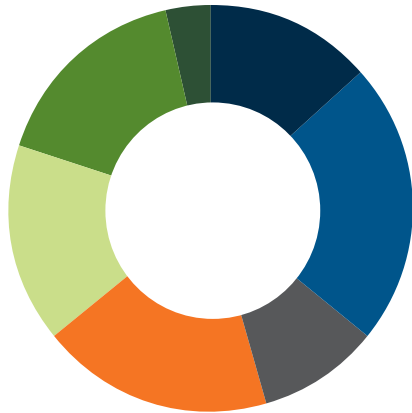


1. Department of Treasury Bureau of Investments report. These figures are shown net of fees. Information shown in the CAFR is shown gross of fees.

# Investments And Earnings

A key function of the investment fiduciary is to ensure the System’s investment portfolio is diversified. Having a diverse portfolio helps to maximize investment income responsibly while minimizing risk. Even though market performance may fluctuate, the long-term performance of the System’s portfolio is stable.

Investments and Earnings <sup>1</sup>		
	Market Value	Total Investment And Interest Income
Fixed Income Pools	\$ 7,834,210,579	\$ 658,268,913
Domestic Equity Pools	12,932,438,258	275,878,240
Real Estate and Infrastructure Pools	5,479,484,340	430,695,218
Private Equity Pools	10,702,097,493	1,065,535,457
International Equity Pools	9,188,010,955	-83,679,830
Absolute Return Pools	9,382,842,330	718,296,086
Short-Term Investment Pools	2,041,718,020	43,450,351
<b>Market Value and Net Investment Gain</b>	<b>\$ 57,560,801,975</b>	<b>\$ 3,108,444,435</b>



- Fixed Income Pools - 13.6%**
- Domestic Equity Pools - 22.5%**
- Real Estate and Infrastructure Pools - 9.5%**
- Private Equity Pools - 18.6%**
- International Equity Pools - 16.0%**
- Absolute Return Pools - 16.3%**
- Short-Term Investment Pools - 3.5%**

1. CAFR for the FY ended Sept. 30, 2019, Page 75.

# Market And Actuarial Funding Ratios

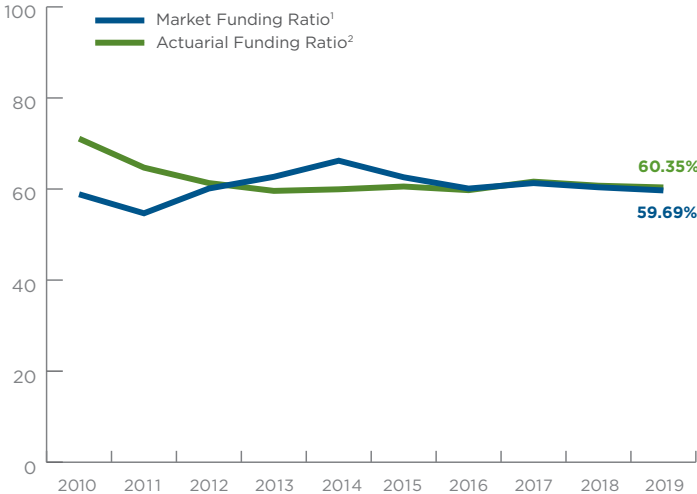
**Pension**

The market funding ratio is based on the market value of assets at FY end. The actuarial funding ratio is the best practice used by all pension plans nationwide. It incorporates a five-year smoothing period, which minimizes volatility in a pension system's funding requirements.

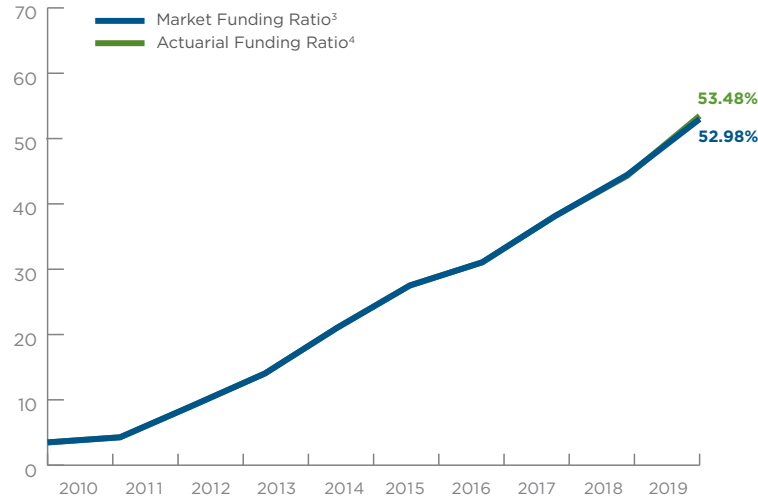
**OPEB**

Starting in FY 2013, the System began pre-funding OPEB costs, which significantly decreased the liability and increased the asset levels. Pre-funding is a best practice that invests assets and allows investment returns to help fund the plan. Many states do not pre-fund OPEB costs. This reform put Michigan on the leading edge of OPEB funding practices.

Prior to FY 2018, the market funding ratio was equal to the actuarial funding ratio. Five-year smoothing was adopted for the OPEB plan with the 2018 valuation so separate actuarial and market funding ratios will be calculated. The market value of assets as of Sept. 30, 2019, was \$6.9 billion, while the actuarial value of assets was \$7.0 billion.



1. Calculated on market value of assets.  
 2. Pension Actuarial Valuation for the FY ended Sept. 30, 2019, pages B-5 and C-10.



3. Calculated on market value of assets.  
 4. OPEB Actuarial Valuation for the FY ended Sept. 30, 2019, pages A-2 and D-1.

# Member And Employer Contributions

### Employer Contributions

Statute requires participating employers to contribute to finance the benefits of plan members. These employer contributions are determined annually by the System's actuary and are based upon level percent of payroll funding principles so the contribution rates remain stable. With the enactment of PA 181 of 2018, the UAAL will gradually shift from level percent of payroll amortization to level dollar amortization over a period of seven years.

### Definition Of Normal Cost

Normal cost is the cost of the retirement benefit a member earns each year, and is set using the AROR in addition to other actuarial assumptions. All Pension Plus, Pension Plus 2, Member Investment Plan, and some Basic plan members contribute toward the cost of their retirement benefits. After member contributions are accounted for, the employer pays the remainder of the normal cost as shown below.

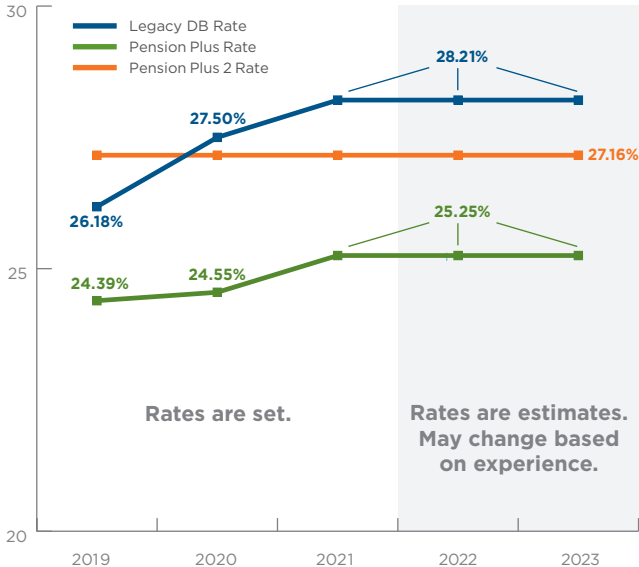
Member and Employer Pension Contributions <sup>1</sup>	
<b>Member Contributions</b>	
Weighted Average	
Legacy DB	4.79%
Pension Plus	5.18%
Pension Plus 2	6.20%
<b>Employer Contributions</b>	
Normal cost of benefits expressed as a percentage of valuation payroll	
Legacy DB	6.41%
Pension Plus <sup>2</sup>	3.49%
Pension Plus 2 <sup>2</sup>	6.20%
UAAL contribution rate expressed as a percentage of valuation payroll	
Legacy DB	28.29%
Pension Plus	28.29%
Pension Plus 2	28.29%
Valuation Payroll	
For Normal Cost	\$7,973,776,301
For UAAL	\$9,409,381,509
<sup>1</sup> Pension Actuarial Valuation for the FY ended Sept. 30, 2019, Page A-1. <sup>2</sup> This is the DB component of Pension Plus and Pension Plus 2. There is an additional 1% employer match for the DC component.	



# Contribution Rates

Contribution rates are determined actuarially, based on the economic conditions and an assumed investment return each year. Contribution rates for FY 2020 and FY 2021 have been calculated, provided to the employers, and published on the employer website.

Rates for FY 2022 and FY 2023 are estimated using a projection of the most recent data available.



# Actuarial Assumptions

Actuarial valuations for both the pension and OPEB plans involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. In accordance with Section 41(1) of the MPSERS statute (Act 300 of the Public Acts of 1980, as amended), the actuarial assumptions are adopted by the retirement board and the DTMB director after consultation with the actuary and the state treasurer. Examples include assumptions about future employment, investment performance, and the healthcare cost trend.

## Actuarial Assumptions for Fiscal Year Ended Sept. 30, 2019

Pension and OPEB <sup>1,2</sup>	
Actuarial Cost Method	Entry Age, Normal
Amortization Method	Level Percent of Payroll
Payroll Growth Assumption <sup>3</sup>	3.50% reduced to 0% by Sept. 30, 2025
Amortization Period	Closed Period, Ending Sept. 30, 2038
Asset Valuation Method	5-Year Smoothed
Wage Inflation Rate	2.75%
OPEB	
Healthcare Cost Trend Rate <sup>2</sup>	7.00% Year 1 graded to 3.50% Year 15, 3.00% Year 120 and thereafter
AROR—Closed <sup>2,4</sup>	6.95%
Pension—AROR <sup>1</sup>	
Legacy DB plan—Closed	6.80%
Pension Plus—Closed	6.80%
Pension Plus 2—Open	6.00%

- MPSERS Pension Actuarial Valuation for the FY ended Sept. 30, 2019.
- MPSERS OPEB Actuarial Valuation for the FY ended Sept. 30, 2019.
- PA 181 of 2018 enacted a gradual phase-in reduction to the payroll growth assumption to 0% in 50 basis point increments beginning with the Sept. 30, 2019, valuations. Once the 0% payroll growth assumption is fully phased-in, the amortization method for both pension and OPEB will be level dollar.
- The OPEB plan closed to employees first hired on or after Sept. 4, 2012. These employees participate in the Personal Healthcare Fund and may become eligible for a lump sum payment into a Health Reimbursement Account upon their first termination from employment (\$1,000 with at least 10 years of service if under age 60; \$2,000 with at least 10 years of service if age 60 or older). These employees have the option of enrolling in the System's retiree healthcare at full cost at termination.

# Investment Service Providers

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A service provider is any individual, third-party agent or consultant, or other entity that receives direct or indirect compensation for consulting, investment management, brokerage, or custody services related to the System's assets.

5AM Ventures	BTIG	Flagship Ventures
Accel Partners	Cantor Fitzgerald	Fortress Investment Group LLC
Advent International Corp.	Capital Institutional Services Inc.	Fox Paine & Company LLC
AEW Capital Management LP	Capri Capital Partners LLC	Freeman Spogli & Co.
Affinity Equity Partners	The Carlyle Group LP	FTN Financial
Ancora Advisors LLC	Carlyle Investment Management LLC	Gateway Capital Management
Aon Hewitt	Centerbridge	Genstart Capital LLC
Apax Partners Worldwide LLP	Centerbridge Capital Partners	Goldman Sachs Group Inc.
Apollo Capital Management LP	Cerberus Capital Management LP	Greenspring Associates
Apollo Global Management Inc.	Charlesbank Capital Partners	Grosvenor Capital Management
Apollo-Stonetower	CIE Management-BC Partners	GSO Capital Partners
Arboretum Ventures	CIM Investment Management Inc.	H.C. Wainwright & Co.
ArcLight Capital Partners LLC	Citigroup Global Markets Inc.	HarbourVest Partners LLC
Ardian	Clarion Partners	HarbourVest TOPE LLC
Ares Management LLC	Clarkston Capital Partners LLC	Harvest Partners LLC
Ark Investment Management LLC	Coller Capital	Heitman Capital Management LLC
Asana Partners	Columbia Management	Highbridge Principal Strategies
Attucks Asset Management LLC	Convergex Group LLC	Hilltop Securities Inc.
Avanath Capital Management LLC	CoStar Realty Information Inc.	Hopen Life Sciences Ventures
Axiom Asia Private Capital	Cowen & Co. LLC	HPS Investment Partners III LLC
Bank of America Merrill Lynch	Credit Suisse Group	Huron Capital Partners LLC
Bank of Montreal	Credit Suisse-Commercial Paper	ICG Advisors LLC
Barclays Capital	Crescent Capital Group	InSight Venture Partners
Barings	Crescent Direct Lending	Invesco Ltd.
Basalt Infrastructure Partners LLP	CVC Capital Partners	JANA Partners LLC
BB&T Capital Markets	Czech Asset Management LP	JANA Special Situations Management
BC Partners	D.A. Davidson Companies	J.P. Morgan
Beacon Capital Partners LLC	Dalmore Capital Limited	J.P. Morgan Asset Management
Bentall Kennedy	Deutsche Bank	J.P. Morgan Private Equity Fund
Beringea	Dodge & Cox	Services
Berkshire Partners LLC	Domain Capital Advisors LLC	Kayne Anderson Capital Advisors LP
BGC Financial	Domain Mercury/Ploutos	KBS Realty Advisors
Bivium Capital Partners LLC	Drexel Hamilton	Kelso & Company
BlackRock	Effissimo	Kensington Realty Advisors
BlackRock Financial Management	EleganTree Fund	Kevin Miller Financial Services
Blackstone Alternative Asset	EnCap Investments LP	Khosla Ventures
Management LP	EnTrust Capital	Kohlberg, Kravis, Roberts & Co.
The Blackstone Group Inc.	Fidelity Institutional Asset	L&B Realty Advisors LLP
BMO Capital Markets	Management	Landmark Realty Advisors
BNP Paribas	FIMI Opportunity Funds	LaSalle Investment Management
Bridgepoint Capital	FirstMark Capital	Lazard Asset Management
BroadRiver Asset Management LP	Fisher Investments	Lead Edge Capital
Brookfield Asset Management Inc.	Five Star Realty Partners	Leonard Green & Partners LP

## Investment Service Providers, continued

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LGT Capital Partners	PitchBook	TPG Real Estate Advisors
Lightspeed Venture Partners	Preqin	TPG TSSP
Lombard International Life Assurance Company	Principal CMBS	TPG Inc.
Lonestar	Principal Financial Group	Tradition Securities
Loomis Sayles & Company	Pritzker Group	Transwestern Investment Group
Los Angeles Capital Management	Proprium Capital Partners LP	Trilantic Capital Management LLC
Lubert-Adler Management Company	Prudential	True North Management Group
Marathon Asset Management	Prudential Fixed Income	Trusted Insight
Marathon London	Public Pension Capital	TSG Consumer Partners
MarketAxess Corporation	R.W. Baird	Turnbridge Capital Management LLC
Martin Currie	Raymond James	U.S. Bank
MatlinPatterson Global Advisors	RBC Capital Markets	Veritas Capital Fund Management LLC
MBS Securities	Renaissance Venture Capital	Vida Capital Inc.
Mellon Capital Management	Rhone Capital	Visium Capital Management
Menlo Management Partners	Rialto Capital	Vista Equity Partners
Merit Energy Company	Ridgewood Capital Management LLC	Warburg Pincus LLC
Meritech Capital Partners	Ridgewood Energy	Warwick Energy Group
Mesirow Financial	Riverside	Wayne Co.
Metropolitan West Asset Management	The Rohatyn Group	Wellington Trust Company
MFR Securities	RPEP Energy & RPEP Holdings	Wells Fargo
MI Growth Capital Partners SBIC	Sanford C. Bernstein & Co. LLC	Western National Group
Mischler Financial Group	Science Media LLC	
Morgan Stanley	Scotiabank	
Morgan Stanley Smith Barney LLC	Seizert Capital Partners	
Multi-Bank Securities Inc.	Shamrock Capital Advisors LLC	
Munder Capital Management AKA	Silver Lake	
Victory Capital Management Inc.	SJC Direct Lending & Onshore	
Napier Park Global Capital	SK Capital Partners LP	
Natural Gas Partners	Societe Generale	
New Leaf Venture Partners	Southwest Securities Inc.	
Nordic Capital	Sprott Resource	
NorthPointe Capital	State Street Bank	
Oak Investment Partners	State Street Global Advisors	
Oaktree Capital Management LLC	Stifel	
Oppenheimer	Stockbridge Capital Group	
Orchard Global Asset Management	Stonepeak Advisors LLC	
Orion Resource Partners	Sycamore Partners	
OTA Ltd Partnership	T. Rowe Price	
Paladin Realty Partners LLC	T. Rowe Price Trust Company	
Parallel Resource Partners LLC	Tahquamenon	
Parthenon Capital Inc.	TH Real Estate Limited	
Peninsula Capital Partners LLC	The John Buck Company	
Permira	The Riverside Company	
PIMCO	The TCW Group Inc.	
Piper Jaffray	Thomas Bravo	
	TICP Fund	



## **Office of Retirement Services**

Department of Technology, Management and Budget  
Director Anthony Estell

### **Our Purpose**

ORS is an innovative retirement organization driven to empower our customers for a successful today and a secure tomorrow.

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