



**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 benefits trust fund of the state of Michigan
fiscal year ended Sept. 30, 2020

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

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, 2020.

ORS provides retirement and related retiree healthcare plans to help more than 690 public school employers attract, retain, and reward a highly qualified workforce.

Average admin. cost
\$72 per active member/retiree

ORS is able to cost-effectively provide these benefits to retirees. In 2019, the total defined benefit (DB) pension administration cost was \$72 per active member and retiree. This was \$32 below the peer average of \$104 per active member and retiree (CEM Benchmarking).

Accomplishments

CARES Act implementation

ORS implemented relief provisions related to the pandemic through the federal Coronavirus Aid, Relief, and Economic Security (CARES) Act. Participants in the State Employees' Retirement System, Michigan Public School Employees' Retirement System, Judges Retirement System, Legislative Retirement System, State Police Retirement System, and Educational Achievement Authority were eligible to take a one-time CARES Act loan from their State of Michigan 401(k) and/or 457 Plan accounts. To assist plan members financially affected by the pandemic, additional loan and distribution options were made available to 401(k) and 457 Plan participants, as well as the deferment of loan payments until the end of the year.

COVID-19 pandemic impact

In response to the COVID-19 pandemic, ORS utilized the Incident Management Plan governance to organize plans for response, business continuity, and recovery. In four days, ORS successfully transitioned 165

ORS employees from working in the office to working from home. To facilitate this transition, ORS developed a process for taking inventory of equipment, packing, and loading it into staff vehicles. To support internal communications, the ORS executive team implemented weekly video updates for staff. Customer Education staff recorded and posted closed-captioned member presentations to the ORS website to replace in-person presentations and partnered with Disability Determination Services to create a process to ensure continued disability file reviews. ORS staff successfully developed and implemented alternatives to walk-in services and in-person workshops to educate state of Michigan, Michigan public school, and state police customers about their retirement plans.

Streamlined survivor benefit process

ORS improved the process when there is an overpayment issued on the retiree's behalf upon their death. Instead of requiring the deceased retiree's survivor to return any overpaid pension

Accomplishments, continued

payments for which the retiree was not entitled to after their death, ORS can set up a recovery against the survivor's benefit to recoup the overpaid funds.

MPSERS cost-share waivers

ORS voluntarily implemented cost-share waivers to ensure members maintained adequate access to healthcare during the pandemic and cost was not a barrier to treatment. These waivers were applied to several services including COVID-19 treatment, telehealth medical and behavioral health services, primary care and behavioral health office visits, and in-office X-ray and lab services from July 1, 2020, until at least June 30, 2021.

Electronic workshops

As news of the pandemic spread in early March, ORS cancelled all scheduled in-person retirement information meetings. The outreach and instructional design teams moved quickly to create and record the *Planning Your Retirement (PYR)* workshop for MPSERS DB plan members and the *Pre-Retirement Orientation (PRO)* workshop for state of Michigan DB plan members. The online *PYR* workshop was completed and available on the website by March 13, 2020. The online *PRO* was completed by March 23, 2020. More than 1,300 retirement plan members have registered for the online workshops.

Healthcare contract renewals

ORS staff successfully renewed and renegotiated vendor contracts resulting in a combined savings of \$4,500,000 while maintaining the same level of benefits to members. The Blue Cross Medical and OptumRx contracts were extended through 2021 and 2022. Both HMO vendor partners (Blue Care Network and Priority Health) opted to renew in

2020 and will continue being an option in 2021. The successful renewal process ensures that approximately 34,000 public school retirees will continue to have access to the health plan of their choice.

Employer e-newsletter survey

ORS surveys MPSERS reporting units every year. The March 2020 survey revealed that 88% of the survey respondents indicated that ORS provides the right resources, tools, and information for reporting, an 11% improvement over the last year. Ninety percent of respondents said they were satisfied with the services ORS provided to their reporting unit — a 7% improvement over last year. The MPSERS *Employer News*, an e-newsletter introduced in February 2019, was also described as extremely valuable, very informative, and a great addition in helping reporting units perform their tasks.

Electronic Connections newsletter

ORS previously mailed the *Connections* newsletter twice each year — in June and December — along with direct deposit statements to more than 290,000 recipients. Leadership and Customer Education staff began looking at other feasible options to deliver the newsletter on time when it became apparent operations could be impacted by the pandemic. DTMB, Print and Mail Management were not yet sure what its resource limitations would be. ORS staff and leadership discussed the options and weighed the costs and benefits of continuing to deliver the newsletter by mail. With the need to provide budget savings, an electronic-only version became the logical and responsible choice. ORS delivered the first electronic format *Connections* newsletter in June 2020.

Honors

Signature Award

ORS with Voya Financial won a 2020 Signature Award from the Plan Sponsor Council of America. ORS and Voya 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 of the United States and Canada awarded the System with the Certificate of Achievement for Excellence in Financial Reporting for our FY 2019 comprehensive annual financial report. This marks the 29th consecutive year ORS has received this prestigious award.

Public Pension Standards Award

ORS was awarded the 2020 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

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 contents come from the complete MPSERS 2020 comprehensive annual financial report, available on our website at Michigan.gov/ORSSchools, the annual actuarial valuations as of Sept. 30, 2020, and additional analysis performed after Sept. 30, 2020.

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, 2020, was \$60.8 billion for pension and other post-employment benefits (OPEB), and the total actuarial accrued liability (AAL) was \$98.2 billion resulting in a total unfunded actuarial accrued liability (UAAL) of \$37.4 billion.

The System’s assets increased by \$2.4 billion in FY 2020. Asset increases were primarily due to an increase in employer contributions and a reduction in healthcare expenses. The overall AAL for pension and OPEB increased slightly by \$11 million primarily due to a mix of positive and negative actuarial outcomes.

The pension funding ratio increased slightly by 0.50 percentage points primarily as a result of increased employer contributions. The OPEB funding ratio improved by 15.34 percentage points primarily due to reduced healthcare expenses during the year.

Statement of assets and liabilities		
FY 2020	Pension¹	OPEB²
AAL	\$86,337,689,863	\$11,884,887,341
Present value of assets	\$52,587,345,269	\$8,178,804,782
UAAL	\$33,750,344,594	\$3,706,082,559
Funding ratio	60.90%	68.82%
FY 2019	Pension³	OPEB⁴
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%

1. 2020 MPSERS Pension Actuarial Valuation, Page B-1.
 2. 2020 MPSERS OPEB Actuarial Valuation, Page A-2.
 3. 2019 MPSERS Pension Actuarial Valuation, Page B-1.
 4. 2019 MPSERS OPEB Actuarial Valuation, Page A-2.

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, 2020

Membership¹

Retirees and beneficiaries currently receiving benefits	
Regular benefits	196,604
Survivor benefits	19,018
Disability benefits	5,856
Total	221,478
Current employees	
Vested	93,861
Non-vested	74,341
Total²	168,202
Inactive employees	
Entitled to benefits and not yet receiving them	17,054
Total all members	406,734

1. Comprehensive annual financial report for the FY ended Sept. 30, 2020, Page 21.
2. Includes DB members who converted to the DC plan and employees who elected to participate only in the DC plan.

Retirement allowances³

Average annual retirement allowance	\$23,533
Total annual retirement allowances being paid (in thousands)	\$5,212,106

3. Pension Actuarial Valuation for the FY ended Sept. 30, 2020, Page D-1.

Assets and liabilities

The System's total assets on a market basis as of Sept. 30, 2020, were \$62.2 billion, mostly composed of cash, investments, and contributions due from employers.

Total liabilities as of Sept. 30, 2020, were \$2.7 billion and include accounts payable, unearned revenue, and obligations under securities lending.

Total net assets held in trust for pension and OPEB increased \$1.6 billion from the previous year.

Assets and liabilities¹ (dollars in thousands) (combined pension and OPEB²)

Assets	FY 2019	FY 2020
Cash	\$ 117,378	\$ 135,140
Receivables	418,182	741,352
Investments	57,421,253	58,828,612
Securities lending collateral	2,277,910	2,452,152
Total assets	\$ 60,234,723	\$ 62,157,256
Liabilities	FY 2019	FY 2020
Unearned revenue	\$ 2,979	\$ 4,605
Accounts payable and other liabilities	204,829	225,243
Obligations under securities lending	2,277,647	2,452,152
Total liabilities	2,485,455	2,682,000
Net assets	\$ 57,749,269	\$ 59,475,256

1. Comprehensive annual financial report for the FY ended Sept. 30, 2020, 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.
2. The FY 2020 beginning of year net position for the pension and OPEB plans were increased by \$77.5 million and \$34.9 million, respectively, to account for additional contributions due to the System from members and employers that were earned on or before Sept. 30, 2019, but reported to the system after FY close.

Revenue and expenditures, change in net assets

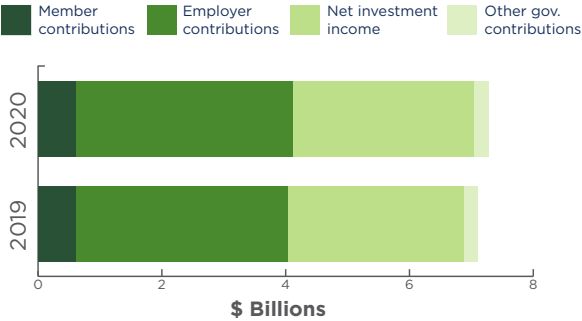
The reserves needed to finance pension and OPEB are accumulated through the collection of employer and employee contributions including earnings on investments.

Contributions and net investment income for FY 2020 totaled \$7.3 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.

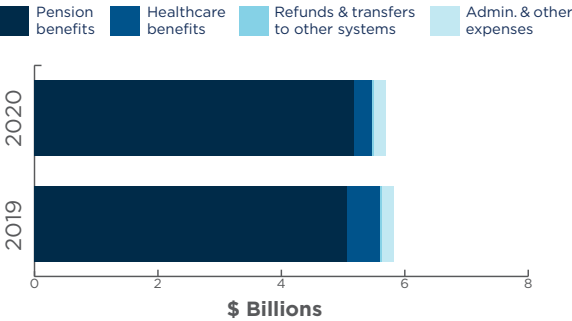
Additions and deductions ¹ (dollars in thousands)		
Additions	FY 2019	FY 2020
Member contributions	\$ 611,344	\$ 606,379
Employer contributions	3,414,427	3,517,348
Other governmental contributions	233,196	254,348
Net investment income (loss)	2,855,383	2,919,801
Miscellaneous income	277	192
Total additions	\$ 7,114,627	\$ 7,298,068
Deductions	FY 2019	FY 2020
Pension benefits	\$ 5,058,624	\$ 5,183,129
Healthcare benefits	542,034	286,465
Refunds and transfers to other systems	29,378	28,029
Administrative and other expenses	190,062	186,832
Total deductions	\$ 5,820,098	\$ 5,684,455
Net position ²	FY 2019	FY 2020
Net increase (decrease) in net position	\$ 1,294,529	\$ 1,613,613
Beginning of year	56,454,740	57,861,643
End of year	\$ 57,749,269	\$ 59,475,256

1. Comprehensive annual financial report for the FY ended Sept. 30, 2020, Page 16.
 2. FY 2020 beginning of year fiduciary net position was restated due to an audit adjustment for contributions received after the measurement date.

Revenue



Expenditures



2020 plan expenditures

Plan expenses for FY ended Sept. 30, 2020^{1,2}

Pension plan administrative and other expenses

Dollars in thousands

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

Personnel services

Staff salaries	\$	6,019
Retirement and Social Security		3,255
Other fringe benefits		1,217
Subtotal	\$	10,491

Professional services

Accounting	\$	1,979
Actuarial		374
Attorney general		258
Audit		464
Consulting		1,632
Medical		236
Subtotal	\$	4,944

Building and equipment

Building rentals	\$	924
Equipment purchase, maintenance, and rentals		38
Subtotal	\$	963

Miscellaneous

Travel and board meetings (excluding travel and education for board members)	\$	14
Office supplies		7
Postage, telephone, and other		1,566
Printing		221
Technological support		11,122
Subtotal		12,931

Travel and education for board members 0

Total administrative and other expenses \$ 29,332

2020 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 System's trust fund.	
Health fees	152,610
Dental fees	4,676
Vision fees	212
Total health, dental, and vision expenses	\$ 157,499
Investment expenses	Dollars in thousands
These expenditures are related to the Treasury, Bureau of Investments (BOI) for managing the System's assets, and are paid from the System's trust fund.	
Real estate operating expenses	\$ 1,362
Securities lending expenses	21,417
Other investment expenses	
ORS-investment expenses	14,085
Custody fees	1,254
Management fees	153,547
Research fees	5,057
Total investment expenses	\$ 196,724
Benefits paid to members	Dollars in thousands
These were the retirement benefits paid to members of the System during the fiscal year.	
Retirement benefits	\$ 5,183,129
Health benefits	226,140
Dental and vision benefits	60,324
Refunds of member contributions	28,029
Total payments to members	\$ 5,497,623
Total of all sections	\$ 5,881,179
<ol style="list-style-type: none"> 1. DTMB, Financial Services report. The sum total of all the line items may not equal the total due to rounding. 2. Treasury, BOI report. 	

2021 budget for plan expenditures

Budget for plan expenses for FY ending Sept. 30, 2021^{1,2}

Pension plan administrative and other expenses

Dollars in thousands

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

Personnel services

Staff salaries	\$	6,296
Retirement and Social Security		3,602
Other fringe benefits		1,334
Subtotal	\$	11,233

Professional services

Accounting	\$	2,196
Actuarial		463
Attorney general		209
Audit		510
Consulting		1,591
Medical		312
Subtotal	\$	5,284

Building and equipment

Building rentals	\$	948
Equipment purchase, maintenance, and rentals		50
Subtotal	\$	998

Miscellaneous

Travel and board meetings (excluding travel and education for board members)	\$	0
Office supplies		27
Postage, telephone, and other		1,306
Printing		314
Technological support		11,437
Subtotal		13,084

Travel and education for board members		3
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Total administrative and other expenses	\$	30,603
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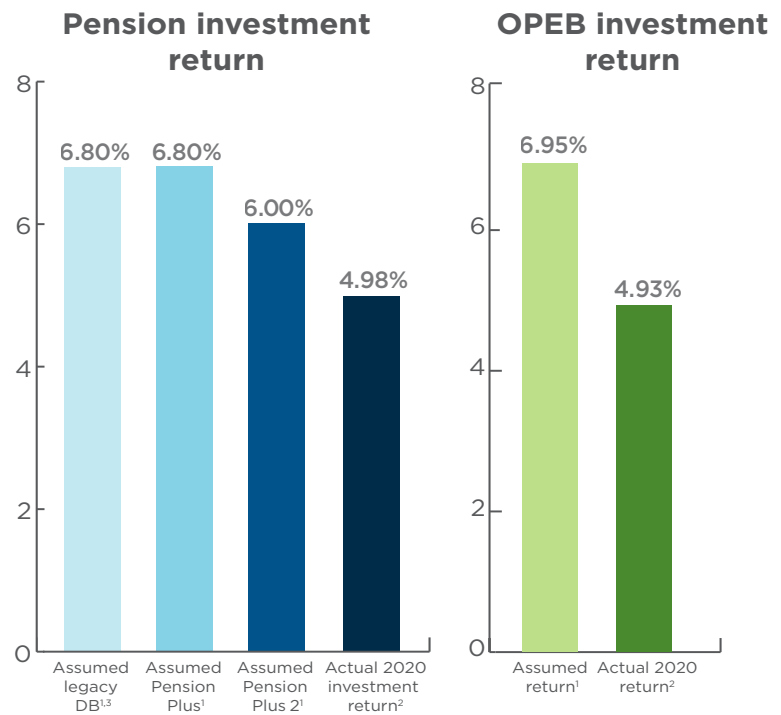
2021 budget, continued

Health, dental, and vision expenses		Dollars in thousands
These expenditures are for self-insurance of the health, dental, and vision plans, and are paid from the System's trust fund.		
Health fees		152,610
Dental fees		4,255
Vision fees		208
Total health, dental, and vision expenses	\$	157,074
Investment expenses		Dollars in thousands
These expenditures are related to the Treasury, BOI for managing the System's assets and are paid from the System's trust fund.		
Real estate operating expenses	\$	1,021
Securities lending expenses		21,846
Other investment expenses		
ORS-investment expenses		14,507
Custody fees		1,204
Management fees		156,618
Research fees		6,827
Total investment expenses	\$	202,025
Benefits paid to members		Dollars in thousands
These are the projected retirement benefits paid to members of the System.		
Retirement benefits	\$	5,286,791
Health benefits		210,311
Dental and vision benefits		50,068
Refunds of member contributions		26,627
Total payments to members	\$	5,573,799
Total of all sections		\$ 5,963,503
<ol style="list-style-type: none"> 1. DTMB, Financial Services report. The sum total of all the line items may not equal the total due to rounding. 2. Treasury, BOI report. 		

Assumed and actual investment returns

The Michigan Department of Treasury, BOI 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.

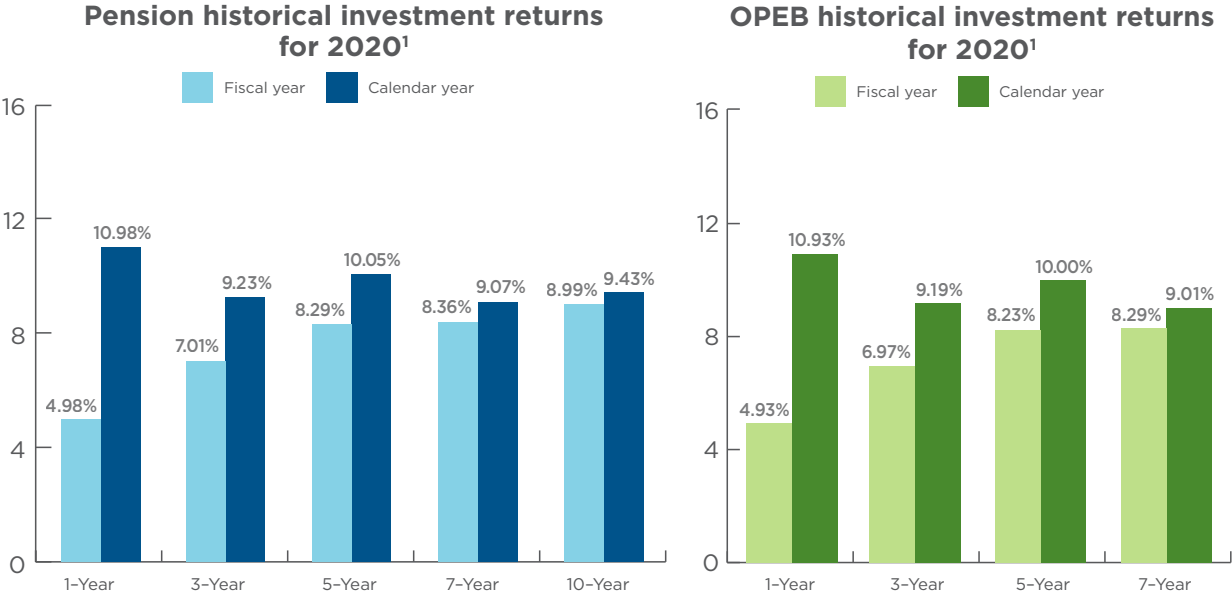
The assumed rate of return (AROR) is a key assumption used by the plan actuary in determining the employer contribution rates each year. When investments do not meet the AROR, this results in an actuarial loss for the System. The AROR for all MPSERS plans are provided in the charts in this section. The actual rate of investment return for the pension plan in FY 2020 was 4.98%. The actual rate of investment return for OPEB was 4.93%.



1. 2020 MPSERS Pension Actuarial Valuation, Section C.
 2. Treasury, BOI 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. Treasury, BOI report. These figures are shown net of fees. Information shown in the financial report 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 ¹		
	Market value	Total investment and interest income
Fixed income pools	\$ 7,295,412,898	\$ 323,962,654
Domestic equity pools	12,733,284,058	1,269,680,223
Real estate and Infrastructure pools	4,772,106,584	-321,554,348
Private equity pools	11,739,761,553	707,280,058
International equity pools	9,509,300,910	555,133,624
Absolute return pools	2,863,179,009	53,625,492
Real return and opportunistic pools	7,301,366,973	473,858,653
Short-term investment pools	2,750,475,335	25,252,613
Market value and net investment gain	\$ 58,964,887,319	\$ 3,087,238,969



- Fixed income pools - 12.4%
- Domestic equity pools - 21.6%**
- Real estate and infrastructure pools - 8.1%**
- Private equity pools - 19.9%**
- International equity pools - 16.1%**
- Absolute return pools - 4.8%**
- Real return and opportunistic pools - 12.4%**
- Short-term investment pools - 4.7%**

1. Comprehensive annual financial report for the FY ended Sept. 30, 2020, Page 78.

Market and actuarial funding ratios

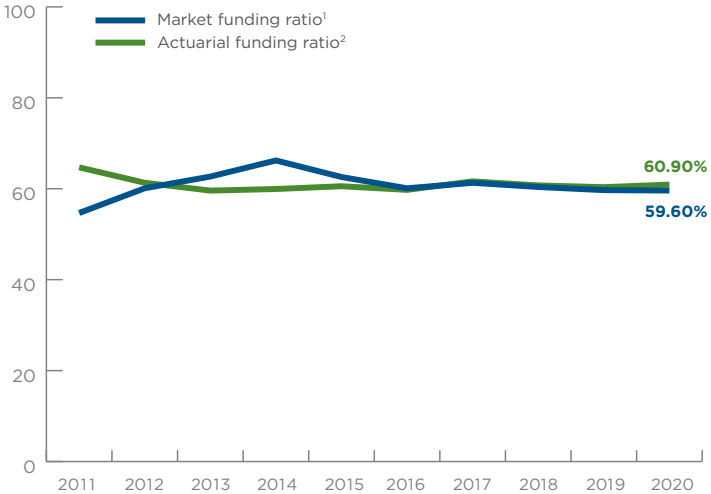
Pension

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.

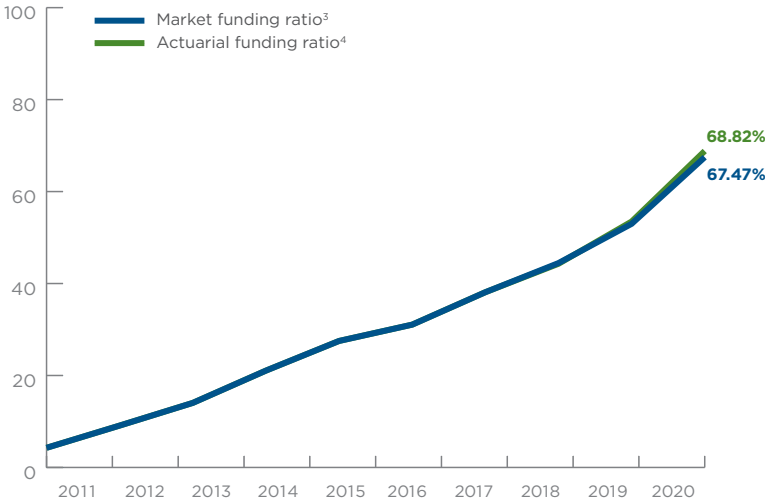
OPEB

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 and requires separate actuarial and market funding ratios to be calculated moving forward. The market value of assets as of Sept. 30, 2020, was \$8.0 billion, while the actuarial value of assets was \$8.2 billion.



1. Calculated on market value of assets.
 2. Pension Actuarial Valuation for the FY ended Sept. 30, 2020, pages B-5 and C-10.



3. Calculated on market value of assets.
 4. OPEB Actuarial Valuation for the FY ended Sept. 30, 2020, pages A-2 and D-2.

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 above.

Member and employer pension contributions for FY 2023

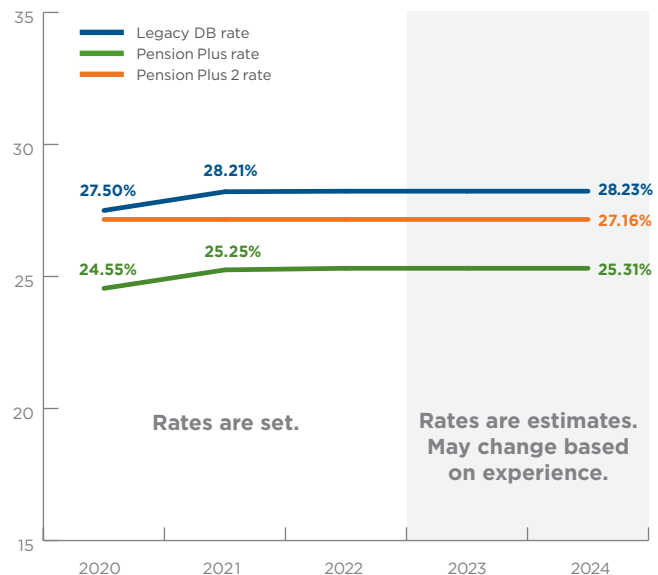
Member contributions	Pension ¹	OPEB ²
Weighted average		
Legacy DB	4.82%	3.00%
Pension Plus	5.26%	3.00%
Pension Plus 2	6.20%	-
Employer contributions	Pension ¹	OPEB ²
Normal cost of benefits expressed as a percentage of valuation payroll ⁴		
Legacy DB	6.41%	0.73%, 0.86%
Pension Plus ³	3.49%	0.73%, 0.86%
Pension Plus 2 ³	6.20%	-
UAAL contribution rate expressed as a percentage of valuation payroll ⁴		
Legacy DB	30.14%	2.55%, 7.20%
Pension Plus	30.14%	2.55%, 7.20%
Pension Plus 2	30.14%	-
Valuation payroll (dollars in thousands)		
For normal cost	\$7,964	\$6,134
For UAAL	\$9,442	\$9,442

1. Pension Actuarial Valuation for the FY ended Sept. 30, 2020, Page A-1.
2. OPEB Actuarial Valuation for the FY ended Sept. 30, 2020, Page A-5, Comment D.
3. This is the DB component of Pension Plus and Pension Plus 2. There is an additional 1.00% employer match for the DC component.
4. PA 300 of 1980 as amended includes statutory contribution floors for pension and OPEB. Contribution rates are presented with and without floors, as applicable.

Contribution rates

Contribution rates are determined actuarially, based on the economic conditions and an assumed investment return each year. Contribution rates for FY 2021 and FY 2022 have been calculated, provided to the employers, and published on the employer website.

Rates for FY 2023 and FY 2024 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 FY ended Sept. 30, 2020

Pension and OPEB ^{1,2}		
Actuarial cost method		Entry age, normal
Amortization method		Level percent of payroll
Payroll growth assumption ³	2.50% reduced to 0.00% 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 rates ²		
Medical and prescription drug premiums		
Pre-65	7.75% year 1 graded to 3.50% year 15, 3.00% year 120	
Post-65	5.25% year 1 graded to 3.50% year 15, 3.00% year 120	
Medicare offset payments	5.25% year 1 graded to 3.50% year 15, 3.00% year 120	
Dental and vision premiums	3.50% each year, 3.00% year 120	
AROR—closed ^{2,4}		6.95%
Pension—AROR ¹		
Legacy DB plan—closed		6.80%
Pension Plus—closed		6.80%
Pension Plus 2—open		6.00%

1. MPSERS Pension Actuarial Valuation for the FY ended Sept. 30, 2020.
2. MPSERS OPEB Actuarial Valuation for the FY ended Sept. 30, 2020.
3. PA 181 of 2018 enacted a gradual phase-in reduction to the payroll growth assumption to 0.00% 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.
4. 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

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.

Accel Partners	Bridgepoint Capital	Flagship Ventures
Acorn Bioventures	BroadRiver Asset Management LP	Fortress Investment Group LLC
Advent International Corp.	Brookfield Asset Management Inc.	Fox Paine & Company LLC
AEW Capital Management LP	BTIG Brokers	Freeman Spogli & Co.
Affinity Equity Partners	Cantor Fitzgerald	FTN Financial
American Industrial Partners	Capital Institutional Services Inc.	Gaw Capital
Ancora Advisors LLC	Capri Capital Partners LLC	Genstart Capital LLC
Angelo Gordon	The Carlyle Group LP	Glen Eagle Wealth
Aon Hewitt	Carlyle Investment Management LLC	Glencoe Capital
Apax Partners Worldwide LLP	Centerbridge Capital	Goldman Sachs Group Inc.
Apollo Global Management Inc.	Cerberus Capital Management LP	Great Mountain Partners
Arboretum Ventures	Charlesbank Capital Partners	Greenspring Associates
ArcLight Capital Partners LLC	CIE Management-BC Partners	Grosvenor Capital Management
Ardian	CIM Investment Advisors	HarbourVest Partners LLC
Ares Management LLC	CircleUp Network Inc.	Harvest Partners LLC
Ark Investment Management LLC	Citigroup	Heitman Capital Management LLC
Asana Partners	Citigroup Global Markets Inc.	Highbridge Principal Strategies
Attucks Asset Management LLC	Clarion Partners	Hilltop Securities Inc.
Avanath Capital Management LLC	Clarkston Capital Partners LLC	Hopen Life Sciences Ventures
Axiom Asia Private Capital	Coller Capital	HPS Investment Partners III LLC
Bank of America Merrill Lynch	Columbia Management Investment Advisors	Huron Capital Partners LLC
Bank of Montreal	CoStar Realty Information Inc.	ICG Advisors LLC
Barclays Capital	Cowen & Co. LLC	InSight Venture Partners
Barings Alternative Investments	Credit Suisse	Invesco Ltd.
Basalt Infrastructure Partners LLP	Credit Suisse Securities	Investors Diversified Realty
BB&T Capital Markets	Crescent Capital Group	Jefferies
BentallGreenOak	CVC Capital Partners	J.P. Morgan
Beringea	Czech Asset Management LP	J.P. Morgan Asset Management
Berkshire Partners LLC	D.A. Davidson Companies	J.P. Morgan Securities LLC
BGC Partners	DAIWA	Kayne Anderson
Bivium Capital Partners LLC	Dalmore Capital Limited	Kayne Anderson Capital Advisors LP
BlackRock	Deutsche Bank	KBS Realty Advisors
BlackRock Financial Management	Deutsche Bank Securities Inc.	Kelso & Company
BlackRock Institutional Trust Company	Domain Capital Advisors LLC	Kensington Realty Advisors
Blackstone Alternative Asset Management LP	Drexel Hamilton	Khosla Ventures
Blackstone Credit	Effissimo Capital Management	Kohlberg, Kravis, Roberts & Co.
The Blackstone Group Inc.	eFront (Via Domain)	L&B Realty Advisors LLP
Bluescape/Carlson	EnCap Investments LP	Landmark Realty Advisors
BNP Paribas	Fidelity Institutional Asset Management	LaSalle Investment Management
BNP Paribas Finance	FIMI Opportunity Funds	Lazard Asset Management
BNY Convergenx G.	FirstMark Capital	Lead Edge Capital
		Leonard Green & Partners LP
		LGT Capital Partners

Investment service providers, continued

Lightspeed Venture Partners	Proprium Capital Partners LP	TSG Consumer Partners
Lombard International Life Assurance Company	Prudential Investment Management	Turnbridge Capital Management LLC
Lonestar	Public Pension Capital	Turning Rock Partners
Loomis Sayles & Company	Putnam Advisory Company	U.S. Bancorp Investments Inc.
Los Angeles Capital Management	Raymond James & Associates Inc	Veritas Capital Fund Management LLC
Lubert-Adler Management Company	RBC Capital Markets LLC	Vida Capital Inc.
Marathon Asset Management	Renaissance Venture Capital	Vista Equity Partners
MarketAxess Corporation	Rhone Capital	Warburg Pincus LLC
Martin Currie	Rialto Capital	Warwick Energy Group
Mellon Capital Management	Ridgewood Capital Management LLC	Wayne Co.
Menlo Management Partners	Ridgewood Energy	Wellington Trust Company
Merill Lynch (Bank of America)	Riverside	Wells Fargo Securities LLC
Merill Lynch Pierce Fenner & Smith LLC	Robert W. Baird & Co. Inc.	WestLB Asset Management LLC
Merit Energy Company	Roberts & Ryan	
Meritech Capital Partners	The Rohatyn Group	
Mesirow Financial	R.W. Pressprich & Co.	
Metropolitan West Asset Management	Science Media LLC	
MFR Securities	Scotia Capital Inc.	
MI Growth Capital Partners SBIC	Seizert Capital Partners	
Mischler Financial Group	Shamrock Capital Advisors LLC	
MKM Holdings LLC	Silver Lake	
MKM Partners	Sixth Street Partners	
Morgan Stanley	SK Capital Partners LP	
MUFG	Societe Generale	
Multi-Bank Securities Inc.	Sprott Resource	
Napier Park Global Advisors	State Street Bank	
Napier Park Global Capital	State Street Global Advisors	
Natural Gas Partners	Stifel Nicolaus & Co. Inc.	
New Leaf Venture Partners	Stockbridge Capital Group	
Nordic Capital	Stonepeak Advisors LLC	
NorthPointe Capital	Summit Partners	
Oak Investment Partners	SunTrust Robinson Humphrey	
Oaktree Capital Management LLC	Susquehanna International Group LLP	
Odyssey Investment Partners	Sycamore Partners	
Orion Resource Partners	T. Rowe Price	
Pacific Investment Management LLC	The John Buck Company	
Paladin Realty Partners LLC	The Riverside Company	
Parthenon Capital Inc.	The TCW Group Inc.	
Peninsula Capital Partners LLC	Thomas Bravo	
Permira	TICP SMA Management	
PGIM Inc.	TPG Real Estate Advisors	
PIMCO Mortgage Fund	TPG Inc.	
Piper Jaffray	Transwestern Investment Group	
PPC Partners Inc.	Trilantic Capital Management LLC	
Principal Financial Group	Trophy Property	
Principal Real Estate Advisors	True North Management Group	
	Trusted Insight Inc.	



Office of Retirement Services

Department of Technology, Management and Budget
Anthony Estell, director

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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