

# **Summary Annual Report**

for the State Police 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



The Department of Technology, Management and Budget (DTMB), Office of Retirement Services (ORS) is pleased to present the Summary Annual Report for the State Police Retirement System (SPRS), henceforth referred to as the System, for the

fiscal year (FY) ended Sept. 30, 2020.





ORS is able to cost-effectively provide these

ORS provides retirement and related retiree

healthcare plans to help attract, retain, and

reward a highly gualified workforce.

benefits to retirees. In 2020, the total defined benefit (DB) pension administration cost was \$68 per active member and retiree. This was \$34 below the peer average of \$102 per active member and retiree (CEM Benchmarking).

Director Anthony Estell

### Accomplishments

#### **CARES Act implementation**

ORS implemented relief provisions related to the COVID-19 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 employees from working in the office to telecommuting.

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

### Accomplishments, continued

#### **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,

#### Honors

#### **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. Print and Mail Management was 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.

#### **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 State Police Retirement System

This report is issued in compliance with the Public Employee Retirement System Investment Act, 1965 Public Act (PA) 314, as amended. The contents come from the complete SPRS 2020 comprehensive annual financial report, available on our website at Michigan.gov/ORSMSP, the annual actuarial valuations as of Sept. 30, 2020, and additional analysis performed after Sept. 30, 2020.

State police 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 \$1.8 billion for pension and other post-employment benefits (OPEB), and the total actuarial accrued liability (AAL) was \$3.1 billion resulting in a total unfunded actuarial accrued liability (UAAL) of \$1.3 billion.

The System's assets increased by \$71.2 million in FY 2020. Asset increases were primarily due to investment income and contributions from employees. The overall AAL for pension and OPEB increased by \$23.6 million primarily due to differences between expected and actuarial results.

The pension funding ratio declined slightly by 0.4 percentage points primarily as a result of experience losses with the pension plan.

The OPEB funding ratio improved by 7.6 percentage points due to demographic gains and continued positive experience in the retiree health plan.

| Statement of assets and liabilities                 |                      |                   |  |  |  |
|---|----------------------|-------------------|--|--|--|
| FY 2020   | Pension <sup>1</sup> | OPEB <sup>2</sup> |  |  |  |
| AAL   | \$2,374,413,132      | \$729,463,420     |  |  |  |
| Present value of assets                             | \$1,545,271,705      | \$280,968,719     |  |  |  |
| UAAL  | \$829,141,427        | \$448,494,701     |  |  |  |
| Funding ratio                                       | 65.1%                | 38.5%             |  |  |  |
| FY 2019   | Pension <sup>3</sup> | OPEB <sup>4</sup> |  |  |  |
| AAL   | \$2,320,701,604      | \$759,597,388     |  |  |  |
| Present value of assets                             | \$1,519,978,363      | \$235,042,435     |  |  |  |
| UAAL  | \$800,723,241        | \$524,554,953     |  |  |  |
| Funding ratio                                       | 65.5%                | 30.9%             |  |  |  |
| 1. 2020 SPRS Pension Actuarial Valuation. Page B-1. |                      |                   |  |  |  |

1 2020 SP

2. 2020 SPRS OPEB Actuarial Valuation, Page A-2.

3. 2019 SPRS Pension Actuarial Valuation, Page B-1.

4. 2019 SPRS OPEB Actuarial Valuation, Page A-2.

### **Membership**

Members of the DB plan are enlisted Michigan State Police officers. Membership in the plan is automatic when officers complete recruit school and subscribe to the constitutional oath of office.

Members also include troopers participating in the Deferred Retirement Option Plan (DROP) and receiving employee wages.

Employees who work for the Michigan State Police, but are not enlisted officers, are not members of this plan.

| Plan membership and retirement allowances |
|---|
| as of Sent 30 2020                        |

| as of Sept. 30, 2020  |               |
|---|---------------|
| Membership <sup>1</sup>   |               |
| Retirees and beneficiaries currently receiving benefits                     |               |
| Regular benefits  | 2,527         |
| Survivor benefits   | 524           |
| Disability benefits   | 206           |
| Total   | 3,257         |
| Current employees   |               |
| Vested  | 650           |
| Non-vested  | 1,098         |
| Total   | 1,748         |
| Inactive employees  |               |
| Entitled to benefits and not yet receiving them                             | 31            |
| DROP participants   | 249           |
| Total all members   | 5,285         |
| 1. Comprehensive annual financial report for the FY ended Sept. 30, 2020, F | Page 20.      |
| Retirement allowances <sup>2</sup>  |               |
| Average annual retirement allowance   | \$41,932      |
| Total annual retirement allowances being paid                               | \$136,572,303 |
| 2. Pension Actuarial Valuation for the FY ended Sept. 30, 2020, Page D-2.   |               |
|   |               |

### **Assets and liabilities**

The System's total assets on a market basis as of Sept. 30, 2020, were \$1.9 billion, mostly composed of cash and investments.

Total liabilities as of Sept. 30, 2020, were \$75.3 million and include accounts payable, obligations under securities lending, and other accrued long-term liabilities.

Total net assets held in trust for pension and OPEB increased by \$51.3 million from the previous year.

| Assets and liabilities <sup>1</sup> (dolla<br>(combined pension and OPE | thousan           | ds) |           |
|---|-------------------|-----|-----------|
| Assets  | FY 2019           |     | FY 2020   |
| Cash  | \$<br>12,302      | \$  | 18,048    |
| Receivables   | 10,406            |     | 12,510    |
| Investments   | 1,716,238         |     | 1,759,343 |
| Securities lending collateral   | 68,038            |     | 73,198    |
| Total assets  | \$<br>1,806,985   | \$  | 1,863,099 |
| Liabilities   | FY 2019           |     | FY 2020   |
| Accounts payable and other liabilities                                  | 2,428             |     | 2,083     |
| Obligations under securities lending                                    | 68,030            |     | 73,198    |
| Other accrued liabilities long term                                     | -                 |     | 29        |
| Total liabilities   | 70,458            |     | 75,310    |
| Net assets  | \$<br>1,736,527   | \$  | 1,787,789 |
| 1. Compared another annual financial war aut fau that                   | <br>1 C t 70 0000 | D   | I.F.      |

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

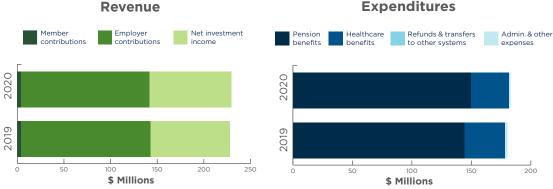
the line items may not equal the total due to rounding.

### **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 \$234.3 million. 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 <sup>1</sup> (dollars in thousands) |         |                   |         |           |  |
|--|---------|-------------------|---------|-----------|--|
| Additions  |         | FY 2019           |         | FY 2020   |  |
| Member contributions   | \$      | 3,693             | \$      | 4,100     |  |
| Employer contributions                                       |         | 138,905           |         | 137,467   |  |
| Other governmental contributions                             |         | 5,218             |         | 4,577     |  |
| Net investment income (loss)                                 |         | 85,507            |         | 87,725    |  |
| Miscellaneous income   |         | 39                |         | 446       |  |
| Total additions  | \$      | 233,361           | \$      | 234,314   |  |
| Deductions   |         | FY 2019           |         | FY 2020   |  |
| Pension benefits   | \$      | 144,171           | \$      | 149,407   |  |
| Healthcare benefits  |         | 33,803            |         | 32,046    |  |
| Refunds and transfers to other systems                       |         | 23                |         | 11        |  |
| Administrative and other expenses                            |         | 2,247             |         | 1,588     |  |
| Total deductions   | \$      | 180,243           | \$      | 183,052   |  |
| Net position   |         | FY 2019           |         | FY 2020   |  |
| Net increase (decrease) in net position                      | \$      | 53,118            | \$      | 51,263    |  |
| Beginning of year  |         | 1,683,409         |         | 1,736,527 |  |
| End of year  | \$      | 1,736,527         | \$      | 1,787,789 |  |
| 1. Comprehensive annual financial report for the FY e        | nded Se | ept. 30, 2020, Pa | age 16. |           |  |



#### **Expenditures**

# 2020 plan expenditures

| Persion plan administrative and other expenses       Pollars         Interse weenditures are the administrative costs of running the System and are paid by DTMB, ORS and DTMB, Financial Services through and anterpaid by DTMB, ORS and DTMB, Financial Services through and anterpaid by DTMB, ORS and DTMB, Financial Services through and anterpaid by DTMB, ORS and DTMB, ORS and DTMB, Financial Services through and anterpaid by DTMB, ORS and  | Plan expenses for FY ended Sept. 30, 2020 <sup>1,2</sup>                     |                  |         |
|--|--|------------------|---------|
| anul appepration.<br>Personnel services<br>Staff salaries \$ 184,346<br>Retirement and Social Security 99,714<br>Other fringe benefits 3023,237<br>Subtotal \$ 223,377<br>Subtotal \$ 223,377<br>Accounting \$ 24,127<br>Accounting \$ 24,127<br>Accounting \$ 24,127<br>Accounting \$ 24,127<br>Actuarial \$ 24,037<br>Actuarial \$ 24,037<br>Actuar | Pension plan administrative and other expenses                               |                  | Dollars |
| staf salaries       \$       184,344         Retirement and Social Security       99,714         Other fringe benefits       37,287 <b>subtal Subtal Sultatal subtal Sultatal Sultatal refessional services Sultatal Sultatal</b> Accounting       \$       24,127         Actuarial       99,049       97,049         Attorney general       64,593       44,000         Audit       73,200       2,281         Medical       4,931       2,281         Medical       4,931       2,281         Medical       4,931       2,281         Subtotal       \$       266,231         Building rentals       \$       16,655         Equipment purchase, maintenance, and rentals       471         Subtotal       \$       12,366         Fravel and board meetings (excluding travel and education for board members)       \$       16,65         Postage, telephone, and other       20,120       86       86         Printing       3,678       3,678       3,678         Fechnological support       125,255       3       3,678         Motal  |  | vices through an |         |
| Retirement and Social Security9,7,4Other fringe benefits37,287Subtotal\$32,127Subtotal\$24,127Accounting\$24,127Acturial97,099Attorney general64,593Audit73,200Consulting2,281Medical4,931Subtotal\$Building rentals4,931Equipment purchase, maintenance, and rentals4,931Subtotal\$Postage, telephone, and other\$Priseige supplies8Postage, telephone, and other20,120Printing3,678Subtotal20,201Pinting3,678Subtotal20,202Pinting3,678Pinting3,678Subtotal20,202Pinting3,678Subtotal20,202Pinting3,678Subtotal20,202Pinting3,678Pinting3,678Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255  | Personnel services   |                  |         |
| Other fringe benefits37,287Subtotal\$321,347Forfessional services37,287Accounting\$321,347Accounting\$24,127Actuarial97,099Attorney general64,593Audit73,200Consulting2,281Medical4,391Subtotal\$266,231Building end equipment\$10,665Equipment purchase, maintenance, and rentals31Subtotal\$12,366Mecical\$12,366Potage, telephone, and other\$20,202Printing\$3,678Consulting\$3,678Consulting\$3,678Consulting\$3,678Subtotal\$3,678Consulting\$   | Staff salaries   | \$               | 184,346 |
| subtotal\$ 021,949Professional servicesAccounting\$ 24,127Acturaia97,009Attorney general64,593Audit73,200Consulting2,281Medical4,301Subtotal8 026,231Building rentals4Equipment purchase, maintenance, and rentals411,665Subtotal\$ 012,136Favel and board meetings (excluding travel and education for board members)\$ 117Office supplies8Potage, telephone, and other20,202Printing3,678Tavel and board meetings (excluding travel and education for board members)\$ 20,202Printing3,678Consolicial support125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal for board members\$ 24,272Subtotal25,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255Subtotal125,255 <t< td=""><td>Retirement and Social Security</td><td></td><td>99,714</td></t<>   | Retirement and Social Security   |                  | 99,714  |
| Professional services   Accounting \$ 24,127   Actuarial 97,099   Attorney general 64,593   Audit 73,200   Consulting 2,281   Medical 4,931   Subtotal \$   Building and equipment 4,931   Building rentals \$   Equipment purchase, maintenance, and rentals 471   Subtotal \$   Necellaneous 471   Travel and board meetings (excluding travel and education for board members) \$   Printing 3,678   Texlel and outpert 20,120   Printing 3,678   Texlel and education for board members) \$   Subtotal 125,255   Subtotal 125,255  | Other fringe benefits  |                  | 37,287  |
| Accounting\$24,127Actuarial97,099Attorney general64,593Audit73,200Consulting2,281Medical4,931 <b>subtotal</b> \$Building rentals\$Equipment purchase, maintenance, and rentals411subtotal\$Subtotal\$Privel and board meetings (excluding travel and education for board members)\$Prixel and board meetings (excluding travel and education for board members)\$Prixting and etupport20,120Forbalogical support20,201Printing3,678Fothological support125,255Subtotal149,256  | Subtotal   | \$               | 321,347 |
| Actuarial97,099Attorney general64,593Audit73,200Consulting2,281Medical4,931 <b>subotal3</b> Building rentals <b>3</b> Equipment purchase, maintenance, and rentals411 <b>subotal3subotal3</b> Parelaneous <b>1</b> Fravel and board meetings (excluding travel and equipment) <b>3</b> Office supplies86Postage, telephone, and other20,120Printing3,678Technological support125,255 <b>subotal</b> 149,256Subotal149,256  | Professional services  |                  |         |
| Attorney general       64,593         Audit       73,200         Consulting       2,281         Medical       4,931 <b>Subtotal</b> 2         Building and equipment       1         Building rentals       1         Equipment purchase, maintenance, and rentals       471         Subtotal       1         Subtotal       1         Subtotal       1         Fravel and board meetings (excluding travel and education for board members)       1         Office supplies       86         Postage, telephone, and other       20,100         Printing       3,678         Tachnological support       125,255         Subtotal       149,256   | Accounting   | \$               | 24,127  |
| Audit       73,200         Consulting       2,281         Medical       4,931         Subtotal       2 66,231         Building rentals       10         Building rentals       11,665         Equipment purchase, maintenance, and rentals       471         Subtotal       11,665         Equipment purchase, maintenance, and rentals       471         Subtotal       12,136         Hocellaneous       117         Office supplies       86         Postage, telephone, and other       20,120         Printing       3,678         Technological support       125,255         Subtotal       149,256   | Actuarial  |                  | 97,099  |
| Consulting2,281Medical4,931Subtotal\$266,231Building rentals\$1,665Equipment purchase, maintenance, and rentals471Subtotal\$12,136Miscellaneous\$117Office supplies86Postage, telephone, and other20,120Printing3,678Technological support125,255Subtotal149,256   | Attorney general   |                  | 64,593  |
| Medical4,931Subtotal2 66,231Subtotal2 66,231Building rentals\$ 11,665Equipment purchase, maintenance, and rentals471Subtotal1 21,366Subtotal\$ 12,136Miscellaneous\$ 117Travel and board meetings (excluding travel and education for board members)\$ 117Office supplies68Postage, telephone, and other20,120Pinting3,678Total support125,255Subtotal149,256  | Audit  |                  | 73,200  |
| Subtotal\$266,231Building and equipment511,665Equipment purchase, maintenance, and rentals471Subtotal\$12,136Miscellaneous5117Office supplies86Postage, telephone, and other20,120Printing3,678Tachnological support125,255Subtotal149,256Travel and education for board members6  | Consulting   |                  | 2,281   |
| Building and equipment Building rentals Guipment purchase, maintenance, and rentals Guipment purchase, maintenance, and rentals Guipment purchase, maintenance, and rentals Guibtotal Subtotal Subtotal Travel and board meetings (excluding travel and education for board members) Guifice supplies Postage, telephone, and other Postage, telephone, and other Cuitting Subtotal Cuitting Subtotal Cuitting Subtotal Cuitting Subtotal Cuitting Subtotal  | Medical  |                  | 4,931   |
| Building rentals\$11,665Equipment purchase, maintenance, and rentals471Subtotal\$12,136Subtotal\$12,136Miscellaneous\$117Office supplies\$117Postage, telephone, and other\$20,120Printing\$3,678Technological support\$125,255Subtotal\$149,256   | Subtotal   | \$               | 266,231 |
| Equipment purchase, maintenance, and rentals 471   Subtotal \$   Subtotal \$   Miscellaneous 117   Office supplies 86   Postage, telephone, and other 20,120   Printing 3,678   Technological support 125,255   Subtotal 149,256   | Building and equipment   |                  |         |
| Subtotal\$12,136Hiscellaneous117Travel and board meetings (excluding travel and education for board members)\$117Office supplies86Postage, telephone, and other20,120Printing3,678Technological support125,255Subtotal149,256  | Building rentals   | \$               | 11,665  |
| Hiscellaneous   Travel and board meetings (excluding travel and education for board members)   Office supplies   Postage, telephone, and other   Printing   Technological support   Subtotal   Travel and education for board members  | Equipment purchase, maintenance, and rentals                                 |                  | 471     |
| Travel and board meetings (excluding travel and education for board members)\$117Office supplies86Postage, telephone, and other20,120Printing3,678Technological support125,255Subtotal149,256  | Subtotal   | \$               | 12,136  |
| Office supplies86Postage, telephone, and other20,120Printing3,678Technological support125,255Subtotal149,256Travel and education for board members-  | Miscellaneous  |                  |         |
| Postage, telephone, and other20,120Printing3,678Technological support125,255Subtotal149,256Travel and education for board members-   | Travel and board meetings (excluding travel and education for board members) | \$               | 117     |
| Printing3,678Technological support125,255Subtotal149,256Travel and education for board members-  | Office supplies  |                  | 86      |
| Technological support     125,255       Subtotal     149,256       Travel and education for board members     -  | Postage, telephone, and other  |                  | 20,120  |
| Subtotal149,256Travel and education for board members-   | Printing   |                  | 3,678   |
| Travel and education for board members -   | Technological support  |                  | 125,255 |
|  | Subtotal   |                  | 149,256 |
| Total administrative and other expenses\$748,970   | Travel and education for board members                                       |                  | -       |
|  | Total administrative and other expenses                                      | \$               | 748,970 |

## 2020 plan expenditures, continued

| Health, dental, and vision expenses   |
|---|
| These expenditures are for self-insurance of the health and dental plans a  |
| Health fees   |
| Dental fees   |
| Vision fees   |
| Total health, dental, and vision expenses                                   |
| Investment expenses   |
| These expenditures are related to the Treasury, Bureau of Investments (B    |
| Real estate operating expenses  |
| Securities lending expenses   |
| Other investment expenses   |
| ORS-investment expenses   |
| Custody fees  |
| Management fees   |
| Research fees   |
| Total investment expenses   |
| Benefits paid to members  |
| These were the retirement benefits paid to members of the System durin      |
| Retirement benefits   |
| Health benefits   |
| Dental and vision benefits  |
| Refunds of member contributions   |
| Total payments to members   |
| Total of all sections   |
| 1. DTMB, Financial Services report. The sum total of all the line items may |

|  |                  | Dollars            |
|--|------------------|--------------------|
| and are paid from the System's trust fund.       |                  |                    |
|  | \$               | 745,789            |
|  |                  | 3,829              |
|  |                  | 89,378             |
|  | \$               | 838,996            |
|  |                  | Dollars            |
| BOI) for managing the System's assets and are pa | aid from the Sys | stem's trust fund. |
|  | \$               | 40,930             |
|  |                  | 640,436            |
|  |                  |                    |
|  |                  | 420,694            |
|  |                  | 37,421             |
|  |                  | 4,618,101          |
|  |                  | 150,862            |
|  | \$               | 5,908,444          |
|  |                  | Dollars            |
| ng the FY.                                       |                  |                    |
|  | \$               | 149,407,174        |
|  |                  | 28,855,744         |
|  |                  | 2,190,190          |
|  |                  | 10,619             |
|  | \$               | 180,463,727        |
|  | \$               | 187,960,137        |
| ay not equal the total due to rounding.          |                  |                    |

# 2021 budget for plan expenditures

| Pension plan administrative and other expenses  |                 | Dollars         |
|---|-----------------|-----------------|
| These expenditures are the administrative costs of running the System and are paid by DTMB, ORS and DTMB, Financial Se<br>annual appropriation. | ervices through | 1 an            |
| Personnel services  |                 |                 |
| Staff salaries  | \$              | 192,843         |
| Retirement and Social Security  |                 | 110,325         |
| Other fringe benefits   |                 | 40,885          |
| Subtotal  | \$              | 344,054         |
| Professional services   |                 |                 |
| Accounting  | \$              | 29,917          |
| Actuarial   |                 | 81,345          |
| Attorney general  |                 | 73,636          |
| Audit   |                 | 74,665          |
| Consulting  |                 | 1,500           |
| Medical   |                 | 11,680          |
| Subtotal  | \$              | 272,744         |
| Building and equipment  |                 |                 |
| Building rentals  | \$              | 12,616          |
| Equipment purchase, maintenance, and rentals  |                 | 623             |
| Subtotal  | \$              | 13,239          |
| Miscellaneous   |                 |                 |
| Travel and board meetings (excluding travel and education for board members)  | \$              | -               |
| Office supplies   |                 | 244             |
| Postage, telephone, and other   |                 | 18,590          |
| Printing  |                 | 2,880           |
| Technological support   |                 | 141,627         |
| Subtotal  |                 | <b>163,34</b> 1 |
| Travel and education for board members  |                 | -               |
| Total administrative and other expenses   | \$              | 793,377         |

## 2021 budget, continued

| Health, dental, and vision expenses   |
|---|
| These expenditures are for self-insurance of the health and dental plans a  |
| Health fees   |
| Dental fees   |
| Vision fees   |
| Total health, dental, and vision expenses                                   |
| Investment expenses   |
| These expenditures are related to the Treasury, BOI for managing the Sys    |
| Real estate operating expenses  |
| Securities lending expenses   |
| Other investment expenses   |
| ORS-investment expenses   |
| Custody fees  |
| Management fees   |
| Research fees   |
| Total investment expenses   |
| Benefits paid to members  |
| These are the projected retirement benefits paid to members of the Syste    |
| Retirement benefits   |
| Health benefits   |
| Dental and vision benefits  |
| Refunds of member contributions   |
| Total payments to members   |
| Total of all sections   |
| 1. DTMB, Financial Services report. The sum total of all the line items may |

DTMB, Financial Services report. The sum total of all the line items m
 Treasury, BOI report.

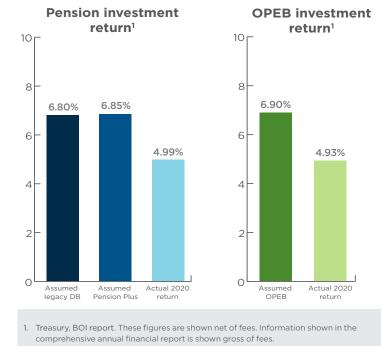
|  |     | Dollars     |
|--|-----|-------------|
| and are paid from the System's trust fund.             |     |             |
|  | \$  | 760,705     |
|  |     | 4,020       |
|  |     | 87,590      |
|  | \$  | 852,316     |
|  |     | Dollars     |
| stem's assets and are paid from the System's trust fur | nd. |             |
|  | \$  | 31,107      |
|  |     | 659,649     |
|  |     |             |
|  |     | 437,522     |
|  |     | 35,924      |
|  |     | 4,756,644   |
|  |     | 205,172     |
|  | \$  | 6,126,018   |
|  |     | Dollars     |
| tem.   |     |             |
|  | \$  | 155,383,461 |
|  |     | 26,547,284  |
|  |     | 1,861,662   |
|  |     | 9,982       |
|  | \$  | 183,802,389 |
|  | \$  | 191,574,100 |
| ay not equal the total due to rounding.                |     |             |

### Assumed and actual investment returns

The Michigan Department of Treasury, BOI administers all 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 the pension and Pension Plus plans was 6.80% and 6.85% respectively. The actual rate of investment return for the plans in FY 2020 was 4.99%.

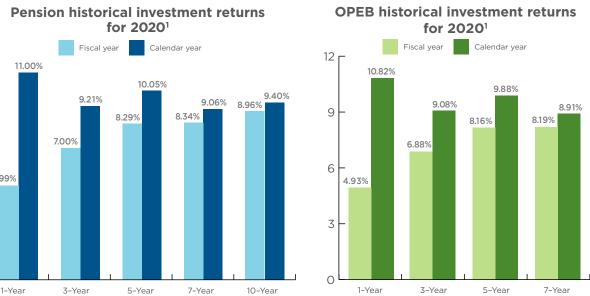
The AROR for OPEB was 6,90%. The actual rate of investment

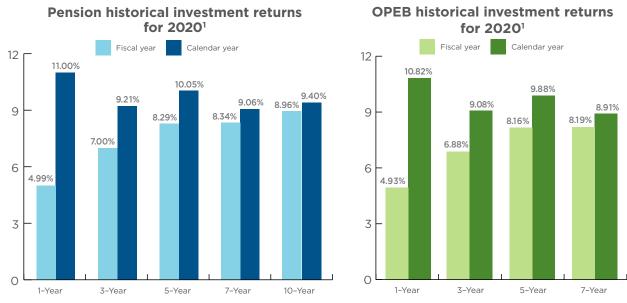


return for OPEB was 4.99%. All changes to the AROR are reflected in the Sept. 30, 2020, actuarial valuations, but for comparison with current year investment results, the prior-year assumptions are presented in the chart.

### **Historical investment returns**

Historical investment returns for both pension and OPEB are presented in the following charts. Because SPRS 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 comprehensive annual 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 <sup>1</sup> |    |               |    |                                 |  |
|---------------------------------------|----|---------------|----|---------------------------------|--|
|                                       |    | Market value  |    | nvestment and<br>nterest income |  |
| Fixed income pools                    | \$ | 218,218,922   | \$ | 9,698,497                       |  |
| Domestic equity pools                 |    | 381,289,934   |    | 38,207,242                      |  |
| Real estate and infrastructure pools  |    | 142,493,611   |    | (9,658,221)                     |  |
| Private equity pools                  |    | 351,548,845   |    | 21,108,078                      |  |
| International equity pools            |    | 284,589,845   |    | 16,619,688                      |  |
| Absolute return pools                 |    | 85,279,295    |    | 1,612,146                       |  |
| Real return and opportunistic pools   |    | 218,389,633   |    | 14,195,032                      |  |
| Short-term investment pools           |    | 95,641,506    |    | 908,874                         |  |
| Market value and net investment gain  | \$ | 1,777,451,592 | \$ | 92,691,336                      |  |



Fixed income pools - 12.3% **Domestic equity pools - 21.4% Real estate and infrastructure pools - 8.0% Private equity pools - 19.8%** International equity pools - 16.0% Absolute return pools - 4.8% **Real return and opportunistic pools - 12.3%** Short-term investment pools - 5.4%

1. Comprehensive annual financial report for the FY ended Sept. 30, 2020, Page 74.

#### 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. 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, 2020, was \$275 million, while the actuarial value of assets was \$281 million.



100

90

80

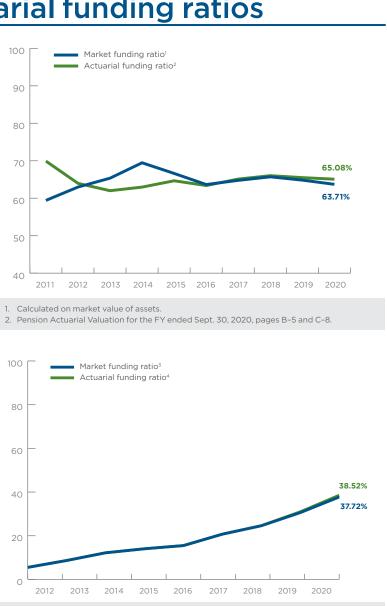
70

60

50

40

100



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 the employer 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.

#### **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. 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>  |               |  |
|---|---------------|--|
| Member contributions  |               |  |
| Weighted average  |               |  |
| Defined Benefit   | 1.58%         |  |
| Pension Plus  | 4.00%         |  |
| Employer contributions  |               |  |
| Normal cost of benefits expressed as a percentage of valuation payroll  |               |  |
| Defined Benefit   | 23.13%        |  |
| Pension Plus  | 13.24%        |  |
| UAAL contribution rate expressed as a percentage of valuation payroll   |               |  |
| Defined Benefit   | 49.30%        |  |
| Pension Plus  | 49.30%        |  |
| Valuation payroll   | \$150,160,577 |  |
| <ol> <li>Pension Actuarial Valuation for the FY ended Sept. 30, 2020, Page A-1.<br/>This is the DB component of Pension Plus. There is an additional 1% employer match<br/>for the DC component.</li> </ol> |               |  |

### **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. Examples include assumptions about future employment, investment performance, and the healthcare cost trend.

| Actuarial assumptions for FY   | ended Se   |
|--|--|
| Pension and OPEB   |  |
| Actuarial cost method  |  |
| Amortization method  |  |
| Payroll growth assumption <sup>2</sup>   | 2.2  |
| Amortization period <sup>3</sup>   |  |
| Asset valuation method   |  |
| Wage inflation rate  |  |
| OPEB   |  |
| Healthcare cost trend rate   |  |
| Pre-65   | 7.50% year 1 gra   |
| Post-65  | 6.25% year 1 gra   |
| Dental and vision premiums   |  |
| AROR—closed plan <sup>4,5</sup>  |  |
| Pension—AROR   |  |
| Legacy DB—closed plan  |  |
| Pension Plus—open plan   |  |
| <ol> <li>SPRS Pension and OPEB Actuarial Valuation for th</li> <li>PA 674 of 2018 enacted a gradual phase-in reducti<br/>increments beginning with the Sept. 30, 2019, valu<br/>in, the amortization method for both pension and i</li> <li>PA 674 of 2018 extended the amortization period fc</li> <li>The OPEB plan closed to new troopers and sergea</li> <li>These employees participate in the Personal Healt<br/>of \$2,000 into a Health Reimbursement Account u</li> </ol> | on to the payroll gro<br>ations. Once the 0%<br>OPEB will be level-d<br>or the UAAL in the Sy<br>nts first hired on or<br>hcare Fund and may<br>upon their first termi |

termination.

#### pt. 30, 2020<sup>1</sup>

Entry age, normal Level percent of payroll 25% reduced to 0% by Sept. 30, 2024 Closed period, ending Sept. 30, 2038 5-year smoothed 2.75%

aded to 3.50% year 15, 3.00% year 120 raded to 3.50% year 15, 3.00% year 120 3.50% each year, 3.00% year 120 6.90%

> 6.80% 6.85%

0, 2020.

owth assumption to 0% in 50 basis point % payroll growth assumption is fully phaseddollar.

ystem from 2036 to 2038.

after June 10, 2012.

y become eligible for a lump-sum payment ination from employment (with at least 10 years of service). These employees have the option of enrolling in System's retiree healthcare at full cost at

#### **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 Acorn Bioventures Advent International Corp. AEW Capital Management LP Affinity Equity Partners American Industrial Partners Ancora Advisors LLC Angelo Gordon Aon Hewitt Apax Partners Worldwide LLP Apollo Global Management Inc. Arboretum Ventures ArcLight Capital Partners LLC Ardian Ares Management LLC Ark Investment Management LLC Asana Partners Attucks Asset Management LLC Avanath Capital Management LLC Axiom Asia Private Capital Bank of America Merrill Lynch Bank of Montreal **Barclays** Capital Barings Alternative Investments Basalt Infrastructure Partners LLP BB&T Capital Markets BentallGreenOak Beringea Berkshire Partners LLC **BGC** Partners Bivium Capital Partners LLC BlackRock BlackRock Financial Management BlackRock Institutional Trust Company Blackstone Alternative Asset Management LP Blackstone Credit The Blackstone Group Inc. Bluescape/Carlson **BNP** Paribas **BNP** Paribas Finance BNY Convergex G.

Bridgepoint Capital BroadRiver Asset Management LP Brookfield Asset Management Inc. **BTIG Brokers** Cantor Fitzgerald Capital Institutional Services Inc. Capri Capital Partners LLC The Carlyle Group LP Carlyle Investment Management LLC Centerbridge Capital Cerberus Capital Management LP Charlesbank Capital Partners CIE Management-BC Partners CIM Investment Advisors CircleUp Network Inc. Citigroup Citigroup Global Markets Inc. **Clarion Partners** Clarkston Capital Partners LLC **Coller** Capital Columbia Management Investment Advisors CoStar Realty Information Inc. Cowen & Co. LLC Credit Suisse Credit Suisse Securities Crescent Capital Group CVC Capital Partners Czech Asset Management LP D.A. Davidson Companies DAIWA Dalmore Capital Limited Deutsche Bank Deutsche Bank Securities Inc. Domain Capital Advisors LLC Drexel Hamilton Effissimo Capital Management eFront (Via Domain) EnCap Investments LP Fidelity Institutional Asset Management FIMI Opportunity Funds FirstMark Capital

**Flagship Ventures** Fortress Investment Group LLC Fox Paine & Company LLC Freeman Spogli & Co. **FTN** Financial Gaw Capital Genstart Capital LLC Glen Eagle Wealth Glencoe Capital Goldman Sachs Group Inc. Great Mountain Partners Greenspring Associates Grosvenor Capital Management HarbourVest Partners LLC Harvest Partners LLC Heitman Capital Management LLC Highbridge Principal Strategies Hilltop Securities Inc. Hopen Life Sciences Ventures HPS Investment Partners III LLC Huron Capital Partners LLC ICG Advisors LLC InSight Venture Partners Invesco Ltd. Investors Diversified Realty Jefferies J.P. Morgan J.P. Morgan Asset Management J.P. Morgan Securities LLC Kayne Anderson Kayne Anderson Capital Advisors LP **KBS** Realty Advisors Kelso & Company Kensington Realty Advisors Khosla Ventures Kohlberg, Kravis, Roberts & Co. L&B Realty Advisors LLP Landmark Realty Advisors LaSalle Investment Management Lazard Asset Management Lead Edge Capital Leonard Green & Partners LP LGT Capital Partners

### Investment service providers, continued

Rhone Capital

**Rialto** Capital

Riverside

Silver Lake

T. Rowe Price

TPG Inc

Sixth Street Partners

Lightspeed Venture Partners Lombard International Life Assurance Company Lonestar Loomis Sayles & Company Los Angeles Capital Management Lubert-Adler Management Company Marathon Asset Management MarketAxess Corporation Martin Currie Mellon Capital Management Menlo Management Partners Merill Lynch (Bank of America) Merill Lynch Pierce Fenner & Smith LLC Merit Energy Company Meritech Capital Partners Mesirow Financial Metropolitan West Asset Management MFR Securities MI Growth Capital Partners SBIC Mischler Financial Group MKM Holdings LLC MKM Partners Morgan Stanley MUFG Multi-Bank Securities Inc. Napier Park Global Advisors Napier Park Global Capital Natural Gas Partners New Leaf Venture Partners Nordic Capital NorthPointe Capital Oak Investment Partners Oaktree Capital Management LLC Odyssey Investment Partners Orion Resource Partners Pacific Investment Management LLC Paladin Realty Partners LLC Parthenon Capital Inc. Peninsula Capital Partners LLC Permira PGIM Inc. PIMCO Mortgage Fund **Piper Jaffray** PPC Partners Inc. Principal Financial Group Principal Real Estate Advisors

Proprium Capital Partners LP Prudential Investment Management Public Pension Capital Putnam Advisory Company Raymond James & Associates Inc RBC Capital Markets LLC Renaissance Venture Capital

Ridgewood Capital Management LLC Ridgewood Energy

Robert W. Baird & Co. Inc. Roberts & Rvan The Rohatyn Group R.W. Pressprich & Co. Science Media LLC Scotia Capital Inc. Seizert Capital Partners Shamrock Capital Advisors LLC

SK Capital Partners LP Societe Generale Sprott Resource State Street Bank State Street Global Advisors Stifel Nicolaus & Co. Inc. Stockbridge Capital Group Stonepeak Advisors LLC Summit Partners SunTrust Robinson Humphrey Susquehanna International Group LLP Sycamore Partners The John Buck Company The Riverside Company The TCW Group Inc. Thomas Bravo **TICP SMA Management** TPG Real Estate Advisors Transwestern Investment Group Trilantic Capital Management LLC Trophy Property True North Management Group Trusted Insight Inc.

TSG Consumer Partners Turnbridge Capital Management LLC Turning Rock Partners U.S. Bancorp Investments Inc. Veritas Capital Fund Management LLC Vida Capital Inc. Vista Equity Partners Warburg Pincus LLC Warwick Energy Group Wayne Co. Wellington Trust Company Wells Fargo Securities LLC WestLB Asset Management LLC



#### **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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