



School Employees Retirement System of Ohio
Serving the People Who Serve Our Schools®

2021

Annual Comprehensive Financial Report

FOR THE YEAR ENDED JUNE 30, 2021



**SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
ANNUAL COMPREHENSIVE FINANCIAL REPORT**

For the year ended June 30, 2021

Prepared by SERS Staff
Richard Stensrud, Executive Director
300 E. Broad St., Suite 100, Columbus, Ohio 43215-3746
www.ohsers.org
Serving the People Who Serve Our Schools®

Mission

To provide our membership with valuable lifetime pension benefit programs and services

Vision

Through the continuous pursuit of excellence and innovative solutions, we will partner with our stake holders so that our membership will understand and achieve security in retirement

Values

- Focus
- Accountability
- Communication
- Collaboration
- Innovation

Core Beliefs

- We are here to serve.
- We are open and honest.
- We are professional.
 - We are dedicated.
 - We are enthusiastic.
- We are high performers.
- We are valuable partners.
- We are member advocates.
 - We are innovators.
 - We are SERS.

SERS Annual Comprehensive Financial Report

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“SERS’ primary objective is to assure that at the time benefits commence, sufficient funds will be available to provide retirement, disability, and survivor benefits for its members.”

– Richard Stensrud, *Executive Director*

WHERE WE STAND

\$18.4 BILLION
Net Position



146,646 Members

\$1.4 BILLION
Annual Pension Benefit
Payments



Net Rate of Return

**80,721 Retirees &
Beneficiaries**



1,053 Contracted Employers



**40,897 Total Covered Lives
(Health)**



74.46%
Funded as of June 30, 2021





Seated (front row, left to right): Hugh W. Garside Jr., Barbra M. Phillips, Jeffrey T. DeLeone, Catherine D. Moss
 Standing (back row left to right): Richard Stensrud - Executive Director, James H. Haller, Daniel L. Wilson, James A. Rossler Jr., Frank A. Weglarz, Matthew King

Hugh W. Garside Jr.
 Chair, Employee-Member
 Term Expires 6/30/2023

Catherine D. Moss
 Retiree-Member
 Term Expires 6/30/2024

James A. Rossler Jr.
 Appointed Member
 Term Expires 11/4/2024

Barbra M. Phillips
 Vice-Chair, Employee-Member
 Term Expires 6/30/2021

James H. Haller
 Employee-Member
 Term Expires 6/30/2021

Frank A. Weglarz
 Retiree-Member
 Term Expires 6/30/2021

Jeffrey T. DeLeone
 Appointed Member
 Term Expires 12/5/2024

Daniel L. Wilson
 Appointed Member
 Term Expires 9/27/2024

Matthew King
 Employee-Member
 Term Expires 6/30/2024



Richard Stensrud
Executive Director



Karen Roggenkamp
Deputy Executive Director



Joseph Bell
Chief Risk Officer



Jeff Davis
Chief Audit Officer



Farouki Majeed
Chief Investment Officer



Joseph Marotta
General Counsel



Tracy Valentino
Chief Financial Officer



Christi Pepe
Director - Health Care
Services



Michelle Miller
Director - Administrative
Services



Jay Patel
Chief Technology
Officer

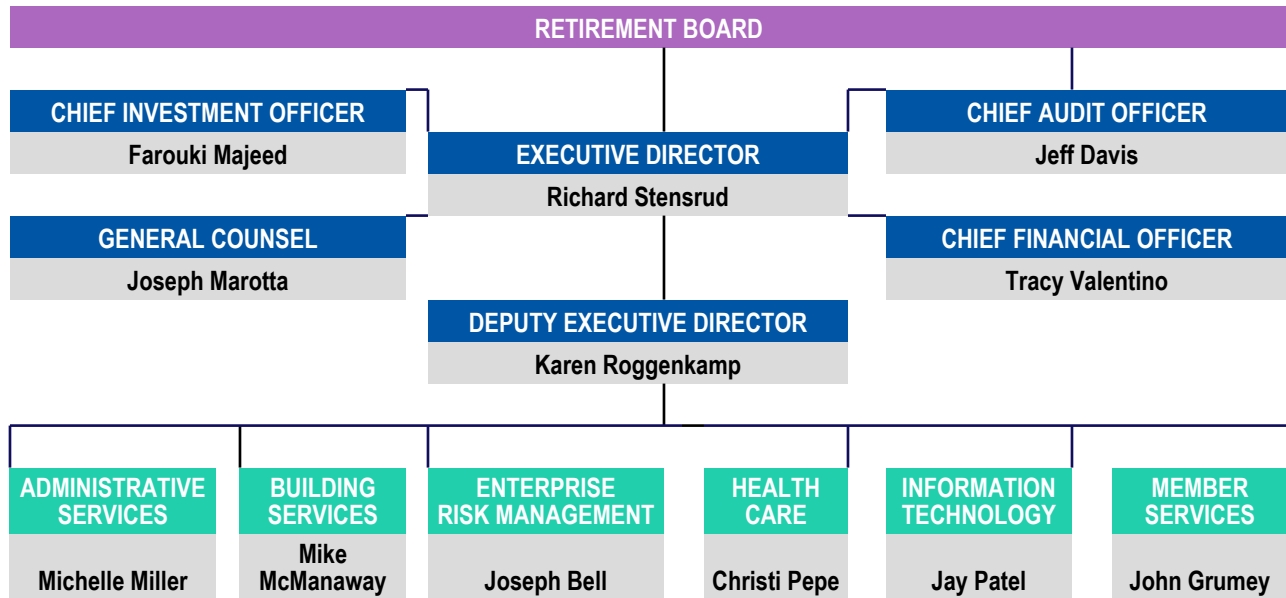


John Grumney
Director - Member
Services



Mike McManaway
Assistant Director -
Building Services

Organizational Chart and Advisors to the Retirement Board



| Advisors | |
|--|--|
| Independent Auditor | RSM US LLP Cleveland, Ohio |
| Investment Consultant | Wilshire Associates, Inc. Santa Monica, California |
| Actuary | Cavanaugh Macdonald Consulting, LLC Kennesaw, Georgia |
| Medical Advisor | Dr. Glen Borchers Columbus, Ohio |
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Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

School Employees Retirement System of Ohio

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2020

Christopher P. Morvill

Executive Director/CEO



Public Pension Coordinating Council

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

Presented to

School Employees Retirement System of Ohio

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

Presented by the Public Pension Coordinating Council, a confederation of

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

Alan H. Winkle

Alan H. Winkle
Program Administrator



SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

300 E. BROAD ST., SUITE 100 • COLUMBUS, OHIO 43215-3746
614-222-5853 • Toll-Free 800-878-5853 • www.ohsers.org

RICHARD STENSRUD
Executive Director

KAREN ROGGENKAMP
Deputy Executive Director

December 15, 2021

Dear Chair and Members of the Retirement Board:

On behalf of all management and staff, we are pleased to submit the *Annual Comprehensive Financial Report* of the School Employees Retirement System of Ohio (SERS) for the fiscal year ended June 30, 2021. We are responsible for the accuracy of the contents, and the completeness and fairness of the presentation, including disclosures. A narrative overview and analysis to accompany the basic financial statements is presented as Management's Discussion and Analysis (MD&A); it can be found immediately following the report of the independent auditor in the Financial Section. This letter of transmittal is designed to complement the MD&A.

Established in 1937 by an act of the Ohio General Assembly, SERS provides pensions and benefits to public and charter school employees who are not required to possess a certificate issued pursuant to sections 3319.22 to 3319.31 of the Ohio Revised Code in order to perform their duties. By statute, benefit plans include retirement for age and service, disability benefits, and survivor benefits that are paid upon the death of a member before retirement. A post-retirement health care program also is provided, although it is not required by law.

A system of internal accounting controls ensures the security of member and employer contributions and provides reasonable, but not absolute, assurance that assets are properly safeguarded, transactions are properly executed, and financial statements are reliable. Our independent external auditors have conducted an audit of the basic financial statements in accordance with auditing standards generally accepted in the United States of America. They have full and unrestricted access to you to discuss their audit and related findings concerning the integrity of financial reporting and adequacy of internal controls.

MAJOR INITIATIVES AND HIGHLIGHTS

Actuarial Assumptions Change after Results of Five-Year Experience Study Every five years, SERS is required by law to measure the reasonableness of the actuarial assumptions used to measure and budget future costs against SERS' actual experience over the previous five years. If actual experience differs significantly from the overall expected results, new assumptions are recommended.

SERS' economic assumptions, including price inflation, investment returns, and wage inflation, were compared to historical data from indices such as the Consumer Price Index and the S&P 500 over a 50-year period. Demographic assumptions including the rates of retirement, rates of withdrawal, rates of salary increase for merit and promotions, and mortality rates were compared to what actually occurred to the membership during the study period.

Based on the results of the study and the actuary's recommendations, the Board approved prospective changes in April 2021 to all three economic assumptions and five demographic assumptions for actuarial valuations. Price inflation decreased from 3.00% to 2.40%. This impacted the assumed investment return which decreased from 7.50% to 7.00%; the real rate of return increased from 4.50% to 4.60%. Wage inflation increased from 0.50% to 0.85%; however, because of the decrease in price inflation, the total wage inflation assumption decreased from 3.50% to 3.25%. More information about the actuarial assumptions used in the basic benefits and health care valuations can be found in the Actuarial Section.

Pandemic Spurs Innovation Due to the ongoing pandemic, SERS' information technology team added digital and virtual tools including Zoom, Microsoft Teams, and Voice Over Internet Protocol (VOIP). This technology improved staff collaboration, and member and employer outreach, and allowed live phone calls answered directly by Member Services, Health Care, and Employer Reporting, regardless of location.

Letter of Transmittal

With the addition of VOIP, SERS' staff was able to achieve similar call answering efficiency when working remotely. Call response times and hold times returned to pre-COVID levels. This was significant for our membership as we now have the capability to take phone calls even when there is no access to the building. On average, more than 90% of calls are answered on the member's first attempt.

Based on the successful implementation of remote work during the pandemic, SERS has given staff members the flexibility to work remotely one day a week, and innovations like the VOIP technology allows staff to maintain efficiency no matter where they work.

SERS' Employer Outreach staff also leveraged new technology to continue their statewide training programs. Because employer reporting is a critical component of tracking contributions and service time for SERS members, the Employer Outreach team provides numerous in-person individual and group training sessions each year all over the state. When schools implemented remote learning and hybrid learning models and SERS halted staff travel, the Employer Outreach team continued to provide monthly group eSERS trainings virtually.

Employer Outreach also was able to provide virtual one-on-one trainings in FY2021. These one-on-one trainings consisted of an Employer Outreach representative providing virtual personalized training to address specific issues the employer or contractor was experiencing.

In addition, the Employer Outreach team represented SERS at multiple virtual meetings sponsored by advocacy groups that represent active members.

Improving Customer Service through Counseling and Disability Surveys During the fiscal year, staff developed surveys for members to share their experience during their recent disability application process and counseling sessions. Using the feedback from members, staff identified areas that could benefit from process improvement and implementing changes where possible.

The disability survey asked questions about the amount of time it took to complete the process as well as staff outreach during the process, while the counseling survey asked questions about the materials provided and overall satisfaction with the phone interview and staff knowledge. Both surveys include questions regarding the member's use of SERS' website and Account Login.

American Rescue Plan Act of 2021 Reduces Costs for Under 65 Marketplace Health Plans The American Rescue Plan Act of 2021 expanded access to lower health care premiums and out-of-pocket costs for people under age 65 who enrolled with a Marketplace health plan. A Special Enrollment Period for the Marketplace was held so that current enrollees could update their Marketplace applications to receive increased tax credits that reduced 2021 premiums. SERS mailed letters to the 220 Wraparound HRA enrollees informing them of this opportunity. HealthSCOPE Benefits assisted enrollees with their application updates. SERS also sent a letter to non-Medicare group plan benefit recipients encouraging them to consider the new Marketplace premiums and Wraparound HRA plan, which costs less for members and SERS.

Protecting SERS' Critical Processes During FY2021, SERS' Enterprise Risk Management (ERM) team focused on upgrading the System's business continuity and disaster recovery plans. Working from a list of 11 critical processes identified by leadership, the ERM team prepared impact assessments and drafted individual incident response plans for each one. Once these plans are finalized, annual tabletop exercises will be conducted to test the plans, make improvements, and prepare staff for their roles in the event of an actual emergency.

Additionally, the ERM team contracted with an external vendor for a strategic review to assess SERS' current data backup operations and recommend improvements. The review indicated that a cloud or cloud-hybrid data backup data center could be beneficial, so the team will issue a Request for Proposal (RFP) next fiscal year. A secondary site helps ensure SERS' continued resiliency in the event of an extended business interruption.

INVESTMENTS

SERS' investment portfolio is diversified by asset class, investment approach, and individual investments within each asset class to reduce overall portfolio risk and volatility. At year end, SERS' investment portfolio at fair value was \$18.2 billion. The investment return was 26.8% (net) for the fiscal year exceeding the policy benchmark by 3.2% and the actuarial assumed return of 7.00%. Net investment income was \$4.1 billion compared to \$424.2 million in FY2020. The SERS Investment Committee structure was fully operational and represents a leading practice in investment operations. For more information on SERS' portfolio performance and investment strategy and policy, please turn to the Investment Section of this report.

Upon becoming SERS' investment consultant in 2016, Wilshire Associates (Wilshire), in partnership with SERS' investment staff, completed an asset liability review. SERS' staff and Wilshire explored numerous change options, most involving the reduction of the multi-asset strategies portfolio and increases in dedicated mandates such as high-yield bonds, emerging market debt, and master limited partnerships. Ultimately, staff recommended and Wilshire supported a proposal to change the existing asset allocation. The FY2021 allocation is 22.5% for US equity, 22.5% for non-US equity, 11% for private equity, 21% for fixed income and cash, 16% for real assets, 3% for private credit and 4% for multi-asset strategies.

FUNDING

SERS' primary objective is to assure that at the time benefits commence, sufficient funds will be available to provide retirement, disability, and survivor benefits for its members. In addition, SERS is committed to sustaining contribution rates that remain level from generation to generation.

SERS' benefits are separated to comply with various sections of the Internal Revenue Code (IRC), and then reported and valued for funding purposes in accordance with relevant GASB statements. For FY2021, the funded ratios for the three benefits mandated by statutes increased, which was due to impact of changes to COLA eligibility made in previous years, slower growth in the number of new retirees, and the performance of SERS' investments. The funding level for pension benefits increased from 71.5% over a 24-year period to 74.5% over a 23-year period. The funding level for discretionary health care benefits increased from 26.9% to 46.6% over a 30-year period. Historical information related to progress on meeting the funding objective can be found in the Required Supplementary Information in the Financial Section of this report.

AWARDS AND ACKNOWLEDGMENTS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to SERS for its *Annual Comprehensive Financial Report (ACFR)* for the fiscal year ended June 30, 2020. This was the 36th consecutive year that SERS has received this prestigious award. A Certificate of Achievement is valid for a period of one year only. We believe that our current ACFR continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

The GFOA gave SERS an Award for Outstanding Achievement in Popular Annual Financial Reporting for its *Summary Annual Financial Report (SAFR)* for the fiscal year ended June 30, 2020. SERS first issued the SAFR for fiscal year ended June 30, 2013 and has received this award for eight consecutive years. An Award for Outstanding Achievement in Popular Annual Financial Reporting is valid for one year only.

We believe that our current SAFR continues to meet the Award for Outstanding Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

The Public Pension Coordinating Council (PPCC) awarded to SERS the Public Pension Standards Award for 2021. Developed by the PPCC to promote excellence in meeting professional standards for plan funding and administration among state and local public retirement systems, the Public Pension Standards are the benchmark for measuring current practices of defined benefit plans. The PPCC is a coalition of three national associations that represent public retirement systems and administrators: the National Association of State Retirement Administrators, the National Council on Teacher Retirement, and the National Conference on Public Employee Retirement Systems.

This report represents the collaboration of SERS' staff and advisors. Our sincere appreciation is extended to all those who contributed to the completion of this report. This report is intended to provide complete and reliable information as a basis for management decisions, for compliance with legal requirements, and as a measurement of the responsible stewardship of SERS' assets.

In closing, we recognize that our strength is a reflection of the quality of our staff. We value their efforts that enable us to maintain effective internal controls while at the same time deliver high quality service to our members, retirees, and employers.

Respectfully submitted,

Richard Stensrud
Executive Director

Tracy L. Valentino, CPA
Chief Financial Officer

Legislative Summary

SERS and its members can be significantly affected by legislation enacted by the Ohio General Assembly and Congress. SERS closely monitors legislative and regulatory activities, and when appropriate, provides testimony or otherwise educates Ohio legislators, congressional representatives, and regulatory agencies on the impact of those proposals.

State Legislation

FROM THE 133RD GENERAL ASSEMBLY:

HB308 Post-Traumatic Stress Fund (04/12/2021, Effective) To provide compensation and benefits to first responders with post-traumatic stress disorder and to study the financial and administrative requirements for that fund. Requires the Board of Trustees of the Ohio Police and Fire Pension Fund, in consultation with specified entities, including SERS, to have prepared an actuarial valuation and report that answers specific questions about funding and administrative requirements associated with paying claims from the fund.

HB442 Occupational Regulations (04/12/2021, Effective) Requires pupil services personnel to register with the Department of Education, rather than hold a separate license from the State Board of Education as under prior law. The change applies to school speech language pathologists, audiologists, school nurses, physical therapists, occupational therapists, and social workers, who are licensed by their respective professional boards. The provision impacts certain nurses who are covered under SERS and subsequently would be covered by STRS.

FROM THE 134TH GENERAL ASSEMBLY:

HB110 Operating Budget (07/01/2021, Effective) To make operating appropriations for the biennium beginning July 1, 2021, and ending June 30, 2023, to levy taxes, and to provide authorization and conditions for the operation of state programs. The legislation ended temporary authority for public entities to meet remotely using technological means as of July 1, 2021.

Federal Legislation

FROM THE 117TH CONGRESS:

HR 3 Elijah E. Cummings Lower Drug Costs Now Act (04/23/2021, Referred to Subcommittee on Health) - The bill would establish several programs and requirements relating to the prices of prescription drugs, health care coverage and costs, and public health. Restructures Medicare Part D rebates in a way that would impact SERS' Employer Group Waiver Plan (EGWP). Similar to Senate proposal (PDPRA).

HR 82 Social Security Fairness Act of 2021 (01/04/2021, Referred to the House Committee on Ways and Means) - This bill would repeal the Government Pension Offset and Windfall Elimination Provisions. Companion bill to S 1302.

HR 328 Wall Street Tax Act of 2021, (01/15/2021, Referred to House Committee on Ways and Means) - This bill would create a financial transaction tax on the sale of stocks, bonds, and derivatives at 0.1 percent (10 basis points). Companion bill to S 817.

HR 1319 American Rescue Plan Act of 2021 (03/11/2021, Became Public Law No: 117-2) - COVID-19 relief bill. Provided \$1.9 trillion funding for economic stimulus, including \$350 billion in aid to state and local government. Provisions included to prohibit deposit of relief funds into any pension fund.

HR 2337 Public Servants Protection and Fairness Act (04/01/2021, Referred to the House Committee on Ways and Means) - This bill would amend title II of the Social Security Act to provide an equitable Social Security formula for individuals with non-covered employment and to provide relief for individuals currently affected by the Windfall Elimination Provision.

HR 2954 Securing a Strong Retirement Act of 2021 (05/05/2021, Ordered to be reported by House Committee on Ways and Means) - Referred to as SECURE Act 2.0, the legislation would make several changes to retirement savings programs including raising the required minimum distribution (RMD) age to 75.

Regulatory Activity

SERS closely monitored the rebate rule revived by President Donald Trump's HHS late last year. The proposed regulation would replace protections for drug rebates in Medicare Part D with protections for discounts provided directly to consumers. Implementation would negatively impact SERS' EGWP plan. The Biden Administration has instituted a one-year delay for implementation until January 2023. The action gives the administration time to evaluate whether the rule has an impact on plan sponsors like SERS, premiums for retirees, and Medicare Part D enrollees.

The Securities and Exchange Commission has two lawsuits pending, one which stemmed from its decision last year that raised the bar for filing resolutions at annual shareholder meetings. The other pending suit, filed by Institutional Shareholder Services (ISS), in October 2019, against the SEC, challenges the interpretation and guidance issued by the SEC that applies the proxy solicitation rules. The outcomes will be informative for SERS' corporate governance program.

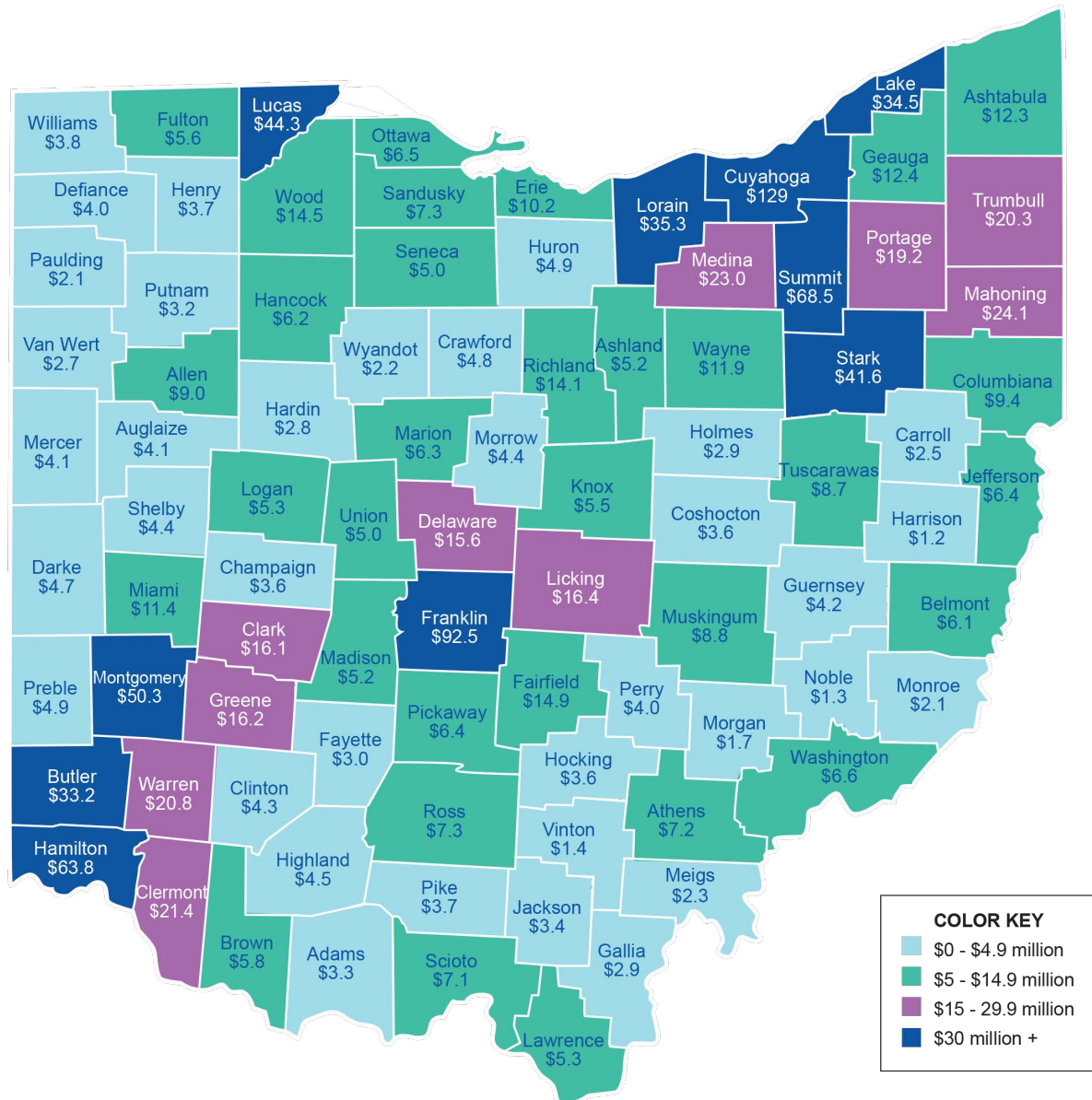
Economic Impact

Pension Benefits by County FY2021

(\$ in millions)

Public pensions positively impact Ohio's economy. Of the 80,721 individuals receiving pension benefits from SERS, nearly 91% live in Ohio.

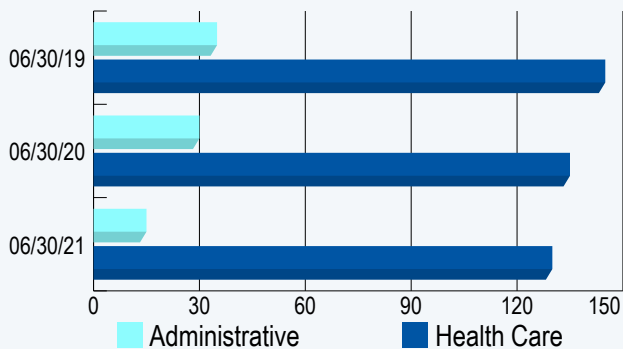
In FY2021 alone, benefit payments of approximately \$1.4 billion were distributed among Ohio's 88 counties, positively impacting the state's economy. For every dollar in employer contributions invested in SERS' retirement benefits last year, \$2.67 was returned to local economies.



FINANCIAL SECTION

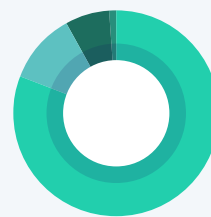
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Controlling Expenses (in millions)



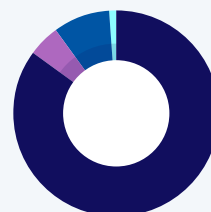
Through a culture that exemplifies ownership and innovation, SERS' staff knows the importance of what it costs to administer the System and prioritizes work on decreasing those costs. Total health care expenses have decreased year over year since FY2015.

REVENUES



- Investment Income 81%
- Employer Contributions 11%
- Member Contributions 7%
- Other 1%

EXPENSES



- Pension Benefits 85%
- Refunds and Transfers 5%
- Health Care 9%
- Administrative 1%



Independent Auditor's Report

The Retirement Board
School Employees Retirement System of Ohio
and The Honorable Keith Faber

Report on the Financial Statements

We have audited the accompanying financial statements of School Employees Retirement System of Ohio (SERS), which comprise the statement of fiduciary net position as of June 30, 2021, and the related statement of changes in fiduciary net position for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise SERS basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of SERS as of June 30, 2021, and the respective changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

THE POWER OF BEING UNDERSTOOD
AUDIT | TAX | CONSULTING

RSM US LLP is the U.S. member firm of RSM International, a global network of independent audit, tax, and consulting firms. Visit rsmus.com/aboutus for more information regarding RSM US LLP and RSM International.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and the Schedule of Changes in the Employers' Net Pension Liability, the Schedule of the Net Pension Liability, the Schedule of Employer Contributions, the Schedule of Investment Returns, the Schedule of Changes in the Net OPEB Liability, the Schedule of the Net OPEB Liability, the Schedule of Employer Contributions – OPEB, the Schedule of Investment Returns – OPEB, the Schedule of SERS' Proportionate Share of the Net Pension Liability – OPERS Traditional Pension Plan, the Schedule of SERS' Proportionate Share of the Net Pension Liability – OPERS Combined Pension Plan, the Schedule of Contributions – OPERS Traditional Pension Plan, the Schedule of Contributions – OPERS Combined Pension Plan, the Schedule of SERS' Proportionate Share of the Net OPEB Liability - OPERS, and the Schedule of OPEB Contributions – OPERS and the related notes on pages 16 to 21 and 44 to 51 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise SERS's basic financial statements. The other supplementary information, including the schedule of administrative expenses, investment expenses, and payments to consultants, as listed in table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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

Other Information

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

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated December 9, 2021 on our consideration of SERS's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of SERS's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering SERS's internal control over financial reporting and compliance.

RSM US LLP

Cleveland, Ohio
December 9, 2021

Management's Discussion and Analysis (unaudited)

Introduction

This section presents management's discussion and analysis of the School Employees Retirement System of Ohio's financial performance for fiscal year ended June 30, 2021. This information is based on SERS' financial statements, which begin on page 22. We encourage readers to consider the information presented here in conjunction with the information in our Letter of Transmittal, which is found in the Introductory Section of this report. In addition to historical information, Management's Discussion and Analysis includes forward-looking statements that involve certain risks and uncertainties. Actual results, performance, and achievements may differ from those expressed or implied in such forward-looking statements, due to a wide range of factors, including changes in the securities markets, general economic conditions, and legislative changes, as well as other factors.

FINANCIAL HIGHLIGHTS

- SERS' total assets at June 30, 2021 were \$18.8 billion, an increase of \$3.5 billion, or 23.1%, compared to FY2020 assets. Cash and Short Term Investments are 76.8% higher than FY2020. Investments had a strong year which accounted for the majority of the increases in assets. Investments increased by \$3.0 billion, a 21.3% increase. There was also a \$5.0 million increase in pension assets and a \$15.8 million increase in OPEB assets recognized as part of recording the increases in Net Pension Assets and activity from the Ohio Public Employees Retirement System (OPERS) that flowed through to SERS in compliance with Governmental Accounting Standards Board (GASB) pronouncements.
- Deferred outflows from from SERS' participation in OPERS decreased from FY2020 to FY2021. The deferred outflows from Pensions decreased \$1.7 million and deferred outflows from Other Post Employment Benefits (OPEB) decreased \$2.9 million.
- SERS' total liabilities at June 30, 2021 were \$298.5 million, a decrease of \$(26.5) million, or, (8.2)% compared to FY2020 liabilities. The decrease was due to the timing of investment transactions resulting in a lower Investment Payable balance at year end.
- Deferred inflows changed substantially from FY2020 to FY2021. The deferred inflows from SERS' participation in OPERS also increased from FY2020 to FY2021. Deferred inflows from Pensions decreased by \$0.1 million and deferred inflows from OPEB increased by \$2.8 million. Deferred inflows from tenant leases decreased by \$0.9 million.
- Total additions to plan net position were \$5.1 billion, comprised of contributions of \$884.5 million, \$84.1 million of other income and net investment income of \$4.1 billion. This was an increase of \$3.7 billion in investment income from FY2020 to FY2021. The markets recovered in FY2021, despite the ongoing pandemic, with strong investment returns in FY2021.
- Total deductions from plan net position for FY2021 totaled \$1.5 billion, including benefits payments of \$1.4 billion and administrative expenses of \$16.1 million, a decrease of (0.1)% from FY2020 deductions. Small increases in benefit payments were offset by a significant reduction in Administrative expenses resulting from SERS recognizing their portion of OPERS pension income and OPEB income, \$3.3 million and \$10.1 million respectively. Included in administrative expenses are personnel, professional, communications, computer support, facilities expenses and depreciation.
- The net increase in plan net position was \$3.5 billion compared to a net decrease of \$(106.0) million in FY2020. The majority of the variance was due to strong investment earnings in FY2021.

Management's Discussion and Analysis (unaudited)

| CONDENSED SUMMARY OF TOTAL FIDUCIARY NET POSITION | | | | |
|---|--------------------|--------------------|-------------------|---------------|
| (\$ in millions) | | Change | | |
| ASSETS | 2021 | 2020 | Amount | Percent |
| Cash | \$ 1,174.2 | \$ 664.3 | \$ 509.9 | 76.8 % |
| Receivables | 163.4 | 196.9 | (33.5) | (17.0) |
| Investments | 17,352.6 | 14,310.1 | 3,042.5 | 21.3 |
| Capital Assets, Net | 59.0 | 62.3 | (3.3) | (5.3) |
| Other Assets | 3.3 | 0.9 | 2.4 | 266.7 |
| Total Assets | 18,752.5 | 15,234.5 | 3,518.0 | 23.1 |
| DEFERRED OUTFLOWS OF RESOURCES | | | | |
| Deferred Outflows | 2.0 | 6.5 | (4.5) | (69.2) |
| LIABILITIES | | | | |
| Benefits & Accounts Payable | 41.4 | 42.5 | (1.1) | (2.6) |
| Other Liabilities | 257.1 | 282.5 | (25.4) | (9.0) |
| Total Liabilities | 298.5 | 325.0 | (26.5) | (8.2) |
| DEFERRED INFLOWS OF RESOURCES | | | | |
| Deferred Inflows | 15.4 | 13.6 | 1.8 | 13.2 |
| Fiduciary Net Position | \$ 18,440.6 | \$ 14,902.4 | \$ 3,538.2 | 23.7 % |

| CONDENSED SUMMARY OF CHANGES IN TOTAL FIDUCIARY NET POSITION | | | | |
|--|--------------------|--------------------|-------------------|---------------|
| (\$ in millions) | | Change | | |
| ADDITIONS | 2021 | 2020 | Amount | Percent |
| Contributions | \$ 884.5 | \$ 892.4 | \$ (7.9) | (0.9)% |
| Other Income | 84.1 | 97.4 | \$ (13.3) | (13.7)% |
| Net Investment Income | 4,088.6 | 424.2 | 3,664.4 | 863.8 |
| Total Additions | 5,057.2 | 1,414.0 | 3,643.2 | 257.7 |
| DEDUCTIONS | | | | |
| Benefits | 1,425.1 | 1,412.8 | 12.3 | 0.9 |
| Refunds & Transfers | 77.8 | 76.3 | 1.5 | 2.0 |
| Admin. Expenses | 16.1 | 30.9 | (14.8) | (47.9) |
| Total Deductions | 1,519.0 | 1,520.0 | (1.0) | (0.1) |
| Net Increase (Decrease) | 3,538.2 | (106.0) | 3,644.2 | (3,437.9) |
| Balance, Beginning of Year | 14,902.4 | 15,008.4 | (106.0) | (0.7) |
| Balance, End of Year | \$ 18,440.6 | \$ 14,902.4 | \$ 3,538.2 | 23.7 % |

OVERVIEW OF FINANCIAL STATEMENTS

SERS' financial statements are prepared in accordance with generally accepted accounting principles in the United States of America. Management's Discussion and Analysis is intended to serve as an introduction to SERS' financial statements, which are prepared using the accrual basis of accounting. Following Management's Discussion and Analysis are the basic financial statements. Reviewing these statements, along with the accompanying notes, gives the reader a better understanding of SERS' financial position.

The Statement of Fiduciary Net Position is a point-in-time snapshot of SERS' assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position at fiscal year-end. Net position represents the amount of total assets and deferred outflows of resources less total liabilities and deferred inflows of resources.

The Statement of Changes in Fiduciary Net Position presents the additions and deductions for the fiscal year. Major sources of additions are contributions and investment income. Major sources of deductions are benefits, refunds, and administrative expenses.

The Notes to Financial Statements supply additional information that is essential for a full understanding of the data provided in the financial statements. The notes describe the history and purpose of the plans; present information about accounting policies; and disclose material risks, subsequent events, and contingent liabilities, if any, that may significantly impact SERS' financial position.

In addition to the financial statements and notes, the following supplementary information is also provided:

- Required supplemental information that presents SERS' proportionate share of the Ohio Public Employees Retirement System (OPERS) net pension liability;
- Required supplemental information that presents SERS' contribution to pension based on statutory requirements;
- Required supplemental information that presents SERS' proportionate share of the OPERS net other post-employment benefits (OPEB) liability;
- Required supplemental information that presents SERS' contribution to OPEB based on statutory requirements; and
- Optional supplemental schedules that present information related to funding progress, employer contributions, administrative expenses, and investment-related expenses.

The financial statements, notes, and Required Supplementary Information (RSI) are presented in compliance with GASB Statement No. 84, *Fiduciary Activities*.

In accordance with GASB Statement No. 68, the net pension liability equals SERS' proportionate share of OPERS' unfunded actuarial accrued liability. However, SERS is not responsible for certain key factors affecting the balance of this liability. In Ohio, the employee shares the obligation of funding pension benefits with the employer. Both employer and employee contribution rates are capped by state

Management's Discussion and Analysis (unaudited)

statute. A change in these caps requires action of both houses of the general assembly and approval by the governor. Benefit provisions also are determined by state statute. In Ohio, public employers are not legally bound to pay off the unfunded liabilities of the public pension systems. The pension systems are solely responsible for the prudent fiscal administration of their plans.

In accordance with GASB Statement No. 75, the net OPEB liability equals SERS' proportionate share of the OPERS unfunded liability. However, SERS is not responsible for certain key factors affecting the balance of this liability. OPERS' Board of Directors determines on an annual basis the percentage of total employer contributions to be allocated to health care. The portion of Traditional Pension Plan and Combined Plan employer contributions was 0% for calendar year 2020. Contributions are expected to continue at that rate for the next several years. In Ohio, health care is a discretionary benefit; it is not guaranteed by statute. Public employers are also not legally bound to pay off the OPEB liabilities of the public pension systems. The pension systems are solely responsible for the prudent fiscal administration of their plans.

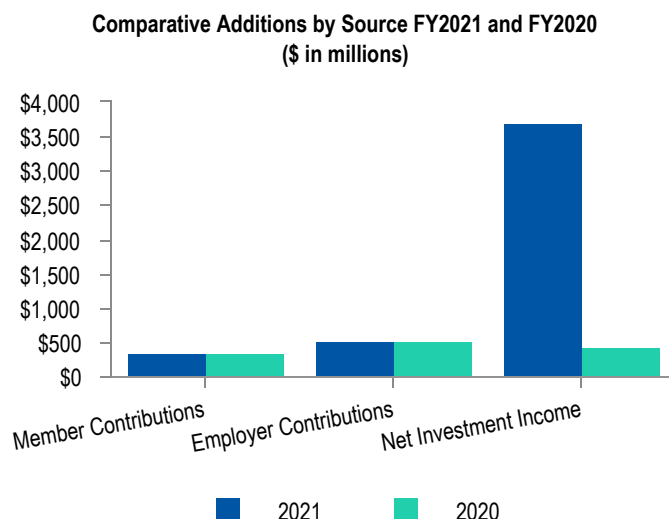
Most long-term liabilities have set repayment schedules or, in the case of compensated absences (i.e., sick and vacation leave), are satisfied through paid time-off or termination payments. There is no repayment schedule for the net pension liability or the net OPEB liability. Changes in pension benefits, OPEB benefits, contribution rates, and return on investments affect the balance of the net pension liability and the net OPEB liability, but are outside the control of SERS. In the event that contributions, investment returns, and other changes are insufficient to keep up with required pension payments, state statute does not assign/identify the responsible party for the unfunded portion.

FINANCIAL ANALYSIS

A statewide defined benefit public pension plan, such as SERS, has a long-term perspective on financial activities. SERS' primary responsibility is to assure that sufficient funds will be available to provide retirement, disability, and survivor benefits, Medicare Part B premium reimbursements, and lump sum death benefits. Laws governing SERS' financing intend the contribution rates to remain approximately level from generation to generation.

A Condensed Summary of Total Fiduciary Net Position and a Condensed Summary of Changes in Fiduciary Net Position as of June 30, 2021 and 2020, are shown on page 16.

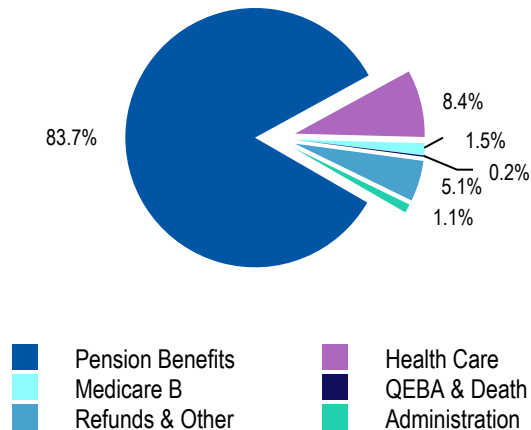
SERS is comprised of five separate funds – the Pension Trust Fund, the Medicare B Fund, the Death Benefit Fund, the Qualified Excess Benefit Arrangement (QEBA) Fund, and the Health Care Fund. Pension benefits are funded through a combination of employee and employer contributions and investment income. Medicare Part B premium reimbursements and death benefits are funded through employer contributions and investment income. The QEBA, a separate plan under Internal Revenue Code §415, is funded by contributions from the retiree's last employer and invested separately in a short-term investment fund. Funding for the Health Care Fund comes from employers, retiree premium payments, the federal government, and investment income. The graph below, "Comparative Additions by Source FY2021 and FY2020", depicts the proportion that each source added to the fund's assets.



Management's Discussion and Analysis (unaudited)

Expenses were incurred primarily for the purpose for which SERS was created: the payment of benefits to non-teaching Ohio public school, community school, and community college employees. Included in the deductions from fiduciary net position were benefit payments, refunds of contributions due to member terminations or deaths, net transfers to other Ohio retirement systems to provide benefits for those members who had membership in more than one system, and administrative expenses.

**Deductions from Plan Fiduciary Net Position
FY2021**



SERS' fiduciary net position increased by \$3.5 billion during FY2021, compared to a net decrease of \$(106.0) million in FY2020.

- For financial statement purposes, employee contributions consist of 10% of reported payroll, and member purchases of restored and optional service credits. Employer contributions include 14% of reported payroll, the employer's share of optional and compulsory purchased service credit, early retirement incentives, and the health care surcharge which is capped at 1.5% of statewide Employer payroll. Employer contributions in excess of those required to support the Pension, Medicare B, and Death Benefit Funds may be allocated to the Health Care Fund.

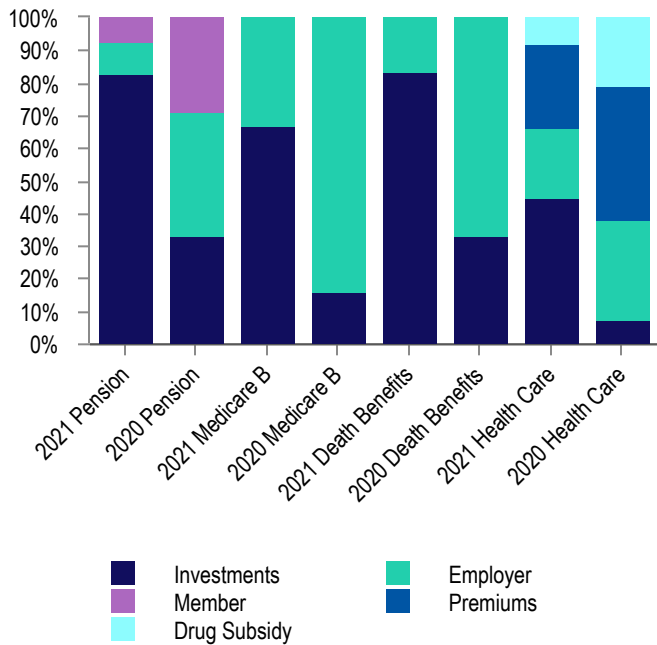
Effective June 18, 2015, SERS adopted a new funding policy that allocates a higher portion of the employer contribution toward the Pension, Medicare B, and Death Benefit Funds until the fund achieves a funded status of 90%.

- Employee contributions and employer contributions, excluding the surcharge, decreased (1.8%). Many schools had virtual education versus live instruction for a portion of the year. This resulted in lower payrolls for our members which include non-teaching personnel in schools along with school bus drivers.
- Employer contributions to the Health Care Fund are derived from two sources. The first source is an allocation of the employers' 14% contribution after pension benefits are funded. Because of SERS' funding policy, a maximum of 0.50% of the employer contribution was available for the Board to allocate to the Health Care Fund in FY2021. The Board ultimately decided to allocate the remaining portion available to the basic benefits to increase the pension funding level. The second is a health care surcharge for members who earn less than an actuarially determined minimum salary, which is established annually by the Board based on the actuary's recommendation. Regardless of the minimum compensation amount, legislated limits on SERS' surcharge revenue restrict the actual surcharge to 1.5% of statewide payroll, and no employer pays more than 2.0% of the district's payroll. The surcharge increased from \$46.4 million in FY2020 to \$53.5 million in FY2021. The surcharge increase of \$7.1 million includes a retroactive billing of \$3.7 million to Employers due to the adoption of a revised minimum compensation level for FY2020 that occurred in FY2021.
- Along with employer contributions and investment income, additions to the Health Care Fund included health care premiums paid by retirees. Enrollment and total premiums declined approximately 1.6% from FY2020 to FY2021.
- The other sources of contributions to the Health Care Fund include a net reimbursement from the federal program for Medicare Part D qualified prescription drug plans (PDP) and from our primary Medicare Advantage provider based on a risk-sharing contract effective January 1, 2011. Premiums for this program are estimated at the beginning of the contract and then adjusted based on actual claims experience and Medicare reimbursements. If experience is favorable, SERS receives a payment for the adjusted premium; however, if experience is not favorable, SERS pays an additional premium to the provider.
- Investment income is allocated to all funds except the QEBA. It is presented net of investment fees and is comprised of interest, dividends, and realized and unrealized investment gains and losses. Investment expense is comprised of external manager, custody,

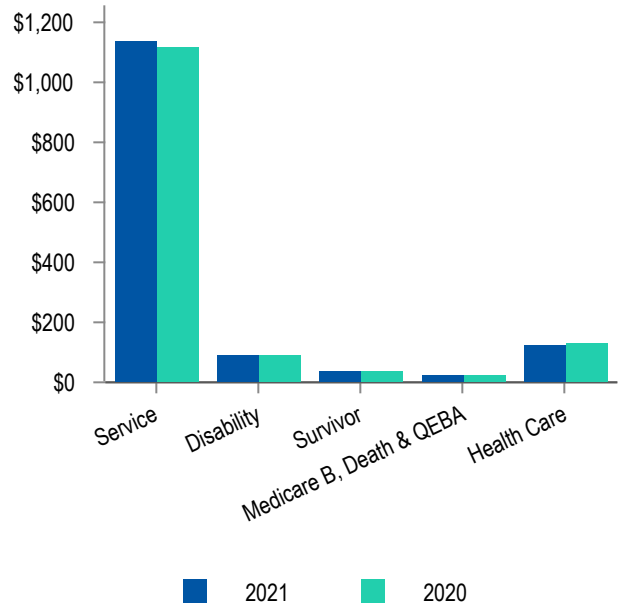
Management's Discussion and Analysis (unaudited)

master record keeper fees, and internal investment and accounting expenses. SERS' investment portfolio, with the exception of cash and short-term investments, is managed by external investment managers. SERS had a net investment gain of \$4.1 billion compared to a gain of \$424.2 million in FY2020. Investment performance was strong, despite the ongoing global pandemic.

Comparison of Additions to Fiduciary Net Position by Fund



Comparative Benefit Payments FY2021 and FY2020 (\$ in millions)



- Payments to service, disability, and survivor benefit recipients increased \$18.5 million, or 1.5% during FY2021. Service retirement payments increased 1.9%, disability payments decreased (2.9%), and survivor benefits payments increased 0.2%. A 0.5% simple COLA was adopted for CY2021, which applied to half our fiscal year.
- Total refunds paid decreased (0.7%) from FY2020 to FY2021. A lump sum of employee contributions was only distributed to members who had terminated public employment, applied for a refund, and waited for expiration of the 90-day waiting period that begins with the last day of service. SERS' members cannot take partial distributions. Reemployed retirees who were eligible for an annuity may elect a lump sum distribution, which included the employee's contributions, a portion of the employer's contributions, and interest.
- If a member has been employed in a job covered by the State Teachers Retirement System of Ohio (STRS) or the Ohio Public Employees Retirement System (OPERS) defined-benefit plans, as well as in a job covered by SERS, the member may receive a retirement benefit independently from each system, if eligible, or combine the service credit and accounts in all the systems to receive one benefit at retirement. The system that holds the greatest service credit will calculate and pay the benefit; the employee's full contributions and a share of the employer contributions and interest are transferred to the paying system. Net transfers to other Ohio systems increased in FY2021 when compared to FY2020.
- SERS reimburses a portion (\$45.50) of the Medicare Part B monthly premium to retirees eligible for SERS' health care program who provide proof of enrollment in Medicare Part B. The reimbursement amount, established by statute, has not changed since 2001; therefore, changes in expense are driven by eligible retirees' enrollment in Medicare Part B or termination of a benefit. Medicare Part B expenses remained substantially the same in FY2021. The eligibility of new retirees to receive the Part B reimbursement is now tied to enrollment in one of SERS' health care plans.
- SERS pays a \$1,000 death benefit, established by statute in 2001, to the designated beneficiary of service and disability retirees. Death benefit payments increased 25.3% in FY2021. We believe the higher death rates are the result of the global pandemic.
- Most retirees and dependents choosing SERS' health care coverage are over the age of 65 and, therefore, enrolled in a fully insured Medicare Advantage plan; however, SERS maintains a traditional, self-insured preferred provider organization for its non-Medicare retiree population. For both groups, SERS offers a self-insured prescription drug program. Health care expenses decreased \$6.9 million, or 5.1%, to \$128.1 million. Our goals for the non-Medicare program are to provide access to quality coverage at an affordable cost and to focus on care management to improve the quality of care and to lower costs. Health care is a benefit that is permitted, not

Management's Discussion and Analysis (unaudited)

mandated, by statute. Our funding policy is to maintain the Health Care Fund with a 20-year solvency period to ensure that the fluctuations in the cost of health care do not cause an interruption in the program.

ACTUARIAL

The annual actuarial valuation measures the total liability for all benefits earned to date. The accrued liability is a present value estimate of all the benefits that have been earned to date but not yet paid. The actuarial accrued liability (AAL) for the four funds changed as follows:

| Fund | AAL FY2021 | AAL FY2020 | Increase/ (Decrease) | % Change |
|-------------|---------------|---------------|-------------------------|-------------|
| Pension | \$ 21,097 | \$ 20,601 | \$ 496 | 2.4 % |
| Medicare B | 391 | 393 | (2) | (0.5) |
| Death | 41 | 40 | 1 | 2.5 |
| Health Care | 1,289 | 1,797 | (508) | (28.3) |

The unfunded accrued liability (UAL) is the present value of the future benefits payable that are not covered by the actuarial value of assets as of the valuation date. The funded ratio reflects the percentage of the accrued liability covered by the actuarial value of assets. A decrease in the UAL indicates progress towards funding. The unfunded liability and the funded ratio changed as follows:

| Fund | UAL FY2021 | UAL FY2020 | Increase/ (Decrease) | % Change | Funded Ratio FY2021 | Funded Ratio FY2019 |
|-------------|---------------|---------------|-------------------------|----------|---------------------------|---------------------------|
| Pension | \$ 5,316 | \$ 5,790 | \$ (474) | (8.2)% | 74.8 % | 71.9 % |
| Medicare B | 169 | 194 | (25) | (12.9) | 57.0 | 50.6 |
| Death | 13 | 13 | — | — | 68.3 | 67.5 |
| Health Care | 689 | 1,314 | (625) | (47.6) | 46.5 | 26.9 |

To completely understand the funding status of SERS, it is important to analyze actuarial data in combination with financial data. The actuarial data provided in the two previous tables are presented using an actuarial or funding basis. The funding basis uses an actuarial value of assets that smooths market gains and losses over a closed four-year period subject to a 20% market corridor. This differs from an accounting basis (utilized in accordance with GASB 67 and GASB 74) that calculates the funding status using the fair value of assets.

As a result of actuarial smoothing, the fair value of assets may be more than or less than the actuarial or funding value of assets at a given point in time. In periods of protracted market decline, the fair value of assets will usually be less than the actuarial or funding value of assets. In contrast, during periods of protracted market gains, the fair value of assets will generally be greater than the actuarial or funding value of assets.

To ensure the funding value of assets and the fair value of assets remain within reasonable proximity of each other, SERS uses a 20% market corridor in conjunction with its four-year smoothing. This policy ensures that the funding value of assets is neither lower than 80%, nor higher than 120% of the fair value of the assets. At the end of FY2020, the fair value of assets was below the funding value by \$617 million. At the end of FY2021, the fair value of assets was higher than the funding value by \$1,808 million.

As of June 30, 2021, the date of the latest actuarial valuation, the funded ratio for basic pension was 74.46%. In general, this means that for every dollar of future pension liability, SERS had accumulated approximately \$0.74 to meet that obligation. The funded ratio for basic pension increased from June 30, 2020 by 2.97%. The June 30, 2021 actuarial report indicated that, if all actuarial assumptions were met, SERS would accumulate sufficient assets to pay all pension liabilities for active members and retirees within 23 years compared to 24 years at June 30, 2020.

Management's Discussion and Analysis (unaudited)

CONDITIONS EXPECTED TO AFFECT FINANCIAL POSITION OR RESULTS OF OPERATIONS

SERS' primary objective is to assure that at the time benefits commence, sufficient funds will be available to provide retirement, disability, and survivor benefits for its members. In addition, SERS is committed to sustaining contribution rates that remain level from generation to generation.

A pension sustainability committee has been formed and is evaluating all the variables in the current pension model. This includes investment returns, contribution levels, contribution rates, service credit rates, minimum age requirements, along with a variety of other variables. The committee continues to meet on a regular basis to determine what adjustments may need to be made to ensure the continued sustainability of the system.

A five-year actuarial experience study was performed in the spring of FY2021. Results from this study provided the Board with useful insight on adjustments to actuarial assumptions used in valuations, and may be beneficial to them during the pension sustainability discussions. As a result of the study, new actuarial assumptions were adopted by the Board for the June 30, 2021 actuarial valuations for Pension and Health Care.

Markets are expected to remain volatile over the next several years. The Strategic Investment Plan has been designed to improve the portfolio structures to optimize returns while minimizing risks. Overweight portions of investments in Global Equities have been gradually reduced. Global Fixed Income investments are underweight and Cash Equivalent investments are overweight to try to mitigate risk.

COVID-19 continues to impact financial markets, schools, and the overall economy. It is unknown how long this pandemic will continue. Although Financial markets recovered in FY2021, it is unknown how long it will continue.

In May 2020, GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements (SBITA)*. Under this Statement, a government generally should recognize a right-to-use subscription asset, an intangible asset, and a corresponding subscription liability. A government should recognize the subscription liability at the commencement of the subscription term, which is when the subscription asset is placed into service. The subscription liability should be initially measured at the present value of subscription payments expected to be made during the subscription term. Future subscription payments should be discounted using the interest rate the SBITA vendor charges the government, which may be implicit, or the government's incremental borrowing rate if the interest rate is not readily determinable. A government should recognize amortization of the discount on the subscription liability as an outflow of resources (for example, interest expense) in subsequent financial reporting periods. The effective date of this standard is reporting periods beginning after June 15, 2022. SERS is currently evaluating this statement.

In October 2021, GASB issued Statement No. 98, *The Annual Comprehensive Financial Report*. The requirements of this Statement are effective for fiscal years beginning after December 15, 2021. The statement updates the document name and acronym. SERS has early implemented this standard and it is reflected in this document.

REQUEST FOR INFORMATION

This financial report is designed to provide the Retirement Board, our membership, employers, and investment managers with a general overview of SERS' finances. Questions concerning any of the information provided in this report or requests for additional financial information should be directed to:

School Employees Retirement System of Ohio
Finance Department
300 East Broad Street, Suite 100
Columbus, Ohio 43215-3746

Basic Financial Statements

STATEMENT OF FIDUCIARY NET POSITION AS OF JUNE 30, 2021

| | Pension Trust Fund | Medicare B Fund | Death Benefit Fund | QEBA Fund | Health Care Fund | TOTAL |
|--|--------------------------|-----------------------|----------------------|-------------------|-----------------------|--------------------------|
| ASSETS | | | | | | |
| Cash & Operating Short Term Investments | \$ 1,069,815,068 | \$ 17,718,106 | \$ 1,661,106 | \$ 234,385 | \$ 84,843,051 | \$ 1,174,271,716 |
| Receivables | | | | | | |
| Contributions | | | | | | |
| Employer | 569,683 | 1,241,724 | 231,214 | — | 48,203,549 | 50,246,170 |
| Employee | 3,545,153 | — | — | — | — | 3,545,153 |
| Investments Receivable | 89,692,614 | 1,247,576 | 161,030 | — | 2,547,034 | 93,648,254 |
| Other Receivables | 4,795,600 | 1,768 | — | — | 11,132,025 | 15,929,393 |
| Total Receivables | 98,603,050 | 2,491,068 | 392,244 | — | 61,882,608 | 163,368,970 |
| Investments at Fair Value | | | | | | |
| US Equity | 4,970,445,596 | 69,136,235 | 8,923,713 | — | 141,147,572 | 5,189,653,116 |
| Non-US Equity | 3,451,806,300 | 48,012,776 | 6,197,217 | — | 98,022,213 | 3,604,038,506 |
| Private Equity | 2,081,903,555 | 28,958,163 | 3,737,755 | — | 59,120,581 | 2,173,720,054 |
| Fixed Income | 3,507,248,128 | 48,783,942 | 6,296,755 | — | 99,596,615 | 3,661,925,440 |
| Real Estate | 2,536,460,509 | 35,280,806 | 4,553,846 | — | 72,028,803 | 2,648,323,964 |
| Total Investments at Fair Value | 16,547,864,088 | 230,171,922 | 29,709,286 | — | 469,915,784 | 17,277,661,080 |
| Securities Lending Collateral at Fair Value | 71,759,854 | 998,141 | 128,834 | — | 2,037,791 | 74,924,620 |
| Capital Assets | | | | | | |
| Land | 3,315,670 | — | — | — | — | 3,315,670 |
| Property & Equipment, at Cost | 97,593,771 | — | — | — | — | 97,593,771 |
| Accumulated Depreciation and Amortization | (41,930,990) | — | — | — | — | (41,930,990) |
| Property & Equipment, Book Value | 58,978,451 | — | — | — | — | 58,978,451 |
| Prepays and Other Assets | 3,349,296 | — | — | — | 259 | 3,349,555 |
| TOTAL ASSETS | 17,850,369,807 | 251,379,237 | 31,891,470 | 234,385 | 618,679,493 | 18,752,554,392 |
| DEFERRED OUTFLOWS OF RESOURCES | | | | | | |
| Deferred Outflows - Pension | 1,002,081 | — | — | — | — | 1,002,081 |
| Deferred Outflows - OPEB | 948,412 | — | — | — | — | 948,412 |
| LIABILITIES | | | | | | |
| Accounts Payable & Accrued Expenses | 28,716,215 | (388) | 2,323 | 204 | 11,357,087 | 40,075,441 |
| Benefits Payable | 720,827 | — | 590,000 | — | — | 1,310,827 |
| Investments Payable | 174,832,080 | 2,431,821 | 313,886 | — | 4,964,771 | 182,542,558 |
| Obligations under Securities Lending | 71,395,589 | 993,074 | 128,180 | — | 2,027,447 | 74,544,290 |
| TOTAL LIABILITIES | 275,664,711 | 3,424,507 | 1,034,389 | 204 | 18,349,305 | 298,473,116 |
| DEFERRED INFLOWS OF RESOURCES | | | | | | |
| Deferred Inflows - Pension | 6,390,561 | — | — | — | — | 6,390,561 |
| Deferred Inflows - OPEB | 5,702,420 | — | — | — | — | 5,702,420 |
| Deferred Inflows - Leases | 3,327,432 | — | — | — | — | 3,327,432 |
| FIDUCIARY NET POSITION RESTRICTED FOR PENSION | \$ 17,561,235,176 | \$ 247,954,730 | \$ 30,857,081 | \$ 234,181 | \$ — | \$ 17,840,281,168 |
| FIDUCIARY NET POSITION RESTRICTED FOR OTHER POSTEMPLOYMENT BENEFITS | \$ — | \$ — | \$ — | \$ — | \$ 600,330,188 | \$ 600,330,188 |
| FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS | \$ 17,561,235,176 | \$ 247,954,730 | \$ 30,857,081 | \$ 234,181 | \$ 600,330,188 | \$ 18,440,611,356 |

See accompanying notes to the financial statements.

Basic Financial Statements

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED JUNE 30, 2021

| | Pension Trust Fund | Medicare B Fund | Death Benefit Fund | QEBA Fund | Health Care Fund | TOTAL |
|--|--------------------------|-----------------------|----------------------|-------------------|-----------------------|--------------------------|
| ADDITIONS | | | | | | |
| Contributions | | | | | | |
| Employer | \$ 456,195,419 | \$ 26,273,453 | \$ 1,382,813 | \$ 355,442 | \$ 53,533,333 | \$ 537,740,460 |
| Employee | 346,781,820 | — | — | — | — | 346,781,820 |
| Other Income | | | | | | |
| Health Care Premiums | — | — | — | — | 63,990,508 | 63,990,508 |
| Federal Subsidies & Other Receipts | — | — | — | — | 20,059,596 | 20,059,596 |
| | 802,977,239 | 26,273,453 | 1,382,813 | 355,442 | 137,583,437 | 968,572,384 |
| Income from Investment Activity | | | | | | |
| Net Appreciation in Fair Value | 3,699,885,821 | 50,578,283 | 6,615,899 | — | 105,377,312 | 3,862,457,315 |
| Interest and Dividends | 311,664,253 | 4,264,905 | 557,767 | 218 | 8,911,852 | 325,398,995 |
| | 4,011,550,074 | 54,843,188 | 7,173,666 | 218 | 114,289,164 | 4,187,856,310 |
| Investment Expenses | (89,319,857) | (1,221,023) | (159,716) | — | (2,543,940) | (93,244,536) |
| Investment Administrative Expenses | (6,482,159) | (88,376) | (11,627) | — | (184,986) | (6,767,148) |
| Net Income from Investment Activity | 3,915,748,058 | 53,533,789 | 7,002,323 | 218 | 111,560,238 | 4,087,844,626 |
| Income from Securities Lending Activity | | | | | | |
| Gross Income | 446,291 | 6,101 | 798 | — | 12,711 | 465,901 |
| Brokers' Rebates | 308,697 | 4,220 | 552 | — | 8,792 | 322,261 |
| Management Fees | (54,126) | (740) | (97) | — | (1,541) | (56,504) |
| Net Income from Securities Lending Activity | 700,862 | 9,581 | 1,253 | — | 19,962 | 731,658 |
| Total Investment Income | 3,916,448,920 | 53,543,370 | 7,003,576 | 218 | 111,580,200 | 4,088,576,284 |
| TOTAL ADDITIONS | 4,719,426,159 | 79,816,823 | 8,386,389 | 355,660 | 249,163,637 | 5,057,148,668 |
| DEDUCTIONS | | | | | | |
| Benefits | | | | | | |
| Retirement | 1,139,424,266 | 20,885,774 | — | 343,700 | — | 1,160,653,740 |
| Disability | 90,688,344 | 1,229,228 | — | — | — | 91,917,572 |
| Survivor | 40,622,837 | 798,753 | — | — | — | 41,421,590 |
| Death | — | — | 2,962,198 | — | — | 2,962,198 |
| Health Care Expenses | — | — | — | — | 128,132,981 | 128,132,981 |
| | 1,270,735,447 | 22,913,755 | 2,962,198 | 343,700 | 128,132,981 | 1,425,088,081 |
| Refunds and Lump Sum Payments | 72,374,764 | — | — | — | — | 72,374,764 |
| Net Transfers to Other Ohio Systems | 5,424,513 | — | — | — | — | 5,424,513 |
| Administrative Expenses | 12,704,584 | 6,453 | 59,297 | 2,577 | 3,311,946 | 16,084,857 |
| | 90,503,861 | 6,453 | 59,297 | 2,577 | 3,311,946 | 93,884,134 |
| TOTAL DEDUCTIONS | 1,361,239,308 | 22,920,208 | 3,021,495 | 346,277 | 131,444,927 | 1,518,972,215 |
| Net Increase | 3,358,186,851 | 56,896,615 | 5,364,894 | 9,383 | 117,718,710 | 3,538,176,453 |
| FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS | | | | | | |
| Fiduciary Net Position, Beginning of Year | 14,203,048,325 | 191,058,115 | 25,492,187 | 224,798 | 482,611,478 | 14,902,434,903 |
| Fiduciary Net Position Restricted For Pension | \$ 17,561,235,176 | \$ 247,954,730 | \$ 30,857,081 | \$ 234,181 | \$ — | \$ 17,840,281,168 |
| Fiduciary Net Position Restricted For Other Postemployment Benefits | \$ — | \$ — | \$ — | \$ — | \$ 600,330,188 | \$ 600,330,188 |
| Fiduciary Net Position, End of Year | <u>\$ 17,561,235,176</u> | <u>\$ 247,954,730</u> | <u>\$ 30,857,081</u> | <u>\$ 234,181</u> | <u>\$ 600,330,188</u> | <u>\$ 18,440,611,356</u> |

See accompanying notes to the financial statements.

1. Summary of Significant Accounting Policies

Basis of Accounting The financial statements of the School Employees Retirement System of Ohio (SERS) are prepared using the accrual basis of accounting. Member and employer contributions are recognized in the period in which the contributions are due based on statutory or contractual requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Use of Estimates In preparing financial statements in conformity with governmental accounting principles generally accepted in the United States of America, SERS' management makes estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates and assumptions. Certain SERS investment assets, in particular Global Real Assets, Global Private Equity, and Opportunistic and Tactical investments, use estimates in reporting fair value in the financial statements. These estimates are subject to uncertainty in the near term, which could result in changes in the values reported for those assets in the Statement of Fiduciary Net Position.

Health Care Expenses Incurred and Unpaid Amounts accrued for health care expenses payable for recipients under age 65 in the Health Care Fund are based upon estimates that have been developed from prior claims experience.

Allocation of Expenses to Plans Direct expenses are charged to the fund for which they are incurred. All indirect expenses are paid by the Pension Trust Fund and are reimbursed by the Medicare B, Death Benefit, and Health Care funds in proportion to their use of the assets.

Benefit Payments Benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms.

Investments Investment purchases and sales are recorded as of the trade date. Dividend income is recognized on the ex-dividend date. Other investment income is recognized when earned.

Investments are reported at fair value. Fair value is the amount reasonably expected to be received for an investment in a current sale between a willing buyer and a willing seller. Fixed income securities, real estate investment trusts (REITs), derivative instruments, and common and preferred stocks are valued based on published market prices and quotations from national security exchanges and securities pricing services. International stocks are then adjusted to reflect the current exchange rate of the underlying currency. Investments for which no national exchanges or pricing services exist, such as private equity assets, are valued at fair value by the investment partnership based on the valuation methodology outlined in the partnership agreement. Real estate may be valued by the manager or independent appraisers.

Commingled assets that are not traded on a national exchange are valued by the commingled manager. SERS performs due diligence reviews of the investment pricing, process, and infrastructure of private equity, commingled, and real estate investments to assure that the asset values provided by the managers are reasonable.

Net appreciation (depreciation) is determined by calculating the change in the fair value of investments between the beginning of the year and the end of the year, less purchases of investments at cost, plus sales of investments at fair value. Investment expenses consist of external expenses directly related to SERS' investment operations, as well as the internal administrative expenses associated with SERS' investment program.

The monies held by the Pension Trust, Medicare B, Death Benefit, and Health Care funds are pooled for the purpose of the investment of those funds. Each fund holds units of the investment pool, which are adjusted on a monthly basis. The value of one unit of the pool on June 30, 2021, was \$3,342.54. The unit holdings and net value of each of the funds at the close of the fiscal year were:

| INVESTMENT POOL AS OF JUNE 30, 2021 | | |
|-------------------------------------|------------------|--------------------------|
| | Units | Value |
| Pension Trust Fund | 5,200,179 | \$ 17,381,793,376 |
| Medicare B Fund | 72,332 | 241,771,431 |
| Death Benefits Fund | 9,336 | 31,206,485 |
| Health Care Fund | 147,672 | 493,597,182 |
| Total | 5,429,519 | \$ 18,148,368,474 |

Notes to the Basic Financial Statements June 30, 2021

Office Building, Equipment, and Fixtures (Non-Investment Assets) The cost of equipment and fixtures in excess of \$5,000 is capitalized at cost when acquired. Improvements that increase the useful life of the property are capitalized. Maintenance and repairs are charged to expense as incurred. Software costs in excess of \$25,000 are capitalized. Intangible assets, such as internally-developed software, are capitalized in accordance with GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*. Depreciation and amortization have been provided using the straight-line method over the following useful lives:

| Description | Estimated Lives |
|------------------------------------|-----------------|
| Furniture, Equipment, and Software | 3-7 years |
| Building and Improvements | 40 years |
| Internally-developed Software | 17 years |

Reserves Ohio Revised Code Section 3309.60 establishes various reserves to account for future and current benefit payments. These are:

- **Employees' Savings Fund** Accumulated members' contributions are held in trust pending refund or transfer to another account other than the Guarantee Fund or Expense Fund.
- **Employers' Trust Fund** Accumulated employer contributions are held for future benefit payments.
- **Annuity and Pension Reserve Fund** This reserve contains the monies set aside to pay all annuities and pensions. Money is transferred to this fund from the Employees' Savings Fund, Employers' Trust Fund, and Guarantee Fund at the time of retirement.
- **Survivors' Benefit Fund** Monies in this account are set aside to finance payments to beneficiaries of deceased members. Money is transferred to this fund from the Employees' Savings Fund, Employers' Trust Fund, and Guarantee Fund in an amount to fund all liabilities at the end of each year.
- **Guarantee Fund** Income derived from the investment pool and any gifts or bequests are accumulated in this fund. The balance in this fund is transferred to other reserves to aid in the funding of future benefit payments and administrative expenses.
- **Expense Fund** This fund provides for the payment of administrative expenses with the necessary money allocated to it from the Guarantee Fund.

| RESERVE BALANCES AS OF JUNE 30, 2021 | |
|--------------------------------------|--------------------------|
| | Reserve Amount Totals |
| Employees' Savings Fund | \$ 3,582,367,223 |
| Employers' Trust Fund | 1,242,129,629 |
| Annuity and Pension Reserve Fund | 13,242,581,706 |
| Survivors' Benefit Fund | 373,532,798 |
| Guarantee Fund | — |
| Expense Fund | — |
| Total | \$ 18,440,611,356 |

2. Description of the System

Organization SERS is a statewide, cost-sharing, multiple-employer defined benefit public pension plan. Established by state law in 1937, SERS provides retirement, disability, and survivor benefits to non-teaching employees of Ohio's public K-12 school districts, vocational, technical, and community schools, community colleges, and the University of Akron.

The Retirement Board is responsible for the general administration and management of the System. The Board comprises nine members: four elected employee members; two elected retiree members; and three appointed investment expert members. One investment expert is appointed by the Governor, a second one by the State Treasurer, and the third one jointly by the Speaker of the House and President of the Senate.

Several separate funds comprise the Retirement System. The pension funds include the Pension Trust Fund, the Medicare B Fund, the Death Benefit Fund, and the Qualified Excess Benefit Arrangement (QEBA) Fund. The Pension Trust Fund holds the funds to pay the basic retirement, disability, and survivor benefits authorized under state law, Ohio Revised Code (ORC) Chapter 3309. The Medicare B

Notes to the Basic Financial Statements June 30, 2021

Fund reimburses a portion of the Medicare Part B premiums paid by eligible benefit recipients as permitted under ORC Section 3309.69. The current reimbursement is \$45.50 per month. The Death Benefit Fund pays \$1,000 to a designated beneficiary of a deceased retiree or disability benefit recipient as allowed under ORC Section 3309.50. The QEBA Fund pays benefits as allowed by federal tax law to retirees whose SERS benefits exceed Internal Revenue Code (IRC) 415(b) limits. A fifth fund, the Health Care Fund, provides money for payment of health care expenses under SERS' health care coverage for retirees and other benefit recipients.

Pension Benefits Following the passage of Senate Bill 341, SERS' pension reform legislation, new age and service requirements for retirement became effective January 7, 2013. For members who retired on or after August 1, 2017, the new requirements are:

- age 67 with 10 years of service credit, or age 57 with 30 years of service credit, to retire with full benefits; or
- age 62 with 10 years of service credit, or age 60 with 25 years of service credit, to retire early with actuarially-reduced benefits.

To protect the benefits of longtime members, SERS included a grandfather provision and a buy-up option that gave members the opportunity to retire under the previous age and service credit requirements after August 1, 2017.

The grandfather provision allowed members, who attained 25 years of service on or before August 1, 2017, to retire under the previous age and service credit eligibility requirements.

These age and service requirements were:

- any age with 30 years of service credit to retire with full benefits; or
- age 60 with 5 years of service credit, or age 55 with 25 years of service credit to retire with actuarially-reduced benefits.

The buy-up option allowed members with fewer than 25 years of service credit as of August 1, 2017, to retire under the previous retirement eligibility requirements if they paid the actuarial difference between the benefit they would have received under the new requirements and the benefit they would have received under the previous requirements. Members who wanted to buy-up must have completed their payment on or before August 1, 2017.

The current formula used in calculating an annual retirement benefit is as follows: number of years of service credit up to 30 years x 2.2% of the member's final average salary (FAS) + number of years of service credit over 30 years x 2.5% of FAS. For SERS, FAS equals the average of the highest three years of salary. If the member does not meet the age and service requirements to retire with full benefits, the annual benefit is reduced to cover a longer period of retirement.

If a member has been employed in a job covered by the State Teachers Retirement System of Ohio (STRS) or the Ohio Public Employees Retirement System (OPERS) as well as in a job covered by SERS, at retirement the member may receive a retirement benefit independently from each of the systems, if eligible, or may combine the service credit and accounts in all the systems to receive one benefit. The system with the greatest service credit will be the system that will calculate and pay the benefit. While the salaries in one year will be added together, if the member has service credit in each system for the same year, the member cannot be credited with more than one year of service credit.

If a retiree from OPERS, SERS, STRS, Ohio Police & Fire, or Ohio State Highway Patrol is employed in a SERS-covered position, then employee and employer contributions are required for the new position. The retiree accrues a new benefit in the form of an annuity based on the contributions paid by the retiree and the employer payable at age 65 or termination of employment, whichever is later. This is separate from the original SERS benefit. There are no other benefits available and the retiree does not accrue any additional service credit for the period of reemployment. Prior to age 65 and after termination of employment, a reemployed retiree may request a refund of the employee contributions for the reemployed period.

EMPLOYER AND EMPLOYEE MEMBERSHIP DATA

(as of June 30, 2021)

| Employer Members | |
|---|----------------|
| Local | 371 |
| City | 191 |
| Educational Service Center | 52 |
| Village | 49 |
| Higher Education | 15 |
| Vocational/Technical | 49 |
| Community Schools | 305 |
| Other | 21 |
| Total | 1,053 |
| Employee Members and Retirees | |
| Retirees and Beneficiaries Currently Receiving Benefits | 80,721 |
| Inactive Employees Entitled to But Not Yet Receiving Benefits | 5,972 |
| Total | 86,693 |
| Active Employees | |
| Vested Active Employees | 44,997 |
| Non-vested Active Employees | 101,649 |
| Total | 146,646 |

3. Contributions

State retirement law requires contributions by covered employees and their employers, and limits the maximum rate of contributions. The Retirement Board sets contribution rates within the allowable limits. The adequacy of employer contribution rates is determined annually by actuarial valuation using the entry age normal cost method. During FY2021, employees and their employers were required to contribute 10% and 14%, respectively, of active member payroll.

Employer (excluding surcharge discussed below) and employee contributions were \$484.2 million and \$346.8 million, respectively, in FY2021. The contribution amounts also included contributions for purchased service credit.

The Retirement Board, acting with the advice of the actuary, allocates the current employer contribution rate among the funds of the System. For FY2021, the allocation of the employer contribution rate to pension plan benefits was established as the rate necessary to cover normal cost and amortize the unfunded accrued liability. The 14% contribution rate paid by employers was allocated to the funds as follows:

| | |
|--------------------|---------|
| Pension Trust Fund | 13.20 % |
| Medicare B Fund | 0.76 % |
| Death Benefit Fund | 0.04 % |
| Health Care Fund | — % |

The portion of the employer contribution not required to actuarially fund the pension plans (Pension Trust Fund, Medicare B Fund, and Death Benefit Fund) may be available for the Health Care Fund, depending on funded ratios. The funded ratio for the basic benefits in FY2021 was 74.46%, which was above the 70% funded ratio that would permit an allocation to the Health Care Fund. The amount of employer contributions directed to the Health Care fund in FY2021 was zero. A health care surcharge on employers was collected for employees earning less than an actuarially determined minimum compensation amount, and was pro-rated according to service credit earned during the year. Statutes provide that no employer shall pay a health care surcharge greater than 2.0% of that employer's SERS-covered payroll; nor may SERS collect in aggregate more than 1.5% of total statewide SERS-covered payroll for the health care surcharge. For FY2021, the minimum compensation level was established at \$23,000. The surcharge accrued for FY2021 and included in employer contributions in the Statement of Changes in Fiduciary Net Position is \$53.5 million.

4. Funding Policy

The statute sets a contribution cap of 24% of payroll; 14% from employers and 10% from employees. Employer contributions in excess of those required to support the basic benefits may be allocated to retiree health care funding. If the funded ratio is less than 70%, the entire 14% employers' contribution shall be allocated to SERS' basic benefits. If the funded ratio is 70% but less than 80%, at least 13.50% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 80% but less than 90%, at least 13.25% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers' contribution that is not needed to fund SERS' basic benefits.

5. Fair Value Measurement

SERS investments are measured at fair value within the fair value hierarchy established by GASB Statement No. 72, *Fair Value Measurement and Application*. This Statement established a three-tier, hierarchical reporting framework which ranks the level of market price observations used in measuring fair value. The hierarchy is based on the valuation inputs used to measure the fair value of the investment and gives the highest ranking to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest ranking to unobservable inputs (Level 3). Inputs refer to the assumptions that market participants would use in valuing the asset or liability, including assumptions about risk, for example, the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) and/or the risk inherent in the inputs to the valuation technique. The categorization of the investments within the hierarchy is based upon the valuation transparency of the instrument and should not be perceived as the particular investment's risk. The three-tier hierarchy is summarized as follows:

Level 1 – Unadjusted quoted prices for identical instruments in active markets.

Level 2 – Quoted prices in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3 – Valuations reflect practices where significant inputs are unobservable.

Investments in certain entities that calculate a net asset value (NAV) per share (or its equivalent) sometimes do not have a readily determinable fair value. For these investments, governmental accounting standards permit establishment of fair value using a practical expedient based on the NAV per share (or its equivalent).

The table on page 29, presents the fair value hierarchy of SERS' investment portfolio as of June 30, 2021.

Bond Mutual Funds generally include investments in money market-type securities that are reported at either fair value or at cost plus accrued interest, which approximates market or fair value.

Equity, US Corporate Obligations, US Government, and derivative instruments classified in Level 1 are valued using prices quoted in active markets for those securities.

Debt and derivative instruments classified in Level 2 are valued using either a bid evaluation or a matrix based pricing technique. Bid evaluations are typically based on market quotations, yields, maturities, call features, and ratings. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Index linked debt securities are valued by multiplying the external market price by the applicable day's Index Ratio. Level 2 debt securities have non-proprietary information that was readily available to market participants, from multiple independent sources, which are known to be actively involved in the market.

Equity and equity derivative instruments classified in Level 2 are securities whose values are derived daily from associated traded securities.

Debt, equities, and investment derivative instruments classified in Level 1 of the fair value hierarchy are valued directly from a predetermined primary external pricing vendor. Assets classified in Level 2 are subject to pricing by an alternative pricing source due to lack of information available by the primary vendor.

The fair values of investments in certain equity, fixed income, and marketable alternative funds are based on the investments' net asset value provided by the investee. Investments that are measured at fair value using the net asset value as practical expedient are not classified in the fair value hierarchy.

Notes to the Basic Financial Statements June 30, 2021

INVESTMENTS AND SHORT-TERM HOLDINGS MEASURED AT FAIR VALUE

(\$ in thousands)

| Investments by Fair Value Level | 6/30/2021 | Fair Value Measurements Using | | |
|--|----------------------|---|--|--|
| | | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| Debt Securities | | | | |
| Bond Mutual Funds | \$ 918,298 | \$ 918,298 | \$ — | \$ — |
| Certificates of Deposit | 2,535 | — | 2,535 | — |
| Foreign Obligations | 368,310 | 2,815 | 362,429 | 3,066 |
| Mortgage and Asset Backed | 208,710 | — | 208,710 | — |
| Municipal Obligations | 26,934 | — | 26,934 | — |
| US Corporate Obligations | 639,101 | — | 637,913 | 1,188 |
| US Government | 1,017,821 | 487,931 | 529,890 | — |
| Total Debt Securities | 3,181,709 | 1,409,044 | 1,768,411 | 4,254 |
| Equity Securities | | | | |
| Foreign Common & Preferred Stock | 3,604,140 | 2,751,960 | — | 852,180 |
| US Common & Preferred Stock | 4,860,907 | 3,956,887 | 23,962 | 880,058 |
| Total Equity Securities | 8,465,047 | 6,708,847 | 23,962 | 1,732,238 |
| Total Investments by Fair Value Level | \$ 11,646,756 | \$ 8,117,891 | \$ 1,792,373 | \$ 1,736,492 |
| Investments Measured at the net asset value (NAV) | | | | |
| Commingled Bond Funds | \$ 75,305 | | | |
| Commingled Equity Funds | 328,511 | | | |
| Hedge Funds | 682,737 | | | |
| Private Credit Funds | 637,439 | | | |
| Private Equity Funds | 2,173,720 | | | |
| Private Real Estate Funds | 2,648,324 | | | |
| Total Investments Measured at the NAV | 6,546,036 | | | |
| Total Investments Measured at Fair Value | \$ 18,192,792 | | | |
| Investment Derivative Instruments | | | | |
| Foreign Equity Derivatives | \$ (844) | \$ (851) | \$ 7 | |
| Foreign Fixed Derivatives | 2,247 | (117) | 2,364 | |
| US Commodity Derivatives | (55) | (55) | — | |
| US Equity Derivatives | 197 | 197 | — | |
| US Fixed Derivatives | 781 | 826 | (45) | |
| Total Investment Derivative Instruments | \$ 2,326 | \$ — | \$ 2,326 | |

Notes to the Basic Financial Statements June 30, 2021

INVESTMENTS MEASURED AT THE NET ASSET VALUE

(\$ in thousands)

| Investments by Fair Value Level | 6/30/2021 | Unfunded Commitments | Redemption Frequency (If Currently Eligible) | Redemption Notice Period |
|--|---------------------|----------------------|--|--------------------------|
| Commingled Bond Funds ⁽¹⁾ | \$ 75,305 | \$ — | Monthly | 1-10 Days |
| Commingled International Equity Funds ⁽¹⁾ | 328,511 | — | Daily, Semi-Monthly, Monthly | 1-120 Days |
| Hedge Funds | | — | | |
| Event Driven ⁽²⁾ | 161,707 | — | Monthly, Quarterly | 45-90 Days |
| Multi-Strategy / Risk Focus ⁽³⁾ | 204,413 | — | Daily, Monthly | 1-45 Days |
| Relative Value ⁽⁴⁾ | 233,127 | — | Quarterly | 60-90 Days |
| Tactical Trading ⁽⁵⁾ | 83,490 | — | Quarterly | 30 Days |
| Private Credit Funds ⁽⁶⁾ | 637,439 | 1,178,455 | Not Eligible | Not Eligible |
| Private Equity Funds ⁽⁶⁾ | 2,173,720 | 1,540,259 | Not Eligible | Not Eligible |
| Private Real Estate Funds ⁽⁶⁾ | 2,648,324 | 609,588 | Not Eligible | Not Eligible |
| Total Investments Measured at the NAV | \$ 6,546,036 | | | |

(1) *Commingled Bond Funds, Equity Funds, and Real Estate Investment Funds* One bond fund, 23 equity funds, and one real estate investment fund are considered to be commingled in nature. Each is valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.

(2) *Event Driven Hedge Funds* Consisting of six funds, this strategy seeks to gain an advantage from pricing inefficiencies that may occur in the onset or aftermath of a corporate action or related event. These investments are valued at NAV per share. Due to contractual lock-up restrictions, approximately 99% of the value of these investments are eligible for redemption in the next six months. The remaining 5% of these investments remains restricted through the next year.

(3) *Multi-Strategy / Risk Focus Hedge Funds* The two funds included in this group aim to pursue varying strategies in order to diversify risks and reduce volatility. These investments are valued at NAV per share, and are redeemable within a month or less, as they are not subject to lock-up restrictions.

(4) *Relative Value Hedge Funds* Consisting of five funds, this strategy's main focus is to benefit from valuation discrepancies that may be present in related financial instruments by simultaneously purchasing or selling these instruments. These investments are valued at NAV per share. Due to contractual lock-up restrictions, approximately 98% of these investments are eligible for redemption in the next 6 months. The remaining 2% of the value of these investments are eligible within the next 12 months.

(5) *Tactical Trading Hedge Funds* The primary focus of the one fund within this group is to invest across multiple strategies based upon the outcomes of economic and technical analyses, with the goal of long-term benefit. These investments are valued at NAV per share. Due to contractual lock-up restrictions, approximately 100% of these investments are eligible for redemption in the next six months.

(6) *Private Credit, Private Equity, and Private Real Estate Funds* SERS' Private Credit portfolio consists of 22 private partnerships providing exposure to distressed debt, SERS' Private Equity portfolio consists of 93 funds, investing primarily in Buyout Funds, with some exposure to Distressed Funds, Special Situations, Structured Debt, and Venture Capital. The Real Estate portfolio, comprised of 37 funds, invests mainly in U.S. commercial real estate. The fair values of these funds are measured at net asset value, and are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over the span of 5 to 10 years.

6. Cash Deposits and Investments

Custodial Credit Risk, Deposits Custodial credit risk for deposits is the risk that in the event of a bank failure, SERS' deposits may not be returned. In accordance with state law, the Board of Deposit designates SERS' depository bank, and the Treasurer of State serves as custodian and contracts depository services for all of SERS' deposits. Therefore, SERS does not have a policy for deposit custodial credit risk.

At June 30, 2021, the carrying amounts of SERS' operating and investment cash deposits totaled \$255,973,701, and the corresponding bank balances totaled \$231,185,951. Of the bank balances, the Federal Deposit Insurance Corporation insured \$1,805,945. In accordance with state law, bank balances of \$154,321,824 were collateralized at 71% with securities held in the name of SERS' pledging financial institutions. The remaining bank deposits of \$75,058,182 were uninsured and uncollateralized.

Custodial Credit Risk, Investments Custodial credit risk for investments is the risk if the securities are uninsured, are not registered in the name of the SERS and are held by either the counterparty or the counterparty's trust department or agent, but not in the SERS name. As of June 30, 2021, approximately \$6.5 billion of SERS' assets are not held by the custodians or registered in the SERS name.

Credit Risk Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. ORC 3309.15 and the Board's Statement of Investment Policy (adopted September 2015) direct that the funds of SERS will be invested following the prudent person standard. This fiduciary standard dictates that the Board consider the probable safety of investments, avoid speculative

Notes to the Basic Financial Statements June 30, 2021

investments, and invest as persons of prudence, discretion, and intelligence would manage their own affairs. The Board accomplishes this through a combination of internal and external investment professionals.

Concentration of Credit Risk Concentration of credit risk is the risk of loss attributed to the magnitude of a plan's investment in a single issuer. SERS does not hold investments representing 5% or more of plan investment portfolio in any one issuer.

Interest Rate Risk Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. SERS does not have a policy for managing interest rate risk.

At June 30, 2021, SERS held interest-only strips that had a total fair value of \$37,023,909. These securities are based on cash flows from interest payments on underlying mortgages. Therefore, they are sensitive to prepayments by mortgagees, which may result from a decline in interest rates. SERS also held principal-only strips that had a total fair value of \$1,065,415. These principal-only strips are sensitive to interest rate increases that may result in decreasing mortgage prepayments, thus increasing the average maturity of this investment.

Foreign Currency Risk Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. SERS' exposure to foreign currency risk derives from its positions in foreign currency and foreign currency-denominated investments.

| FAIR VALUE SUBJECT TO COUNTERPARTY CREDIT RISK | | |
|--|---------------------------|------------------------------|
| | S&P Credit Quality Rating | Fair Value (\$ in thousands) |
| Foreign Fixed Derivatives | A | (42) |
| | A- | 27 |
| | AA- | 2,302 |
| | BBB+ | 78 |
| | BBB | (1) |
| Total | | 2,364 |
| US Fixed Derivatives | A | (3) |
| | BBB+ | (22) |
| Total | | (25) |
| Total | | \$ 2,339 |

*Futures and Options contracts are transacted via clearinghouse and are not subject to counterparty risk.

| FAIR VALUE SUBJECT TO INTEREST RATE RISK | | |
|--|------------------------------|-------------------------------------|
| Investment | Fair Value (\$ in thousands) | Option Adjusted Duration (in years) |
| Bond Mutual Funds | \$ 918,298 | 0.08 |
| Certificates of Deposit | 2,535 | 2.46 |
| Foreign Obligations* | 369,151 | 5.82 |
| Mortgage and Asset Backed | 208,710 | 2.24 |
| Municipal Obligations | 26,934 | 7.63 |
| US Corporate Obligations | 639,101 | 7.28 |
| US Government & Agency Obligations | 1,017,821 | 6.20 |
| Total | \$ 3,182,550 | 4.36 |

*Excludes Pending FX

| FAIR VALUE SUBJECT TO ISSUER CREDIT RISK | | | | | | | | | | | | |
|---|-----------------|--------------------|------------------|------------------|------------------|-----------------|-----------------|--------------|------------|--------------|------------------|--------------------|
| Fair Value Based Upon S&P Credit Quality Rating (\$ in thousands) | | | | | | | | | | | | |
| | AAA | AA | A | BBB | BB | B | CCC | CC | C | D | Not Rated | Total |
| Bond Mutual Funds | \$ — | \$ 192,234 | \$ 726,064 | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ 918,298 |
| Certificates of Deposit | — | — | 741 | 1,795 | — | — | — | — | — | — | — | 2,536 |
| Foreign Obligations | 10,981 | 10,383 | 38,013 | 149,931 | 62,797 | 17,836 | 6,773 | 113 | — | 516 | 71,808 | 369,151 |
| Mortgage and Asset Backed | 65,263 | 35,340 | 13,603 | 17,511 | 1,609 | 3,026 | 1,431 | 878 | — | 275 | 69,773 | 208,709 |
| Municipal Obligations | — | 5,499 | 15,253 | 4,656 | — | — | — | — | — | — | 1,527 | 26,935 |
| US Corporate Obligations | 2,530 | 20,338 | 135,467 | 396,856 | 64,487 | 9,037 | 1,849 | — | — | — | 8,538 | 639,102 |
| US Government & Agency Obligations | — | 1,017,821 | — | — | — | — | — | — | — | — | — | 1,017,821 |
| Total | \$78,774 | \$1,281,615 | \$929,141 | \$570,749 | \$128,893 | \$29,899 | \$10,053 | \$991 | \$— | \$791 | \$151,646 | \$3,182,552 |

Notes to the Basic Financial Statements June 30, 2021

| FAIR VALUE SUBJECT TO FOREIGN CURRENCY RISK (\$ in thousands) | | | | | | |
|---|-----------|------------------------------------|----------------------------|---------------------|---------------------------|--|
| Currency | Currency | Foreign Common and Preferred Stock | Foreign Equity Derivatives | Foreign Obligations | Foreign Fixed Derivatives | |
| Argentinean Peso | 45 | — | — | 208 | — | |
| Australian Dollar | 483 | 52,721 | (42) | — | (13) | |
| Brazilian Real | 64 | 30,521 | — | 4,514 | 12 | |
| British Pound | 1,699 | 211,770 | (127) | 2,471 | — | |
| Bulgarian Lev | — | — | — | — | — | |
| Canadian Dollar | 142 | 74,805 | 45 | — | — | |
| Chilean Peso | — | 2,073 | — | — | — | |
| Chinese Yuan | 1,897 | 131,364 | — | 4,147 | — | |
| Colombian Peso | 58 | — | — | 2,907 | — | |
| Czech Koruna | — | — | — | — | — | |
| Danish Krone | 379 | 52,736 | — | — | — | |
| Dominican Republic Peso | — | — | — | — | — | |
| Egyptian Pound | — | — | — | 800 | — | |
| Euro | 718 | 404,839 | (515) | 3,487 | (112) | |
| Hong Kong Dollar | 950 | 175,723 | (26) | — | — | |
| Hungarian Forint | 2 | 3,067 | — | — | — | |
| Indian Rupee | 288 | 50,258 | — | 554 | — | |
| Indonesian Rupiah | — | 7,695 | — | 8,162 | — | |
| Israeli Shekel | 12 | 5,950 | — | — | — | |
| Japanese Yen | 3,899 | 427,974 | (145) | — | (5) | |
| Malaysian Ringgit | — | 2,672 | — | 718 | — | |
| Mexican Peso | 591 | 17,723 | — | 11,739 | 197 | |
| Netherlands Antilles Guilder | — | — | — | — | — | |
| New Zealand Dollar | — | — | — | — | — | |
| Norwegian Krone | 770 | 9,685 | — | — | — | |
| Peruvian New Sol | — | — | — | 865 | — | |
| Philippines Peso | — | 500 | — | — | — | |
| Polish Zloty | 10 | 2,613 | — | 1,705 | (17) | |
| Romanian Leu | — | — | — | 1,116 | — | |
| Russian Ruble | 1,083 | 103,147 | — | 8,017 | — | |
| Saudi Riyal | — | 3,958 | — | — | — | |
| Singapore Dollar | 798 | 18,875 | — | — | — | |
| South African Rand | — | 19,481 | — | 3,869 | (3) | |
| South Korean Won | 56 | 217,858 | — | — | 5 | |
| Swedish Krona | 49 | 33,236 | (24) | — | — | |
| Swiss Franc | 12 | 163,873 | — | — | — | |
| Taiwan Dollar | 105 | 113,406 | — | — | — | |
| Thailand Baht | 7 | 8,246 | — | 1,445 | — | |
| Turkish Lira | — | 10,167 | — | 701 | — | |
| United Arab Emirates Dirham | — | 354 | — | (841) | — | |
| Uruguayan Peso | — | — | — | 442 | — | |
| Vietnam Dong | — | 733 | — | — | — | |
| | \$ 14,117 | \$ 2,358,023 | \$ (834) | \$ 57,026 | \$ 64 | |

Notes to the Basic Financial Statements June 30, 2021

Derivative Instruments Derivative instruments are investment instruments whose cash flows or fair values are derived from the value of some other asset or index. SERS uses a variety of derivative instruments primarily to maximize yields and offset volatility due to interest rate and currency fluctuations. SERS is exposed to various types of credit, market, and legal risks related to these investments. The investment staff continually monitors these types of investments.

Foreign exchange forward currency contracts are legal agreements between two parties to purchase and sell a foreign currency, for a price specified at the contract date, with delivery and settlement in the future. SERS enters into these contracts to hedge the foreign currency movements of assets held in the underlying funds. The contracts do not subject SERS to risk due to exchange rate movements since gains and losses on the contracts offset gains and losses on the transactions being hedged. SERS could be at risk for replacing these contracts at current market rates, should the counterparty default. SERS seeks to control this risk through contracting only with counterparties that meet certain credit guidelines. A futures contract is a contract to buy or sell units of an index or financial instrument on a specified future date at a price agreed upon when the contract is originated. SERS uses equity and fixed income futures during the fiscal year to rebalance its asset allocation and overlay its cash exposure in the US and Non-US equity portfolios. Only the most liquid futures are used by SERS to overlay the temporary and transactional cash held, and to rebalance asset allocations between asset classes.

Options give buyers the right, but not the obligation, to buy or sell an asset at a predetermined strike price over a specified period. The option premium is usually a small percentage of the underlying asset's value. When writing an option, SERS receives a premium up front and bears the risk of an unfavorable change in the price of the underlying asset during the option's life.

Swaps represent an agreement between two or more parties to exchange a sequence of cash flows during a predetermined timeframe. SERS utilizes swaps to manage interest rate fluctuations, default by a borrower, and to gain market exposure without having to actually own the asset.

FAIR VALUE OF FORWARD CURRENCY AND HEDGED CONTRACTS

As of June 30, 2021 and 2020 (\$ in thousands)

| | FY2021 | FY2020 |
|----------------------------|--------------|--------------|
| Forward Currency Purchases | \$ 1,899,223 | \$ 1,172,967 |
| Forward Currency Sales | 1,898,383 | 1,171,269 |
| Unrealized gain (loss) | (841) | (1,698) |

SWAP CONTRACTS

As of June 30, 2021 and 2020 (\$ in thousands)

| Type | FY2021 | | FY2020 | |
|----------------|----------------|------------|----------------|------------|
| | Notional Value | Fair Value | Notional Value | Fair Value |
| Credit Default | \$ 23,508 | \$ 61 | \$ 37,772 | \$ 131 |
| Interest Rate | 143,912 | 928 | 388,501 | (3,679) |
| Zero Coupon | 20,940 | 1,351 | 16,496 | (16) |

FUTURES CONTRACTS

As of June 30, 2021 and 2020 (\$ in thousands)

| Type | FY2021 | | | FY2020 | | |
|--|---------------------|-------------------|----------------|---------------------|------------------|------------------|
| | Number of Contracts | Notional Value | Contract Value | Number of Contracts | Notional Value | Contract Value |
| Equity Features | | | | | | |
| International Equity Index Futures - Long | 750 | \$ 77,388 | \$ (834) | 358 | \$ 28,651 | \$ (223) |
| US Commodity Futures - Long | 19 | 2,858 | (56) | — | — | — |
| US Commodity Futures - Short | (8) | (588) | 1 | — | — | — |
| U.S. Stock Index Futures - Long | 817 | 91,778 | 197 | 4,768 | 563,676 | 14,361 |
| Fixed Income / Cash Equivalent Futures | | | | | | |
| Cash Equivalent (Eurodollar) Futures - Long | 238 | 58,831 | (28) | 216 | 46,303 | 803 |
| Cash Equivalent (Eurodollar) Futures - Short | (682) | (170,208) | 3 | (378) | (94,312) | (402) |
| International Fixed Income Index Futures - Long | 59 | 7,989 | 8 | 21 | 3,956 | 73 |
| International Fixed Income Index Futures - Short | (83) | (22,909) | (125) | (193) | (47,077) | (346) |
| US Treasury Futures Long | 1,893 | 272,061 | 2,155 | 738 | 122,430 | 666 |
| US Treasury Futures Short | (1,081) | (154,863) | (1,231) | (3,213) | (534,012) | (1,504) |
| Total Futures (Net) | 1,922 | \$ 162,337 | \$ 90 | 2,317 | \$ 89,615 | \$ 13,428 |

OPTIONS CONTRACTS

| As of June 30, 2021 and 2020 (\$ in thousands) | FY2021 | | | FY2020 | | |
|--|---------------------|----------------|------------|---------------------|----------------|------------|
| | Number of Contracts | Notional Value | Fair Value | Number of Contracts | Notional Value | Fair Value |
| Fixed Income Options | | | | | | |
| Fixed Income Call Options on Foreign Currency - Purchased | 3,224,981 | \$ 3,225 | \$ 7 | 7,998,655 | \$ 7,999 | \$ 30 |
| Fixed Income Call Options on Foreign Currency - Written | — | — | — | (3,250,000) | (3,250) | (351) |
| Fixed Income Call Options on Futures (non-dollar) - Purchased | 578 | — | 147 | — | — | — |
| Fixed Income Call Options on Futures (non-dollar) - Written | (358) | — | (200) | — | — | — |
| Fixed Income Put Options on Futures (non-dollar) - Purchased | 904 | — | 77 | — | — | — |
| Fixed Income Put Options on Futures (non-dollar) - Written | (681) | — | (112) | — | — | — |
| Fixed Income Call Options on US Futures - Written | — | — | — | (42) | — | (45) |
| Fixed Income Call Options on US Interest Rate Swap - Purchased | 17,050,000 | 17,050 | 85 | — | — | — |
| Fixed Income Call Options on US Interest Rate Swap - Written | — | — | — | (22,300,000) | (22,300) | (153) |
| Fixed Income Put Options on US Futures - Written | (29,890,000) | (29,890) | (114) | (42) | — | (19) |
| Fixed Income Put Options on US Interest Rate Swap - Purchased | 5,970,000 | 5,970 | 71 | 3,390,000 | 3,390 | — |
| Fixed Income Put Options on US Interest Rate Swap - Written | (11,940,000) | (11,940) | (63) | (36,730,000) | (36,730) | (76) |

Securities Lending SERS participates in a securities lending program that directly holds equity and fixed income investments using Goldman Sachs Agency Lending (GSAL) as a third-party lending agent. Securities are loaned to independent broker/dealers in exchange for cash collateral equal to approximately 102% of the fair value of domestic securities on loan and 105% of the fair value of international securities on loan, with a simultaneous agreement to return the collateral for the same securities in the future. At the same time, SERS records a liability for the collateral held in the securities lending program. The total net gain on the securities lending program was \$731,662 during FY2021.

At June 30, 2021, SERS had no credit risk exposure on the securities lending collateral because the collateral exceeded the value of the securities loaned.

Under the terms of the lending agreement, SERS is fully indemnified against losses that might occur in the program due to the failure of a broker to return a security that was borrowed where the collateral is inadequate to replace the security. SERS is also indemnified should the borrower fail to pay distributions of earnings on the securities lent.

Securities on loan can be recalled on demand by SERS or returned by the borrower at any time. There is no matching of the securities lent with the invested cash collateral. The lending agent mitigates risk by focusing on intrinsic value lending, and BNY Mellon reinvests the cash collateral in accordance with contractual investment guidelines that are designed to ensure the safety of principal and obtain a moderate rate of return. Earnings generated from the collateral investments, less the amount of rebates paid to the dealers, result in the gross earnings from lending activities, which is then split on an 85%/15% basis with GSAL. SERS is at risk to contribute additional funds should the earnings from the invested SERS collateral not be sufficient to pay the negotiated dealer rebate. At June 30, 2021, the GSAL collateral portfolio had an average weighted maturity of one day. SERS receives pro-rated income from participation in the securities lending program of a commingled investment. SERS has no direct responsibility for this program and the collateral held by this securities lending program is not held in SERS' name. Total net direct proceeds from the commingled investment during FY2021 were \$77,453.

SECURITIES LENDING

| As of June 30, 2021 (\$ in thousands) | Fair Value of Securities on Loan | Collateral Value (Cash) |
|--|-------------------------------------|----------------------------|
| Foreign Stocks | \$ 9,287 | \$ 9,857 |
| US Common & Preferred Stock | 61,536 | 63,026 |
| US Corporate Obligations | 1,604 | 1,661 |
| | \$ 72,427 | \$ 74,544 |

Notes to the Basic Financial Statements June 30, 2021

Commitments As of June 30, 2021, unfunded commitments related to the opportunistic, private equity, and real estate investments totaled \$3.3 billion.

7. Capital Assets (Non-Investment Assets)

| CAPITAL ASSETS ACTIVITY for the year ended June 30, 2021 | | | | | |
|---|---------------------|---|----------------------------------|--------------------------------------|-----------------------------|
| Cost: | Land | Office Building & Improvements | Furniture & Equipment | Internally-Developed Software | Total Capital Assets |
| Balances, June 30, 2020 | \$ 3,315,670 | \$ 54,097,623 | \$ 7,920,426 | \$ 34,979,428 | \$ 100,313,147 |
| Additions | — | 210,064 | 386,230 | — | 596,294 |
| Disposals | — | — | — | — | — |
| Balances, June 30, 2021 | 3,315,670 | 54,307,687 | 8,306,656 | 34,979,428 | 100,909,441 |
| Accumulated Depreciation: | | | | | |
| Balances, June 30, 2020 | — | 24,639,594 | 7,039,678 | 6,356,993 | 38,036,265 |
| Additions | — | 1,408,726 | 428,386 | 2,057,613 | 3,894,725 |
| Disposals | — | — | — | — | — |
| Balances, June 30, 2021 | — | 26,048,320 | 7,468,064 | 8,414,606 | 41,930,990 |
| Net Capital Assets, June 30, 2021 | \$ 3,315,670 | \$ 28,259,367 | \$ 838,592 | \$ 26,564,822 | \$ 58,978,451 |

8. Net Pension Liability and Actuarial Information – Defined Benefit Plan

The components of the net pension liability as of June 30, 2021:

| Plan Funds | |
|--|-------------------|
| Total Pension Liability (a) | \$ 21,529,757,004 |
| Fiduciary Net Position (b) | \$ 17,840,046,988 |
| Net Pension Liability (Surplus) (a) - (b) | \$ 3,689,710,016 |
| Fiduciary Net Position as a Percent of Total Pension Liability (b) / (a) | 82.86 % |

The total pension liability is determined by SERS' actuaries in accordance with GASB Statement No. 67, as part of their annual actuarial valuation for each defined benefit retirement plan. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts (e.g., salaries, credited service) and assumptions about the probability of occurrence of events far into the future (e.g., mortality, disabilities, retirements, employment terminations). Actuarially determined amounts are subject to continual review and potential modifications, as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employers and plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations. Future benefits for all current plan members were projected through 2132.

Actuarial calculations reflect a long-term perspective. For a newly hired employee, actuarial calculations will take into account the employee's entire career with the employer and also take into consideration the benefits, if any, paid to the employee after termination of employment until the death of the employee and any applicable contingent annuitant. In many cases, actuarial calculations reflect several decades of service with the employer and the payment of benefits after termination.

The long-term return expectation for the Pension Plan Investments has been determined by using a building-block approach and assumes a time horizon, as defined in the Statement of Investment Policy. A forecasted rate of inflation serves as the baseline for the return expectation. Various real return premiums over the baseline inflation rate have been established for each asset class. The long-term

Notes to the Basic Financial Statements June 30, 2021

expected nominal rate of return has been determined by calculating an arithmetic weighted average of the expected real return premiums for each asset class, adding the projected inflation rate, and adding the expected return from rebalancing uncorrelated asset classes.

The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

| Asset Class | Target Allocation | Long-Term Expected Real Rate of Return |
|------------------------------|-------------------|--|
| Cash | 2.00% | (0.33)% |
| US Equity | 24.75 | 5.72 |
| Non-US Equity Developed | 13.50 | 6.55 |
| Non-US Equity Emerging | 6.75 | 8.54 |
| Fixed Income /Global Bonds | 19.00 | 1.14 |
| Private Equity | 11.00 | 10.03 |
| Real Estate/ Real Assets | 16.00 | 5.41 |
| Multi-Asset Strategies | 4.00 | 3.47 |
| Private Debt/ Private Credit | 3.00 | 5.28 |

Total pension liability was calculated using the discount rate of 7.00%. The discount rate determination did not use a municipal bond rate. The projection of cash flows used to determine the discount rate assumed that employers would contribute the actuarially determined contribution rate of projected compensation over the remaining 23-year amortization period of the unfunded actuarial accrued liability. The actuarially determined contribution rate of FY2021 was 14%. Projected inflows from investment earnings were calculated using the long-term assumed investment rate of return (7.00%). Based on those assumptions, the plan's fiduciary net position was projected to be available to make all future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefits to determine the total pension liability. The annual money-weighted rate of return, calculated as the internal rate of return on pension plan investments, for FY2021 was 28.18%.

Key Methods and Assumptions Used in Valuation of Total Pension Liability

| | |
|--|---|
| Valuation Date | June 30, 2021 |
| Actuarial Cost Method | Entry Age Normal (Level Percent of Payroll) |
| Actuarial Assumptions: | |
| Experience Study Date | Period of 5 years ended June 30, 2020 |
| Investment Rate of Return | 7.00%, net of System expenses |
| Cost of Living Increases (COLA) or "Ad Hoc" COLA | 2.00%, on and after April 1, 2018, COLA's for future retirees will be delayed for three years following commencement. |
| Future Salary Increases, Including Inflation | 3.25% - 13.58% |
| Inflation | 2.40% |
| Mortality Assumptions | SERVICE RETIREMENT: PUB-2010 General Employee Amount Weighted Below Median Healthy Retiree mortality table projected to 2017 with ages set forward 1 year and adjusted 94.20% for males and set forward 2 years and adjusted 81.35% for females. Future improvement in mortality rates is reflected by applying the MP-2020 projection scale generationally. DISABLED RETIREMENT: PUB-2010 General Disabled Retiree mortality table projected to 2017 with ages set forward 5 years and adjusted 103.3% for males and set forward 3 years and adjusted 106.8% for females. Future improvement in mortality rates is reflected by applying the MP-2020 projection scale generationally. CONTINGENT SURVIVOR: PUB-2010 General Amount Weighted Below Median Contingent Survivor mortality table projected to 2017 with ages set forward 1 year and adjusted 105.5% for males and adjusted 122.5% for females. Future improvement in mortality rates is reflected by applying the MP-2020 projection scale generationally. |

Net pension liability is sensitive to changes in the discount rate, and to illustrate the potential impact the table presents the net pension liability calculated using the discount rate of 7.00%, as well as what the plan's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%), or one percentage point higher (8.00%) than the current rate.

Net Pension Liability Sensitivity to Changes in the Discount Rate

| | | |
|-------------------------------|----|---------------|
| 1% Decrease (6.00%) | \$ | 6,138,771,258 |
| Current Discount Rate (7.00%) | \$ | 3,689,710,016 |
| 1% Increase (8.00%) | \$ | 1,624,309,612 |

9. Pension Plans for Employees of SERS

All SERS Ohio employees are required to participate in a contributory retirement plan administered by Ohio Public Employees Retirement System (OPERS). OPERS is a cost-sharing, multiple-employer public employee retirement system that administers three pension plans that include a defined benefit plan, a defined contribution plan, and a combined plan. Participation in these plans is a choice members make at the time their employment commences.

In 2012, the Ohio Legislature passed Senate Bill 343 to improve the financial condition of OPERS. In the legislation, members were categorized into three groups with varying provisions of the law applicable to each group. Retirement benefits are specific to each group and members must meet the eligibility requirements based on their age and years of service, within the group. The key components to OPERS' pension plan changes are:

- Age and service requirements for retirement increased.
- Final average salary calculation increased to five years from three years.
- Calculation used to determine the benefit amount for service retirement was modified.
- COLA is based on the annual percentage change in the Consumer Price Index with a 3% cap.
- Calculation used for early retirement benefit is determined by OPERS' actuary.

Details about OPERS' plan changes and when they become effective can be found on its website at www.opers.org.

The member and employer contribution rates are 10.0% and 14.0% of covered payroll, respectively. The required employer contributions for the current year and the two preceding years are shown in the table below.

SERS Required Employer Contributions to OPERS

| Year Ended June 30 | Annual Required Contribution | Percent Contributed |
|--------------------|------------------------------|---------------------|
| 2019 | \$2,157,149 | 100% |
| 2020 | \$2,139,891 | 100% |
| 2021 | \$2,137,785 | 100% |

GASB Statement No. 68, Accounting and Financial Reporting for Pensions, requires SERS to record a net pension liability based on its proportionate share of OPERS' total net pension liability. Likewise, SERS' proportionate share of OPERS' deferred outflows and deferred inflows of resources related to pensions and pension expense are recorded in the Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position for the fiscal year ending June 30, 2021.

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of OPERS and additions to/deductions from OPERS' fiduciary net position have been determined on the same basis as they are reported by OPERS. For this purpose, benefits and refunds are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

OPERS also provides post-employment health care coverage which is considered an OPEB as described in GASB Statement No. 75. In addition to the legislation that made changes to the pension plan, the OPERS Board approved changes to the retiree health care plan with phased-in implementation dates over the next several years. OPERS has the discretion to direct a portion of employer contributions to

fund retiree health care. The Revised Code provides statutory authority for employer contributions. The employer rate allocated to post-employment health care in the defined benefit plan and combined plan was zero in calendar 2020. The portion of the employer rate allocated to post-employment health care in the defined contribution plan was 4% in calendar 2020.

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the OPEB fiduciary net position of OPERS and additions to/deductions from the OPEB fiduciary net position of OPERS have been determined on the same basis as they are reported by OPERS. For this purpose, health care benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Historical trend information showing the progress of OPERS in accumulating sufficient assets to pay pension and OPEB benefits when due is presented in the OPERS *Annual Comprehensive Financial Report*. OPERS issues a publicly available financial report for the plans. The report may be found on its website at www.opers.org.

10. Compensated Absences

As of June 30, 2021, and 2020, \$2,919,154 and \$2,652,497, respectively, were accrued for the unused vacation leave of all employees and the unused sick leave of SERS' employees who are eligible to retire within five years with the following limitations. Employees who retire or become disabled after five years of service are entitled to receive payment for all unused sick time up to 960 hours. If an employee accumulated unused sick time in excess of 960 hours as of June 30, 2018, then compensation of 50% of the excess hours of their unused sick time balance as of June 30, 2018, will also be paid. Unused sick leave pay is forfeited upon resignation or termination. Employees who retire or separate employment from SERS are entitled to full compensation for all earned unused vacation. If an employee dies after five years of service, the beneficiaries are entitled to receive the same unused vacation and sick leave benefits as an employee who retires.

11. Self-insured Health Care for Employees of SERS

SERS is self-insured for employee benefits for dental, medical, and hospitalization. A third-party administrator manages the program. SERS holds a stop-loss policy of \$250,000 per employee per year. SERS also accrues incurred claims from the current fiscal year that have not yet been billed in the current fiscal year. The amount accrued in FY2020 was \$200,000, and the amount accrued in FY2021 was \$365,000.

12. Federal Income Tax Status

The SERS Pension Trust Fund is a qualified plan under Internal Revenue Code (IRC) Section 401(a) and is therefore exempt from federal income taxes. The Medicare B Fund is established pursuant to IRC Section 401(h). The Death Benefit Fund is an insurance fund and is in compliance with IRC Section 101(a). The QEBA Fund is a qualified entity, created in accordance with IRC Section 415(b). The Health Care Fund is structured to meet the requirements of IRC Section 105(e).

13. Risk Management

SERS is exposed to various risks of loss, including theft or destruction of assets, general liability, employee injuries, and legal challenges to fiduciary decisions. SERS self-insures some risks through deductibles and retention, and purchases insurance for the remainder. For the past seven years, there has been no reduction in coverage, and no claims have exceeded purchased limits.

14. Leases

SERS adopted early implementation of GASB 87, *Leases* in FY2020. During the current fiscal year, SERS was the lessor of eight third party lease contracts noted in the table below. The lease contract for ERA expired on January 1, 2021 while The Doctors contract terminated and was no longer considered a long term contract as of June 30, 2021. SERS recognized \$690,175 in lease revenue and \$102,680 in interest revenue during the current fiscal year related to lease payments. As of June 30, 2021, SERS' receivable for lease payments was \$3,659,534. Also, SERS has a deferred inflow of resources associated with these leases that will be recognized as revenue over the lease term. As of June 30, 2021, the balance of the deferred inflow of resources was \$3,327,432.

| Leases | | | | | | | |
|----------------------------|------------------|---------------------|----------------------------------|--------------------|-----------------------|-----------------------------------|--|
| Tenant Name | Lease Start Date | Lease Term (months) | Monthly Receivable at 06/30/2021 | FYTD Lease Revenue | FYTD Interest Revenue | Lease Receivable as of 06/30/2021 | Deferred Inflow balance as of 06/30/2021 |
| ERA | 11/01/2015 | 63 | \$ — | \$ 32,544 | \$ 265 | \$ — | \$ — |
| Law Offices of Craig Scott | 10/01/2014 | 88 | 4,353 | 50,369 | 1,408 | 30,226 | 25,054 |
| Plunkett | 05/01/2013 | 112 | 7,464 | 85,914 | 3,651 | 102,916 | 90,896 |
| Poling | 03/01/2017 | 180 | 25,325 | 226,445 | 77,452 | 3,051,167 | 2,785,285 |
| Ribway | 12/01/2016 | 63 | 7,379 | 85,982 | 2,568 | 58,497 | 51,318 |
| Stratos | 02/01/2018 | 60 | 6,561 | 74,070 | 3,994 | 123,265 | 115,456 |
| The Doctors | 10/01/2018 | 63 | 6,026 | 66,459 | 5,269 | — | — |
| ZSG | 11/01/2019 | 65 | 6,520 | 68,392 | 8,073 | 293,463 | 259,423 |
| Totals | | | \$ 63,628 | \$ 690,175 | \$ 102,680 | \$ 3,659,534 | \$ 3,327,432 |

15. Contingent Liabilities

Deutsche Bank Trust Company Americas, et al. v. Huntington National Bank, et. al. - The Litigation Trustee and certain former creditors for the Tribune Company brought intentional and constructive fraudulent conveyance claims against SERS and thousands of other former Tribune shareholders for amounts paid to them in connection with Tribune's leveraged buyout in 2007. All of the claims pending against SERS were dismissed, but creditors have the opportunity to seek review by the U.S. Supreme Court of the Second Circuit's dismissal of their fraudulent conveyance claims. While the final outcome of this litigation cannot be determined at this time, management is of the opinion that the liability, if any, for these legal actions will not have a material adverse effect on SERS' financial position.

State of Ohio ex rel. Brian G. Adams v. School Employees Retirement System of Ohio Board – On October 16, 2019, Brian Adams filed a Verified Complaint for Writ of Mandamus against the Retirement Board in the Franklin County Court of Common Pleas. The complaint concerns a disagreement between the parties as to Mr. Adams' effective date of retirement and the calculation of his "compensation" for purposes of SERS. The complaint seeks the issuance of a writ ordering SERS to recognize April 1, 2019, as Mr. Adams' effective date of retirement and to recognize the compensation Mr. Adams received from Ohio Community School Consultants as his compensation for SERS purposes, or alternatively to deduct all the deductions claimed on Schedule C from his compensation. SERS filed its answer on November 14, 2019. Both parties have filed motions for summary judgment with the Court.

Kimberly Dawn Clifford v. School Employees Retirement System and Board of Education of Loveland School District - On April 5, 2021, Kimberly Clifford filed a complaint in the Franklin County Court of Common Pleas against SERS and the Board of Education for Loveland School District. The Complaint alleges that in September 2020 Loveland notified her that it had mistakenly enrolled her in SERS rather than STRS when she was hired in 2001 and that SERS is required to refund all unauthorized contributions. In addition to various claims against Loveland, the complaint seeks a declaratory judgment from the court that SERS must include all growth on investment of income from the contributions it has received. Loveland filed a cross-claim against SERS. SERS filed a motion to dismiss the complaint.

16. Net Other Postemployment Benefits (OPEB) Liability and Actuarial Information - Defined Benefit Plan

Plan Administration SERS administers School Employees Retirement System of Ohio Health Care Plan – a cost-sharing, multiple-employer, defined benefit OPEB plan that provides various levels of health care to retired and disabled members, surviving beneficiaries,

Notes to the Basic Financial Statements June 30, 2021

and eligible dependents of non-teaching personnel of Ohio schools, the University of Akron, 10 community colleges, and 4 technical colleges. The Board administers the program in accordance with Chapter 3309 of the Ohio Revised Code.

Plan Membership At June 30, 2021, SERS' Health Care Plan's membership consisted of the following:

| Plan Membership | |
|---|----------------|
| Currently Receiving Benefits: | |
| Retirees, or Their Beneficiaries | 35,598 |
| Inactive Members Entitled to But Not Yet Receiving Benefits | 5,972 |
| Active Members | 146,646 |
| Total | 188,216 |

Benefits Provided SERS' Health Care program provides health care benefits to eligible individuals receiving retirement, disability, and survivor benefits, and to their eligible dependents. Members who retire after June 1, 1986 need 10 years of service credit, exclusive of most types of purchased credit, to qualify to participate in SERS' health care coverage. The following types of credit purchased after January 29, 1981 do not count toward health care coverage eligibility: military, federal, out-of-state, municipal, private school, exempted, and early retirement incentive credit. In addition to age and service retirees, disability benefit recipients and beneficiaries who are receiving monthly benefits due to the death of a member or retiree are eligible for SERS' health care coverage. Most retirees and dependents choosing SERS' health care coverage are over the age of 65 and, therefore, enrolled in a fully insured Medicare Advantage plan; however, SERS maintains a traditional, self-insured preferred provider organization for its non-Medicare retiree population. For both groups, SERS offers a self-insured prescription drug program. Health care is a benefit that is permitted, not mandated, by statute.

Contributions The Health Care program is financed through a combination of employer contributions, recipient premiums, investment returns, and any funds received on behalf of SERS' participation in Medicare programs. The System's goal is to maintain a health care reserve account with a 20-year solvency period in order to ensure that fluctuations in the cost of health care do not cause an interruption in the program. However, during any period in which the 20-year solvency period is not achieved, the System shall manage the Health Care Fund on a pay-as-you-go basis.

Investment Policy The Health Care Fund follows the same investment policy as the Pension Plan, as defined in the Statement of Investment Policy.

Discount Rate (SEIR) The discount rate used to measure the total OPEB liability at June 30, 2021, was 2.27%. The discount rate used to measure total OPEB liability prior to June 30, 2021, was 2.63%. The projection of cash flows used to determine the discount rate assumed that contributions will be made from members and the System at the contribution rate of 1.50% of projected covered payroll each year, which includes a 1.50% payroll surcharge and no contributions from the basic benefits plan. Based on these assumptions, the OPEB plan's fiduciary net position was projected to become insufficient to make all projected future benefit payments of current System members by SERS actuaries. The Municipal Bond Index Rate was used in the determination of the SEIR for both the June 30, 2020 and the June 30, 2021 total OPEB liability. The Municipal Bond Index rate is the single rate that will generate a present value of benefit payments equal to the sum of the present value determined by the long-term expected rate of return, and the present value determined by discounting those benefits after the date of depletion. The Municipal Bond Index Rate was 1.92% at June 30, 2021 and 2.45% at June 30, 2020.

Rate of Return The long-term expected rate of return is reviewed as part of the regular experience studies prepared every five years for SERS. The most recent five-year experience study was performed for the period covering fiscal years 2016 through 2020, and was adopted by the Board on April 15, 2021. Several factors are considered in evaluating the long-term rate of return assumption including long-term historical data, estimates inherent in current market data, and a long-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) were developed by the investment consultant for each major asset class. These ranges were combined to produce the long-term expected rate of return, 7.00%, by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumptions developed by the investment consultant are intended for use over a 10-year horizon and may not be useful in setting the long-term rate of return for funding pension plans which covers a longer time frame. The assumption is intended to be a long-term assumption and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

Periods of Projected Benefit Payments The projection of future benefit payments for all current plan members was until benefit payments ran out.

Notes to the Basic Financial Statements June 30, 2021

Assumed Asset Allocation The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized as follows:

| Asset Class | Target Allocation | Long-Term Expected Real Rate of Return |
|------------------------------|-------------------|--|
| Cash | 2.00 % | (0.33)% |
| US Equity | 24.75 | 5.72 |
| Non-US Equity Developed | 13.50 | 6.55 |
| Non-US Equity Emerging | 6.75 | 8.54 |
| Fixed Income/ Global Bonds | 19.00 | 1.14 |
| Private Equity | 11.00 | 10.03 |
| Real Estate/ Real Assets | 16.00 | 5.41 |
| Multi-Asset Strategies | 4.00 | 3.47 |
| Private Debt/ Private Credit | 3.00 | 5.28 |

Net OPEB Liability of SERS The components of the net OPEB liability of SERS at June 30, 2021, were as follows:

| Plan Funds | |
|--|-------------------------|
| Total OPEB Liability (a) | \$ 2,492,912,153 |
| Plan Fiduciary Net Position (b) | 600,330,188 |
| SERS' Net OPEB Liability (a) - (b) | <u>\$ 1,892,581,965</u> |
| Plan Fiduciary Net Position as a Percent of Total OPEB Liability (b) / (a) | 24.08 % |

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Health Care Cost Trend Rate The following table presents the net OPEB liability of SERS, what SERS' net OPEB liability would be if it were calculated using a discount rate that is 1% lower (1.63%) and higher (3.63%) than the current discount rate (2.63%).

| Net OPEB Liability | | |
|------------------------|--------------------------|------------------------|
| 1% Decrease (1.27%) | Discount Rate (2.27%) | 1% Increase (3.27%) |
| \$2,345,138,104 | \$1,892,581,965 | \$1,531,047,864 |

The following table presents the OPEB liability of SERS, what SERS' net OPEB liability would be based on health care cost trend rates that are 1% lower (5.75% decreasing to 3.40%) and 1% higher (7.75% decreasing to 5.40%) than the current rate.

| Net OPEB Liability | | |
|--|---|--|
| 1% Decrease (5.75% decreasing to 3.40%) | Health Care Cost Trend Rates (6.75% decreasing to 4.40%) | 1% Increase (7.75% decreasing to 5.40%) |
| \$1,457,133,024 | \$1,892,581,965 | \$2,474,208,058 |

Actuarial Assumptions The total OPEB liability was determined by an actuarial valuation as of June 30, 2021. The actuarial assumptions used in the valuation were based on results from the most recent actuarial experience study, which covered the five-year period ending June 30, 2020. The experience study report was dated April 2021.

The total OPEB liability used the following assumptions and other inputs:

Key Methods and Assumptions Used in Valuation of Total OPEB Liability

| | |
|---|-----------------|
| Long-term Rate of Return, Net of System Expenses, Including Price Inflation | 7.00% |
| Price Inflation | 2.40% |
| Wage Increases, Including Price Inflation | 3.25% - 13.58% |
| Municipal Bond Index Rate | |
| Prior Measurement Date | 2.45 % |
| Measurement Date | 1.92 % |
| Year FNP is Projected to be Depleted | 2042 |
| Single Equivalent Interest Rate, Net of Plan Investment Expense, Including Price Inflation | |
| Prior Measurement Date | 2.63 % |
| Measurement Date | 2.27 % |
| Medical Trend Assumption | |
| Pre-Medicare | 6.750% - 4.400% |
| Medicare | 5.125% - 4.400% |
| Base Mortality | |
| Healthy Retirees - PUB-2010 General Employee Amount Weighted Below Median Healthy Retiree mortality table projected to 2017 with ages set forward 1 year and adjusted 94.20% for males and set forward 2 years and adjusted 81.35% for females. | |
| Disabled Retirees - PUB-2010 General Disabled Retiree mortality table projected to 2017 with ages set forward 5 years and adjusted 103.3% for males and set forward 3 years and adjusted 106.8% for females. | |
| Contingent Survivors - PUB-2010 General Amount Weighted Below Median Contingent Survivor mortality table projected to 2017 with ages set forward 1 year and adjusted 105.5% for males and adjusted 122.5% for females. | |
| Actives - PUB-2010 General Amount Weighted Below Median Employee mortality table. | |

17. Recently Issued Accounting Pronouncements

In June 2017, GASB issued Statement No. 87, *Leases*. The requirements for this Statement are effective for financial statements starting with the fiscal year that ends June 30, 2022. This Statement's objective is to improve accounting and financial reporting for leases by governments. The payments for short-term leasing of equipment should be recognized as outflows of resources based on the provisions of the lease contract. SERS early implemented GASB 87. The requirements of this Statement are reflected in this report.

In March 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. The requirements of this Statement are effective for reporting periods beginning after June 15, 2019. The objective of this Statement is to improve note disclosures in government financial statements related to debt, including direct borrowings and direct placements. Requirements include that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. Management has reviewed this Statement and determined SERS is not impacted.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. The requirements of this Statement take effect for financial statements starting with the fiscal year that ends December 31, 2021. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which

Notes to the Basic Financial Statements June 30, 2021

the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. Management has reviewed this Statement and determined SERS is not impacted.

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests-An Amendment of GASB Statements No. 14 and No. 61*. The requirements for this Statement will take effect for financial statements starting with the fiscal year that ends after December 31, 2020. This Statement will improve financial reporting by providing users of financial statements with essential information related to presentation of majority equity interests in legally separate organizations that was previously reported inconsistently. In addition, requiring reporting of information about component units if the government acquires a 100% equity interest provides information about the cost of services to be provided by the component unit in relation to the consideration provided to acquire the component unit. It defines a majority equity interest, specifies that majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment, and establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. In FY2020, SERS implemented GASB Statement No. 90. SERS has two legally separate organizations, OSERS Holdings, LLC and OSERS Broad Street, LLC, which own and operate the building that SERS occupies. These legally separate organizations do not meet the definition of an investment under GASB Statement No. 72, *Fair Value Measurement and Application*, because the legally separate organizations are not held by SERS to primarily generate income or profit. SERS reports the majority equity interests of OSERS Holdings, LLC and OSERS Broad Street, LLC as a component unit measured using the equity method.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations*. The requirements of this Statement will take effect for financial statements starting with the fiscal year that ends December 31, 2022. The primary objectives of this Statement will improve financial reporting by eliminating the existing option for issuers to report conduit debt obligations as their own liabilities, thereby ending significant diversity in practice. The clarified definition will resolve stakeholders' uncertainty as to whether a given financing is, in fact, a conduit debt obligation. Requiring issuers to recognize liabilities associated with additional commitments extended by issuers and to recognize assets and deferred inflows of resources related to certain arrangements associated with conduit debt obligations also will eliminate diversity, thereby improving comparability in reporting by issuers. Revised disclosure requirements will provide financial statement users with better information regarding the commitments issuers extend and the likelihood that they will fulfill those commitments. That information will inform users of the potential impact of such commitments on the financial resources of issuers and help users assess issuers' roles in conduit debt obligations. Management has reviewed this Statement and determined SERS is not impacted at this time.

In January 2020, GASB issued Statement No. 92, *Omnibus 2020*. The requirements of this Statement will take effect for financial statements starting with the fiscal year that ends June 30, 2022. This Statement will enhance comparability in the application of accounting and financial reporting requirements and will improve the consistency of authoritative literature. More comparable reporting will improve the usefulness of information for users of state and local government financial statements.

This Statement addresses the following:

- The effective date of Statement No. 87.
- Reporting of intra-entity transfers of assets between a primary government employer and a component unit defined benefit pension plan or defined benefit other post-employment benefit (OPEB) plan.
- The applicability of Statement No. 73 as amended, and No 74 as amended, to reporting assets accumulated for post-employment benefits.
- The applicability of certain requirements of Statement No. 84 to post-employment benefit arrangements.
- Measurement of liabilities (and assets, if any) related to AROs in a government acquisition.
- Reporting by public entity risk pools for amounts that are recoverable from reinsurers or excess insurers.
- Reference to nonrecurring fair value measurements of assets or liabilities in authoritative literature.
- Terminology used to refer to derivative instruments.

Management has reviewed this Statement and determined that the applicable requirements pertaining to SERS are related to the effective date of Statement No. 87 and terminology used to refer to derivative instruments. Both of these requirements are reflected in this report.

In March 2020, GASB issued Statement No. 93, *Replacement of Interbank Offered Rates*. The requirements of this Statement, except for paragraphs 11b, 13, and 14 are effective for reporting periods beginning after June 15, 2021. The requirements in paragraph 11b are effective for reporting periods ending after December 31, 2021. The requirements in paragraphs 13 and 14 are effective for financial statements starting with the fiscal year that ends June 30, 2022. This Statement will enhance comparability in the application of accounting and financial reporting requirements and will improve the consistency of authoritative literature. More comparable reporting will improve

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the usefulness of information for users of state and local government financial statements. Some governments have entered into agreements in which variable payments made or received depend on an interbank offered rate (IBOR) - most notably, the London Interbank Offered Rate (LIBOR). As a result of global reference rate reform, LIBOR is expected to cease to exist in its current form at the end of 2021, prompting governments to amend or replace financial instruments for the purpose of replacing LIBOR with other reference rates, by either changing the reference rate or adding or changing fallback provisions related to the reference rate. The objective of this Statement is to address those and other accounting and financial reporting implications that result from the replacement of an IBOR. Management has reviewed this Statement and determined SERS is not impacted at this time.

In March 2020, GASB issued Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*. The requirements of this Statement will take effect for financial statements starting with the fiscal year that ends June 30, 2023. The requirements of this Statement will improve financial reporting by establishing the definitions of PPPs and APAs and providing uniform guidance on accounting and financial reporting for transactions that meet those definitions. This Statement will enhance the decision usefulness of a government's financial statements by requiring governments to report assets and liabilities related to PPPs consistently and disclose important information about PPP transactions. The required disclosures will allow users to understand the scale and important aspects of a government's PPPs and evaluate a government's future obligations and assets resulting from PPPs. Management has reviewed this Statement and determined SERS is not impacted.

In May 2020, GASB issued Statement No. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance*. The requirements of this Statement are effective immediately. The primary objective of this Statement is to provide temporary relief to governments and other stakeholders in light of the COVID-19 pandemic. That objective is accomplished by postponing the effective dates of certain provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018, and later. Earlier application of the provisions addressed in this Statement is encouraged and is permitted to the extent specified in each pronouncement as originally issued and SERS has elected to follow those guidelines.

In May 2020, GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements*. The requirements of this Statement will take effective for financial statements starting with the fiscal year that ends June 30, 2023. This Statement provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users. This Statement (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset - and intangible asset - and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA. To the extent relevant, the standards for SBITAs are based on the standards established in Statement No. 87, *Leases*, as amended. These requirements will improve financial reporting by establishing a definition for SBITAs and providing uniform guidance for accounting and financial reporting for transactions that meet that definition. The impact of the requirements of this Statement to SERS is still being determined by management.

In June 2020, GASB issued Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans - an Amendment of GASB Statements No. 14 and No. 84, and a Supersession of GASB Statement No. 32*. The requirements of this Statement will take effect for financial statements starting with the fiscal year that ends June 30, 2022. The primary objectives of this Statement are to (1) increase consistency and comparability related to the reporting of fiduciary component units in circumstances in which a potential component unit does not have a governing board and the primary government performs the duties that a governing board typically would perform; (2) mitigate costs associated with the reporting of certain defined contribution pension plans, defined contribution other post-employment benefit (OPEB) plans, and employee benefit plans other than pension plans or OPEB plans (other employee benefit plans) as fiduciary component units in fiduciary fund financial statements; and (3) enhance the relevance, consistency, and comparability of the accounting and financial reporting for Internal Revenue Code (IRC) Section 457 deferred compensation plans (Section 457 plans) that meet the definition of a pension plan and for benefits provided through those plans. Management has reviewed this Statement and determined SERS is not impacted.

In October 2021, GASB issued Statement No. 98, *The Annual Comprehensive Financial Report*. The requirements of this Statement are effective for fiscal years beginning after December 15, 2021. The statement updates the document name and acronym. SERS has early implemented this standard and it is reflected in this document.

Required Supplementary Pension Information

SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY⁽¹⁾

| | 2021 | 2020 | 2019 | 2018 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| Total pension liability | | | | |
| Service Cost | \$ 373,675,302 | \$ 369,976,273 | \$ 355,452,912 | \$ 368,167,321 |
| Interest | 1,525,995,298 | 1,488,777,887 | 1,449,726,066 | 1,420,093,605 |
| Benefit changes | — | — | — | (357,618,668) |
| Difference between expected and actual experience | (155,871,041) | 1,562,953 | 60,411,674 | 286,313,613 |
| Changes of assumptions | 126,558,803 | — | — | — |
| Benefit payments | (1,302,035,913) | (1,280,910,125) | (1,260,400,360) | (1,248,097,556) |
| Refunds of contributions | (72,374,764) | (72,849,117) | (75,639,810) | (59,575,036) |
| Net change in total pension liability | 495,947,685 | 506,557,871 | 529,550,482 | 409,283,279 |
| Total pension liability – beginning | 21,033,809,319 | 20,527,251,448 | 19,997,700,966 | 19,588,417,687 |
| Total pension liability – ending (a) | \$ 21,529,757,004 | \$ 21,033,809,319 | \$ 20,527,251,448 | \$ 19,997,700,966 |
| Plan fiduciary net position | | | | |
| Contributions – employer | \$ 483,851,685 | \$ 491,557,790 | \$ 464,683,489 | \$ 435,103,620 |
| Contributions – member | 346,781,820 | 352,343,063 | 345,212,684 | 324,842,074 |
| Net investment income | 3,976,995,866 | 413,108,397 | 831,584,377 | 1,242,021,081 |
| Benefit payments | (1,302,035,913) | (1,280,910,125) | (1,260,400,360) | (1,248,097,556) |
| Administrative expense | (12,770,334) | (28,002,623) | (31,880,024) | (26,993,893) |
| Refunds of contributions | (72,374,764) | (72,849,117) | (75,639,810) | (59,575,036) |
| Other | — | — | — | — |
| Net change in plan fiduciary net position | 3,420,448,360 | (124,752,615) | 273,560,356 | 667,300,290 |
| Plan fiduciary net position – beginning | 14,419,598,628 | 14,544,351,242 * | 14,270,515,748 | 13,603,215,458 * |
| Plan fiduciary net position – ending (b) | 17,840,046,988 | 14,419,598,627 | 14,544,076,104 * | 14,270,515,748 |
| Net pension liability – ending (a) – (b) | \$ 3,689,710,016 | \$ 6,614,210,692 | \$ 5,983,175,344 | \$ 5,727,185,218 |

⁽¹⁾The effort and cost to re-create financial statement information for the previous two years was not practical. Information was prepared prospectively from June 30, 2014 for GASB 67 purposes. Additional years will be added to the schedule as they become available.

*Beginning Fiduciary Net Position was restated in FY2015 due to the implementation of GASB 68, in FY2018 due to the implementation of GASB 75, and in FY2020 due to the implementation of GASB 87.

Required Supplementary Pension Information

| | 2017 | 2016 | 2015 | 2014 |
|----|-------------------|-------------------|-------------------|-------------------|
| \$ | 335,918,449 | \$ 344,059,634 | \$ 338,060,547 | \$ 332,975,336 |
| | 1,436,626,290 | 1,385,878,598 | 1,341,777,662 | 1,296,763,757 |
| | (998,484,758) | — | — | — |
| | 275,031,424 | 50,307,199 | 78,749,615 | 53,951,305 |
| | 0 | 668,216,579 | — | — |
| | (1,170,689,006) | (1,110,694,355) | (1,076,498,383) | (993,355,839) |
| | (60,692,833) | (70,340,495) | (60,635,651) | (55,668,466) |
| | (182,290,434) | 1,267,427,160 | 621,453,790 | 634,666,093 |
| | 19,770,708,121 | 18,503,280,961 | 17,881,827,171 | 17,247,161,078 |
| \$ | \$ 19,588,417,687 | \$ 19,770,708,121 | \$ 18,503,280,961 | \$ 17,881,827,171 |
| \$ | 467,796,738 | \$ 436,421,681 | \$ 395,804,105 | \$ 405,029,627 |
| | 336,627,658 | 314,325,716 | 303,866,076 | 295,690,550 |
| | 1,613,368,560 | 106,543,126 | 441,455,552 | 1,888,288,396 |
| | (1,170,689,006) | (1,110,694,355) | (1,076,498,383) | (993,355,839) |
| | (24,403,350) | (21,808,880) | (19,305,477) | (19,582,190) |
| | (60,692,833) | (70,340,495) | (60,635,651) | (55,668,466) |
| | — | 0 | 1,874,997 | — |
| | 1,162,007,767 | (345,553,207) | (13,438,781) | 1,520,402,078 |
| | 12,451,630,823 | 12,797,184,030 | 12,810,622,811 * | 11,300,482,029 |
| | 13,613,638,590 * | 12,451,630,823 | 12,797,184,030 | 12,820,884,107 * |
| \$ | \$ 5,974,779,097 | \$ 7,319,077,298 | \$ 5,706,096,931 | \$ 5,060,943,064 |

Required Supplementary Pension Information

SCHEDULE OF THE NET PENSION LIABILITY⁽¹⁾ (\$ in millions)

| | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total pension liability | \$ 21,530 | \$ 21,034 | \$ 20,527 | \$ 19,998 | \$ 19,588 | \$ 19,771 | \$ 18,503 | \$ 17,882 |
| Plan fiduciary net position | 17,840 | 14,420 | 14,544 | 14,271 | 13,614 | 12,452 | 12,797 | 12,821 |
| Net pension liability | \$ 3,690 | \$ 6,614 | \$ 5,983 | \$ 5,727 | \$ 5,974 | \$ 7,319 | \$ 5,706 | \$ 5,061 |
| Ratio of plan fiduciary net position to total pension liability | 82.86 % | 68.55 % | 70.85 % | 71.36 % | 69.50 % | 62.98 % | 69.16 % | 71.70 % |
| Covered payroll | \$ 3,449 | \$ 3,478 | \$ 3,463 | \$ 3,332 | \$ 3,303 | \$ 2,932 | \$ 2,845 | \$ 2,922 |
| Net pension liability as a percentage of covered payroll | 106.97 % | 190.20 % | 172.80 % | 171.86 % | 180.90 % | 249.61 % | 200.53 % | 173.18 % |

⁽¹⁾The effort and cost to re-create financial statement information for the previous two years was not practical. Information was prepared prospectively from June 30, 2014 for GASB 67 purposes. Additional years will be added to the schedule as they become available.

See accompanying notes to the required supplementary information.

SCHEDULE OF EMPLOYER CONTRIBUTIONS (\$ in millions)

| | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Actuarially determined employer contribution | \$ 483.9 | \$ 491.6 | \$ 464.7 | \$ 435.1 | \$ 467.8 | \$ 436.4 | \$ 395.8 | \$ 405.0 | \$ 402.2 | \$ 399.7 |
| Actual employer contributions | 483.9 | 491.6 | 464.7 | 435.1 | 467.8 | 436.4 | 395.8 | 405.0 | 402.2 | 399.7 |
| Annual contribution deficiency (excess) | \$ 0.0 | \$ 0.0 | \$ 0.0 | \$ 0.0 | \$ 0.0 | \$ 0.0 | \$ 0.0 | \$ 0.0 | \$ 0.0 | \$ 0.0 |
| Covered payroll | \$3,449.3 | \$3,477.6 | \$3,462.5 | \$3,332.4 | \$3,302.8 | \$2,932.2 | \$2,845.4 | \$2,922.3 | \$2,905.7 | \$2,971.9 |
| Actual contributions as a percentage of covered payroll | 14.03 % | 14.14 % | 13.42 % | 13.06 % | 14.16 % | 14.88 % | 13.91 % | 13.86 % | 13.84 % | 13.45 % |

SCHEDULE OF INVESTMENT RETURNS⁽¹⁾

| Year ended June 30 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---------|-------|-------|-------|--------|-------|-------|--------|
| Annual money weighted rate of return, net of investment expense | 28.18 % | 2.91% | 5.96% | 9.37% | 13.27% | 0.81% | 3.45% | 17.21% |

⁽¹⁾The effort and cost to re-create financial statement information for the previous two years was not practical. Information was prepared prospectively from June 30, 2014 for GASB 67 purposes. Additional years will be added to the schedule as they become available.

See accompanying notes to the required supplementary information.

Required Supplementary Pension Information

Notes to Required Supplementary Pension Information June 30, 2021

Changes of Benefit Terms

No changes of benefit terms were implemented in FY2021.

Changes of Benefit Terms from 2018

With the authority granted to the Board under SB 8, the Board enacted a three-year COLA delay for future benefit recipients commencing on or after April 1, 2018.

Changes of Benefit Terms from 2017

The COLA was changed from a fixed 3.00% to a COLA that is indexed to CPI-W not greater than 2.50% with a floor of 0.0% beginning January 1, 2018. In addition, with the authority granted to the Board under HB 49, the Board enacted a three-year COLA suspension for benefit recipients in calendar years 2018, 2019, and 2020.

Changes of Assumptions from 2020

- Assumed rate of inflation was reduced from 3.00% to 2.40%.
- Assumed real wage growth was increased from 0.50% to 0.85%.
- Cost-of-Living-Adjustments was reduced from 2.50% to 2.00%.
- The discount rate was reduced from 7.50% to 7.00%
- Rates of withdrawal, compensation, participation, spouse coverage assumption, retirement, and disability were updated to reflect recent experience.
- Mortality among active members, service retirees and beneficiaries, and disabled members were updated.

Changes of Assumption from 2016

- Assumed rate of inflation was reduced from 3.25% to 3.00%.
- Payroll Growth Assumption was reduced from 4.00% to 3.50%.
- Assumed real wage growth was reduced from 0.75% to 0.50%.
- Rates of withdrawal, retirement, and disability were updated to reflect recent experience.
- Mortality among active members, service retirees and beneficiaries, and disabled members were updated.

Additional Actuarial Information

The following actuarial methods and assumptions (from the June 30, 2020 actuarial valuation) were used to determine the Actuarially Determined Contribution reported for FY2021 in the Schedule of Employer Contributions:

| | |
|---|---|
| Actuarial cost method: | Entry age normal |
| Amortization method: | Level percent of payroll |
| Remaining amortization period: | 24 years |
| Asset valuation method: | 4-year smoothed market |
| Inflation: | 3.00% |
| Salary increase, including price inflation: | 3.50% - 18.20% |
| Investment rate of return: | 7.50% net of investment expense, including inflation |
| Mortality: | The RP-2014 Blue Collar Mortality Table with fully generational projection and Scale BB, 120% of male rates and 110% of female rates is used to evaluate allowances to be paid. The RP-2000 Disabled Mortality Table with 90% for male rates and 100% for female rates set back five years is used for the period after disability retirement. These assumptions are used to measure the probabilities of each benefit payment being made after retirement. |

Required Supplementary Health Care Information

SCHEDULE OF CHANGES IN THE NET OPEB LIABILITY⁽¹⁾

| | 2021 | 2020 | 2019 | 2018 | 2017 |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|
| Total OPEB liability | | | | | |
| Service Cost | \$ 159,635,250 | \$ 164,641,764 | \$ 160,601,083 | \$ 155,385,800 | \$ 178,649,865 |
| Interest | 69,007,716 | 94,783,974 | 117,411,967 | 109,982,145 | 101,409,264 |
| Benefit changes | — | — | — | — | — |
| Difference between expected and actual experience | (67,242,883) | (772,465,329) | (653,300,118) | 53,656,583 | — |
| Changes of assumptions | (260,284,207) | 260,375,382 | 217,194,383 | (102,900,217) | (295,667,088) |
| Benefit payments* | (64,142,473) | (69,997,414) | (73,206,711) | (72,071,363) | (86,257,389) |
| Net change in total OPEB liability | (163,026,597) | (322,661,623) | (231,299,396) | 144,052,948 | (101,865,348) |
| Total OPEB liability - beginning | 2,655,938,750 | 2,978,600,373 | 3,209,899,769 | 3,065,846,821 | 3,167,712,169 |
| Total OPEB liability - ending (a) | \$2,492,912,153 | \$2,655,938,750 | \$2,978,600,373 | \$3,209,899,769 | \$3,065,846,821 |
| Plan fiduciary net position | | | | | |
| Contributions - employer | \$ 73,592,929 | \$ 80,536,164 | \$ 81,944,848 | \$ 100,056,736 | \$ 65,013,891 |
| Net investment income | 111,580,200 | 11,139,059 | 22,009,627 | 28,167,652 | 35,730,747 |
| Benefit payments* | (64,142,473) | (69,997,414) | (73,206,711) | (72,071,363) | (86,257,389) |
| Administrative expense | (3,311,946) | (2,877,010) | (2,566,722) | (2,632,948) | (2,582,204) |
| Other | — | — | — | — | — |
| Net change in plan fiduciary net position | 117,718,710 | 18,800,799 | 28,181,042 | 53,520,077 | 11,905,045 |
| Plan fiduciary net position - beginning | 482,611,478 | 463,810,679 | 435,629,637 | 382,109,560 | 370,204,515 |
| Plan fiduciary net position - ending (b) | 600,330,188 | 482,611,478 | 463,810,679 | 435,629,637 | 382,109,560 |
| Net OPEB liability - ending (a) - (b) | \$1,892,581,965 | \$2,173,327,272 | \$2,514,789,694 | \$2,774,270,132 | \$2,683,737,261 |

*Benefit payments are net of retiree contributions.

⁽¹⁾Additional years will be added to the schedule as they become available.

SCHEDULE OF THE NET OPEB LIABILITY⁽¹⁾

| | 2021 | 2020 | 2019 | 2018 | 2017 |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Total OPEB liability | \$ 2,492,912,153 | \$ 2,655,938,750 | \$ 2,978,600,373 | \$ 3,209,899,769 | \$ 3,065,846,821 |
| Plan fiduciary net position | 600,330,188 | 482,611,478 | 463,810,679 | 435,629,637 | 382,109,560 |
| Net OPEB liability | \$ 1,892,581,965 | \$ 2,173,327,272 | \$ 2,514,789,694 | \$ 2,774,270,132 | \$ 2,683,737,261 |
| Ratio of plan fiduciary net position to total OPEB liability | 24.08 % | 18.17 % | 15.57 % | 13.57 % | 12.46 % |
| Covered payroll | \$ 3,449,254,911 | \$ 3,477,578,726 | \$ 3,462,524,396 | \$ 3,332,395,171 | \$ 3,303,055,969 |
| Net OPEB liability as a percentage of covered payroll | 54.87 % | 62.50 % | 72.63 % | 83.25 % | 81.25 % |

⁽¹⁾Additional years will be added to the schedule as they become available.

Required Supplementary Health Care Information

SCHEDULE OF EMPLOYER CONTRIBUTIONS - OPEB (\$ in millions)

| | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Actuarially determined employer contribution | \$ 126.6 | \$ 161.0 | \$ 190.1 | \$ 189.4 | \$ 178.0 | \$ 161.6 | \$ 164.2 | \$ 190.4 | \$ 171.4 | \$ 155.9 |
| Actual employer contributions | 73.6 | 80.5 | 81.9 | 100.1 | 65.0 | 77.3 | 89.0 | 75.3 | 45.5 | 56.5 |
| Annual contribution deficiency (excess) | \$ 53.0 | \$ 80.5 | \$ 108.2 | \$ 89.3 | \$ 113.0 | \$ 84.3 | \$ 75.2 | \$ 115.1 | \$ 125.9 | \$ 99.4 |
| Covered payroll | \$3,449.3 | \$3,477.6 | \$3,462.5 | \$3,332.4 | \$3,303.1 | \$2,932.2 | \$2,845.4 | \$2,759.3 | \$2,746.8 | \$2,788.2 |
| Actual contributions as a percentage of covered payroll | 2.13 % | 2.32 % | 2.37 % | 3.00 % | 1.97 % | 2.64 % | 3.13 % | 2.73 % | 1.66 % | 2.03 % |

SCHEDULE OF INVESTMENT RETURNS - OPEB⁽¹⁾

| Year ended June 30 | 2021 | 2020 | 2019 | 2018 | 2017 |
|---|---------|-------|-------|-------|--------|
| Annual money weighted rate of return, net of investment expense | 24.85 % | 2.54% | 5.41% | 8.05% | 11.59% |

⁽¹⁾Additional years will be added to the schedule as they become available.
See accompanying notes to the required supplementary information.

Required Supplementary Health Care Information

Notes to Required Supplementary Health Care Information June 30, 2021

Changes of Benefit and Funding Terms

No changes of benefit or funding terms were implemented in FY2021.

Changes in Actuarial Assumptions from 2020

- Assumed rate of inflation was reduced from 3.00% to 2.40%.
- Payroll Growth Assumption was reduced from 3.50% to 1.75%.
- Assumed real wage growth was increased from 0.50% to 0.85%.
- Rates of withdrawal, retirement, and disability were updated to reflect recent experience.
- Rates of health care participation for future retirees and spouses was updated to reflect recent experience.
- Mortality among active members, service retirees and beneficiaries, and disabled members were updated.

Changes in Actuarial Assumptions from 2016

- Assumed rate of inflation was reduced from 3.25% to 3.00%.
- Payroll Growth Assumption was reduced from 4.00% to 3.50%.
- Assumed real wage growth was reduced from 0.75% to 0.50%.
- Rates of withdrawal, retirement, and disability were updated to reflect recent experience.
- Mortality among active members, service retirees and beneficiaries, and disabled members were updated.

Additional Actuarial Information

The following actuarial methods and assumptions (from the June 30, 2020 actuarial valuation) were used to determine the Actuarially Determined Contribution reported for FY2021 in the Schedule of Employer Contributions – OPEB:

| | |
|---|--|
| Actuarial cost method: | Entry age normal |
| Amortization method: | Level percent of payroll |
| Remaining amortization period: | 30 years |
| Asset valuation method: | Fair value |
| Price inflation: | 2.40% |
| Salary increase, including price inflation: | 3.50% - 18.20% |
| Actuarial assumptions: | Investment rate of return 5.25%, compounded annually |
| Medical trend assumptions: | Pre-Medicare - 7.00% initially, decreasing to 4.75% Medicare - 5.25% initially, decreasing to 4.75% |

OPERS Related Required Supplementary Pension Information

SCHEDULES OF SERS' PROPORTIONATE SHARE OF THE NET PENSION LIABILITY

| Ohio Public Employees Retirement Plan - Traditional Pension Plan | | | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Last 10 Fiscal Years* | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
| SERS' proportion of the net pension liability (asset) | 0.0909161% | 0.0923731% | 0.0958985% | 0.0973540% | 0.0956142% | 0.0937745% | 0.0925739% |
| SERS' proportionate share of the net pension liability (asset) | \$13,462,691 | \$18,258,172 | \$26,288,404 | \$15,272,959 | \$21,712,365 | \$16,242,931 | \$11,165,446 |
| SERS' covered payroll | 12,805,035 | 12,996,795 | 12,963,846 | 11,946,483 | 10,594,473 | 10,003,875 | 9,728,270 |
| SERS' proportionate share of the net pension liability (asset) as a % of its covered payroll | 105% | 140% | 203% | 128% | 205% | 162% | 115% |
| Plan fiduciary net position as a % of the total pension liability | 86.88% | 82.17% | 74.70% | 84.66% | 77.25% | 81.08% | 86.45% |

*The amounts presented were determined as of 12/31 of the prior calendar year. GASB 68 was implemented in 2015. Additional years will be added to the schedule as available.

| Ohio Public Employees Retirement Plan - Combined Pension Plan | | | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Last 10 Fiscal Years* | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
| SERS' proportion of the net pension liability (asset) | 0.1994927 % | 0.1942455 % | 0.0217249 % | 0.2256010 % | 0.2277590 % | 0.2364605 % | 0.2391363 % |
| SERS' proportionate share of the net pension liability (asset) | \$ (575,863) | \$ (405,048) | \$ (242,933) | \$ (307,116) | \$ (126,764) | \$ (115,067) | \$ (92,073) |
| SERS' covered payroll | 879,164 | 864,692 | 929,157 | 857,951 | 759,911 | 737,594 | 749,257 |
| SERS' proportionate share of the net pension liability (asset) as a % of its covered payroll | (66%) | (47%) | (26%) | (36%) | (17%) | (16%) | (12%) |
| Plan fiduciary net position as a % of the total pension liability | 157.67% | 145.28% | 126.64% | 137.28% | 116.55% | 116.90% | 114.83% |

*The amounts presented were determined as of 12/31 of the prior calendar year. GASB 68 was implemented in 2015. Additional years will be added to the schedule as available.

SCHEDULES OF CONTRIBUTIONS

| Ohio Public Employees Retirement Plan - Traditional Pension Plan | | | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Last 10 Fiscal Years* | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
| Contractually required contribution | \$1,792,704 | \$1,819,551 | \$1,781,661 | \$1,616,321 | \$1,517,599 | \$1,457,881 | \$1,361,957 |
| Contributions in relation to the contractually required contribution | 1,792,704 | 1,819,551 | 1,781,661 | 1,616,321 | 1,517,599 | 1,457,881 | 1,361,957 |
| Contribution deficiency (excess) | — | — | — | — | — | — | — |
| SERS' covered payroll | \$12,898,191 | \$12,998,243 | \$12,726,150 | \$11,545,152 | \$10,839,992 | \$10,413,435 | \$9,877,201 |
| Contributions as a % of covered payroll | 14% | 14% | 14% | 14% | 14% | 14% | 14% |

*The amounts presented were determined as of 6/30 of the fiscal year. GASB 68 was implemented in 2015. Additional years will be added to the schedule as available.

| Ohio Public Employees Retirement Plan - Combined Pension Plan | | | | | | | |
|--|------------|------------|------------|------------|------------|------------|------------|
| Last 10 Fiscal Years* | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
| Contractually required contribution | \$ 123,083 | \$ 121,057 | \$ 127,825 | \$ 116,006 | \$ 110,430 | \$ 109,964 | \$ 104,896 |
| Contributions in relation to the contractually required contribution | 123,083 | 121,057 | 127,825 | 116,006 | 110,430 | 109,964 | 104,896 |
| Contribution deficiency (excess) | — | — | — | — | — | — | — |
| SERS' covered payroll | \$ 881,469 | \$ 864,788 | \$ 913,034 | \$ 828,612 | \$ 788,786 | \$ 785,457 | \$ 760,728 |
| Contributions as a % of covered payroll | 14% | 14% | 14% | 14% | 14% | 14% | 14% |

*The amounts presented were determined as of 6/30 of the fiscal year. GASB 68 was implemented in 2015. Additional years will be added to the schedule as available.

OPERS Related Required Supplementary OPEB Information

SCHEDULE OF SERS' PROPORTIONATE SHARE OF THE NET OPEB LIABILITY

| Ohio Public Employees Retirement Plan | | | | | |
|---|---------------|--------------|--------------|--------------|--------------|
| Last 10 Fiscal Years* | 2021 | 2020 | 2019 | 2018 | 2017 |
| SERS' proportion of the net OPEB liability | 0.1007839 % | 0.1014843 % | 0.0104825 % | 0.1060842 % | 0.1047274 % |
| SERS' proportionate share of the net OPEB liability | \$(1,795,546) | \$14,017,613 | \$13,666,743 | \$11,519,966 | \$10,577,819 |
| SERS' covered payroll | 445,100 | 417,675 | 375,863 | 1,338,357 | 2,243,369 |
| SERS' proportionate share of the net OPEB liability as a % of its covered payroll | (403)% | 3,356 % | 3,636 % | 861 % | 472 % |
| Plan fiduciary net position as a % of the total OPEB liability | 115.57 % | 47.80 % | 46.33 % | 54.14 % | 54.05 % |

*The amounts presented were determined as of 12/31 of the prior calendar year. GASB 75 was implemented in 2018. Additional years will be added to the schedule as they become available.

SCHEDULE OF OPEB CONTRIBUTIONS

| Ohio Public Employees Retirement Plan | | | | | |
|--|------------|------------|------------|--------------|--------------|
| Last 10 Fiscal Years* | 2021 | 2020 | 2019 | 2018 | 2017 |
| Contractually required contribution | \$ 62,314 | \$ 58,824 | \$ 125,775 | \$ 262,029 | \$ 295,539 |
| Contributions in relation to the contractually required contribution | 62,314 | 58,824 | 125,775 | 262,029 | 295,539 |
| Contribution deficiency (excess) | — | — | — | — | — |
| SERS' covered payroll | \$ 446,267 | \$ 417,722 | \$ 898,395 | \$ 1,871,633 | \$ 2,110,993 |
| Contributions as a % of covered payroll | 14 % | 14 % | 14 % | 14 % | 14 % |

*The amounts presented were determined as of 6/30 of the fiscal year. GASB 75 was implemented in 2018. Additional years will be added to the schedule as they become available.

Other Supplementary Information

SCHEDULE OF ADMINISTRATIVE EXPENSES for the year ended June 30, 2021

| | General Expenses | Investment Related Expenses | Total |
|---|------------------|-----------------------------|---------------|
| Personnel Services | | | |
| Salaries | \$ 13,639,434 | \$ 2,444,543 * | \$ 16,083,977 |
| Retirement Contributions | (11,676,569) | 312,266 | (11,364,303) |
| Insurance | 3,764,406 | 382,915 | 4,147,321 |
| Total Personnel Services | 5,727,271 | 3,139,724 | 8,866,995 |
| Professional Services | | | |
| Actuarial Advisors | 339,054 | | 339,054 |
| Audit Services | 185,539 | | 185,539 |
| Custodial Banking | 186,841 | 881,324 | 1,068,165 |
| Master Recordkeeper | — | — | — |
| Investment Related Consulting | 40,847 | 2,456,632 | 2,497,479 |
| Medical | 42,500 | | 42,500 |
| Technical | 1,307,304 | 232,725 | 1,540,029 |
| Total Professional Services | 2,102,085 | 3,570,681 | 5,672,766 |
| Communications | | | |
| Postage | 583,673 | — | 583,673 |
| Telecommunications Services | 216,511 | — | 216,511 |
| Member / Employer Education | 475 | — | 475 |
| Printing and Publication | 86,062 | — | 86,062 |
| Total Communications | 886,721 | — | 886,721 |
| Other Services | | | |
| Computer Support Services | 1,852,833 | | 1,852,833 |
| Office Equipment and Supplies | 127,994 | 88 | 128,082 |
| Training | 73,584 | 1,300 | 74,884 |
| Transportation and Travel | 28,928 | 561 | 29,489 |
| Memberships and Subscriptions | 88,195 | 54,794 | 157,690 |
| Property and Fiduciary Insurance | 391,771 | | 391,771 |
| Facilities Expense | 691,968 | | 691,968 |
| Maintenance | 56,172 | | 56,172 |
| Staff Support | 102,547 | | 102,547 |
| Ohio Retirement Study Council | 44,532 | | 44,532 |
| Miscellaneous | 15,531 | | 15,531 |
| Total Other Services | 3,474,054 | 56,743 | 3,545,499 |
| Total Administrative Expenses before Depreciation | 12,190,132 | 6,767,148 | 18,971,981 |
| Depreciation | | | |
| Furniture and Equipment | 2,485,999 | — | 2,485,999 |
| Building | 1,408,726 | — | 1,408,726 |
| Total Depreciation | 3,894,725 | — | 3,894,725 |
| Total Administrative Expenses | \$ 16,084,857 | \$ 6,767,148 | \$ 22,852,005 |

*Includes salary and incentive payments for investment staff.

See accompanying independent auditor's report.

Other Supplementary Information

SCHEDULE OF INVESTMENT EXPENSES for the year ended June 30, 2021

| Description of Expenses | Net Assets Under Management | Direct Fees |
|--|-----------------------------|-----------------------|
| Global Equities | 8,751,893,637 | 24,475,641 |
| Global Private Equity | 2,147,918,916 | 20,414,938 |
| Global Fixed Income | 2,674,655,067 | 8,527,707 |
| Multi-Asset Strategies | 221,496,023 | 2,500,486 |
| Global Real Assets | 2,723,556,505 | 19,708,495 |
| Global Private Credit | 408,697,444 | 4,945,551 |
| Opportunistic Investments | 566,406,161 | 7,448,377 |
| Cash Equivalents | 653,364,390 | 5,223,341 |
| Total Investment Management Fees | | \$ 93,244,536 |
| Custody Service Fees | | 881,324 |
| Master Recordkeeper Fees | | 989,247 |
| Investment Consulting and Performance/Analytics Fees | | 1,492,272 |
| Investment Administrative Expenses | | 3,404,305 |
| Total Other Investment Expenses | | 6,767,148 |
| Total Investment Expenses | | \$ 100,011,684 |

SCHEDULE OF PAYMENTS TO CONSULTANTS

SERS paid the following non-investment related consulting fees in FY2021:

| | |
|------------------------------------|---------------------|
| Actuarial Advisors | \$ 339,054 |
| Audit Services | 185,539 |
| Legal Counsel | 123,630 |
| Medical Consultant | 42,500 |
| Information Technology Consultants | 811,555 |
| Health Care Consultants | 138,000 |
| Other Consultants | 461,807 |
| Total | \$ 2,102,085 |

See accompanying independent auditor's report.

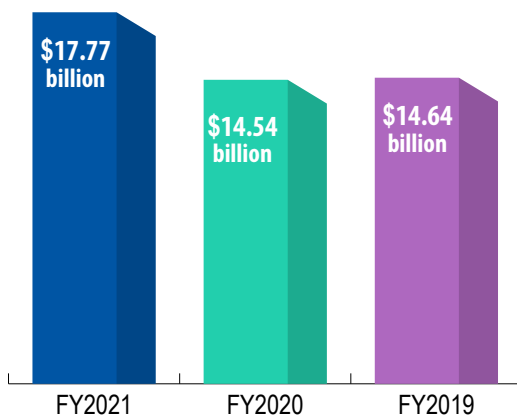
INVESTMENT SECTION

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INVESTMENT HIGHLIGHTS

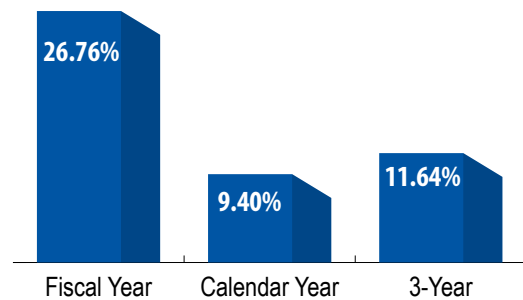
For fiscal year-end June 30, 2021, SERS' gross investment rate of return was 27.45% with \$17.77 billion in assets. The Fund's net return was 26.76% which outperformed the policy benchmark by 3.19%. SERS maintains a diversified investment portfolio including global equities, global bonds, global private credit, global real assets, global private equity, and short-term securities.

Total Fund Balance

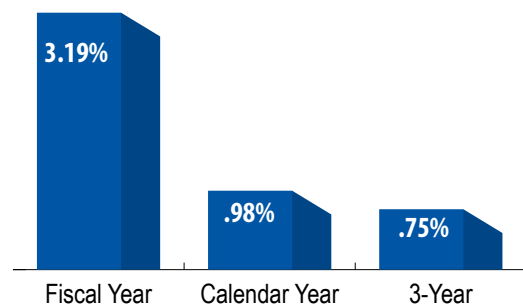


Difference
\$3.13 BILLION
FY2019 - FY2021

Total Fund Return (net of fees)



Total Fund Excess Return vs. Benchmark





SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

300 E. BROAD ST., SUITE 100 • COLUMBUS, OHIO 43215-3746
614-222-5853 • Toll-Free 800-878-5853 • www.ohsers.org

RICHARD STENSRUD
Executive Director

KAREN ROGGENKAMP
Deputy Executive Director

December 1, 2021

Retirement Board, Members, Retirees, and Beneficiaries of the Retirement System:

On behalf of the SERS Investment Department, I respectfully submit the Investment Section of the *Annual Comprehensive Financial Report* for the year ended June 30, 2021. Information in this section was compiled by SERS' Investment and Finance Staff, and BNY Mellon Global Risk Solutions. Investment results are based upon a time-weighted rate of return methodology, and assets are shown at fair value.

The U.S. economy rebounded strongly in FY2021 with GDP growth rate of 12.2% compared to -9.1% GDP in FY2020, and 7.9 million jobs were added back. The strong recovery was helped by monetary and fiscal stimulus of unprecedented scale as well as fast COVID-19 vaccination rollout. The equity markets also had an exceptional 12-month period as the US equity markets gained 44.2% and the non-US equity markets returned 35.7% while the US fixed income Bloomberg Barclay's Aggregate index was down 0.3%.

SERS total fund generated a net of fees (NOF) return of 26.8% in FY2021, exceeding the policy benchmark by 3.2%. Private Equity recorded the highest return at 45.8% followed by Global Equities at 41.6% and Opportunistic at 25.8%. The total fund five-year return of 11.5% exceeded the policy benchmark by 0.9%, while the ten-year return of 9.2% exceeded the benchmark by 0.5%. Implementation of the investment program added value to the fund over five and ten-year periods relative to the total fund benchmark and also exceeded the actuarial rate of 7.5%.

Staff will continue to remain focused on implementing the portfolio to add value relative to the benchmark and to manage risks which are expected to remain elevated in the near term. Valuations across most asset classes exceed long-term averages by a good margin, hence, forward returns are likely to be lower.

I wish to thank the Investment staff for their dedication and accomplishments this year, and I appreciate the support of the Board and the Executive team. We look forward to working with the Board and the Executive team in the coming year to serve our members with excellence.

Respectfully,

Farouki Majeed
Chief Investment Officer

Investment Report

Chapter 3309 of the Ohio Revised Code and the Board-adopted Investment Policy govern investment activity at the School Employees Retirement System of Ohio (SERS). The Board is responsible for managing the assets of the Fund effectively, prudently, and for the exclusive benefit of SERS' members and beneficiaries.

INVESTMENT POLICY

The Board approves the *Statement of Investment Policy*. The purpose of the policy is to set forth SERS' investment philosophy and objectives. The policy establishes investment policies and describes the organization and division of responsibilities necessary to implement the Board's philosophy and objectives prudently; and establishes a framework for making investment decisions, monitoring investment activity, and promoting effective communication between the Board, Staff, and other involved parties.

INVESTMENT OBJECTIVES

The primary objective of the investment portfolio is to achieve investment returns exceeding the return of our Policy Benchmark within prudent risk parameters. Over the long term, it is expected that investment returns also should meet or exceed the Board-approved actuarial assumed rate of 7.0% effective July 2021.

INVESTMENT STRATEGIES

Asset Allocation Adjustments made during FY2021 were to gradually reduce multi-asset strategies from 10.0% to 0.0% and revise the Global Equities portfolio and Opportunistic and Tactical strategy benchmarks. SERS' new policy, as well as FY2021 interim strategic asset allocation targets and corresponding benchmarks, were as follows:

| Asset Class | FY2021 Interim Targets | FY2022 Policy | Benchmark |
|--|-----------------------------------|--------------------------|--|
| Global Equities | 45% | 45% | <i>US Equity</i> : 55% Russell 3000; <i>NUSE Developed Market</i> : 30% MSCI World ex-USA Net Total Return Index (USD); <i>NUSE Emerging Market</i> : 15% MSCI Emerging Markets Net Total Return Index (USD) |
| Global Private Equity | 11% | 12% | Burgiss All Private Equity benchmark (BAPE) (one quarter in arrears) |
| Global Fixed Income | 19% | 19% | Bloomberg US Aggregate Bond Index |
| Global Private Credit | 3% | 5% | LIBOR + 4.5% |
| Global Real Assets | 16% | 17% | NCREIF Property Index (one quarter in arrears) |
| Cash Equivalents | 2% | 2% | FTSE 30-day T-Bill Index |
| Multi-Asset Strategies | 4% | NA | HFRI Fund of Funds Composite Index plus 1.0% |
| Strategy | | | Benchmark |
| Opportunistic and Tactical Investments | 0% | 0% | Bloomberg US Aggregate Bond Index + 2% |

Diversification Broad diversification within an investment portfolio is used to control the level of risk and volatility within the portfolio over the long term. SERS has adopted a broadly diversified asset allocation policy, and the strategies used within each asset class also have been diversified.

Besides the broad diversification of assets and strategies within SERS' portfolio, SERS also employs a diverse group of investment managers with the goal of outperforming the respective benchmark while managing relative risks.

Wilshire Associates, Inc., SERS' general investment consultant, assists the Board on matters of investment policy and asset allocation recommendations. Wilshire also reports to the Board on quarterly performance reviews of the Fund and each portfolio.

Proxy Voting In 2012, the Board adopted SERS' Corporate Governance Principles. The Board authorizes the Proxy Review Committee, which consists of staff members from Executive and Investments, to vote proxies according to the *SERS Proxy Voting Guidelines*. This committee implements a process for voting proxies as described in the *Proxy Voting Policy and Procedures* document. Staff hires a proxy voting advisor, Institutional Shareholder Services (ISS), to vote proxies according to SERS' custom vote policy and provide advice on corporate governance-related matters.

Sustainability and Corporate Governance Good governance of markets and entities comprising the markets improves outcomes for investors. SERS' Board and Staff will exercise corporate ownership responsibly and with the best fiduciary interest of members and stakeholders. SERS' Board and Staff must be attentive to important environmental, social, and governance issues that affect markets and promote its interests in a responsible manner in the best fiduciary interest of members and stakeholders.

Global Equities

Global equity markets rebounded sharply for FY2021 due to unprecedented global government support in response to the coronavirus pandemic. The Russell 3000 returned 44.2% for US markets, while the MSCI World ex-US posted a 33.6% non-US developed market return and the MSCI Emerging Index generated a 40.9% emerging market return for FY2021. The FY2021 global market favored large cap growth through early fall, which then shifted to favoring small cap value equities in November with COVID-19 vaccine announcements.

During the fiscal year, the US Equity portfolio returned 41.6% net of fees, which underperformed the Russell 3000 index benchmark by 2.7%. This underperformance was driven by SERS' active managers underperforming their respective benchmarks as active managers had trouble quickly repositioning their portfolios with the large growth to small value market shift after the COVID-19 vaccine announcement. The large cap passive portfolio also underperformed the Russell 3000 by 0.9% as this portfolio replicates the Russell 1000, which returned 43.1% versus the US small capitalization Russell 2000 index return of 62.0%.

The Non-US Developed Equity portfolio returned 39.3% net of fees, outperforming the MSCI World ex-US benchmark by 5.7% in FY2021. Returns were boosted by SERS' core ACWI ex-US mandate, which posted a 50.2% net return. Small cap also helped performance with this portfolio returning 44.2% net of fees.

The Non-US Emerging Equity portfolio returned 50.1% net of fees, outperforming the MSCI Emerging Market benchmark by 9.2%. This portfolio is 100% actively managed. Performance was boosted by managers over weighting smaller capitalization stocks and over weighting technology (76.2% FY2021 index return) and materials (72.0% FY2021 index return), the two best performing sectors in the index.

Global Private Equity

Despite an economic slowdown triggered by a global pandemic, private equity emerged from 2020 relatively unscathed. Private equity investment activity fell sharply in April and May; however, the environment changed dramatically in the second half of the year as market conditions improved and private equity investors put large amounts of capital to work. After falling off in the first half of the year, the private equity industry raced to the finish line completing over \$590 billion in transactions in 2020. Overall, the year observed an 8.0% increase in transactions from the prior year. Highlighting the level of the second half of the year activity, \$410 billion of the \$590 billion total was completed in the third and fourth quarters. Nevertheless, the total volume of deals completed fell to approximately 3,100 in 2020 representing a 24% decrease from the 4,100 transactions completed in 2019. The rise in dollar volume combined with the decrease in transactions highlights the ever increasing transactions sizes in the marketplace with the average deal size coming in at approximately \$776 million. The increase in deal flow is a direct result of the abundance of low-cost debt financing and the estimated \$2.9 trillion of dry powder available across all fund types and all geographies at the end of 2020. The intense competition for assets has led to growth in purchase price multiples and made it very difficult for private equity firms to find and purchase companies. Purchase price multiples have risen from 8.5 times earnings in 2010 to an average of 11.5 times earnings in 2020. Nevertheless, the same factors that complicated deal making paved the way for an excellent exit market for private equity funds in 2020. Just over 1,000 exits were completed in 2020 for a total value of \$427 billion. This was on balance with 2019 and in line with the five-year average. The first half of the year slowdown in activity also affected the fundraising market as private equity raised a total of \$989 billion in 2020, down from a record high \$1.1 trillion in 2019. SERS' Private Equity portfolio generated a net return of 45.8% for FY2021, trailing the benchmark return of 47.3%

Global Fixed Income

For FY2021, the global fixed income portfolio produced a net return of 3.6% relative to the Bloomberg US Aggregate Bond Index return of (0.3%). While high yield and local currency emerging market debt were hit hardest in FY2020, they rebounded and had the strongest FY2021 returns at 15.4% and 8.0%, respectively. High yield spreads have recovered to pre-pandemic levels and emerging markets stand to benefit from a weaker dollar and continued vaccine rollout in the second half of 2021. Investment grade corporates recovered quickly after March 2020 and returned 4.6% by December 31, 2020, but gave back some of the gains and ended the fiscal year with a return of 3.3%. Residential mortgages returned (0.4%) for the fiscal year. US Treasuries were the poorest performing sector with a return of (3.2%) and the portfolio benefited from under weighting the sector.

Several new strategies were introduced to the portfolio at the beginning of the fiscal year when long/short credit, emerging market macro and fixed income arbitrage strategies were transferred from the MAS portfolio. Additionally, the portfolio made allocations to two opportunistic drawdown strategies, one focused on structured credit and the other on corporate and emerging market debt. Along with the existing emerging market debt and opportunistic high yield strategies, these exposures constitute the new Tactical and Diversifying sector. This sector has had the desired effect of increasing performance and diversifying the sources of portfolio return relative to the Bloomberg US Bond Aggregate Index.

Global Private Credit

The global private credit portfolio generated a net return of 17.6% during FY2021 versus the benchmark return of 4.8%. While the performance timeframe for the portfolio is short, the portfolio benefited from the recovery of valuations as the economic outlook improved throughout the fiscal year. In addition, a stressed debt investment executed during the market dislocation contributed positively to the portfolio's return. The tumultuous market environment during FY2021 tested the ability of private credit managers to navigate through a period of great uncertainty, but also provided a robust pipeline of investment opportunities. The private credit market continued to grow throughout the fiscal year and capital raising activity increased as managers sought to deploy capital given the strong demand from borrowers. The market environment was ideal for ramping the private credit portfolio towards its target allocation. During FY2021, a total of \$632.1 million was deployed, which included six new investments totaling \$575 million, the increase of capital commitments for two existing investments totaling \$50 million, and one co-investment totaling \$7.1 million.

Global Real Assets

During FY2021, market conditions were challenging for both commercial real estate and infrastructure assets because of the uneven recovery from the COVID-19 pandemic. In real estate, industrial and multifamily property types performed well during fiscal year but retail and hospitality assets were adversely impacted. Real estate returns for FY2021 dipped below the long-term average levels of 7.0-9.0% because of the uneven recovery. Going forward, returns are expected to be near long-term averages, and the economic recovery is expected to support multifamily, industrial, hospitality, and select niche property types. Infrastructure assets, particularly renewable energy, utilities, and digital infrastructure, performed well during the fiscal year despite pandemic induced challenges for transportation and energy assets. Many real estate and infrastructure assets realized strong returns since their lows during the COVID-19 pandemic. Going forward, infrastructure and real estate total returns are expected to be driven by income returns. Cash yields continue to be the focus for the asset class, which produced a one-year income return around 2.9% gross of fees as of June 30, 2021.

Multi-Asset Strategies

The MAS portfolio returned 17.4% gross of fees. This asset strategy will be phased out by June 30, 2022, as recommended in the recent asset allocation study. Exposure was reduced from 10% of the Total Fund to 4% by June 30, 2021.

Opportunistic and Tactical Investments

The opportunistic and tactical portfolio returned 25.8% net of fees. The portfolio benefited from a risk-on environment as credit spreads tightened and equity markets generated double digit returns. The opportunistic portfolio is comprised of non-traditional investment opportunities which do not fit neatly within SERS' strategic asset classes. Opportunistic investments are defined as tactical or non-traditional investment opportunities. Such investments may involve capitalizing on short-term market dislocations or other unique situations or innovative strategies including tactical allocation. The opportunistic portfolio has a 0.0% policy target allocation with a maximum of 5.0%, giving staff flexibility to invest only when market conditions present attractive opportunities. SERS made four opportunistic investments in FY2021, committing a total of \$275 million to funds that will invest in strategies including distressed debt and structured products.

Cash Equivalents

The cash equivalents portfolio consists primarily of short-term cash and any gains or losses of the overlay program. Short-term cash is a source of liquidity for the Total Fund. For FY2021 the short-term cash returned 0.0%, underperforming the FTSE 30-day T-Bill Index by 3 bps. As of June 30, 2021, the weight of cash equivalents was 3.4% of the Total Fund.

Overlay Program

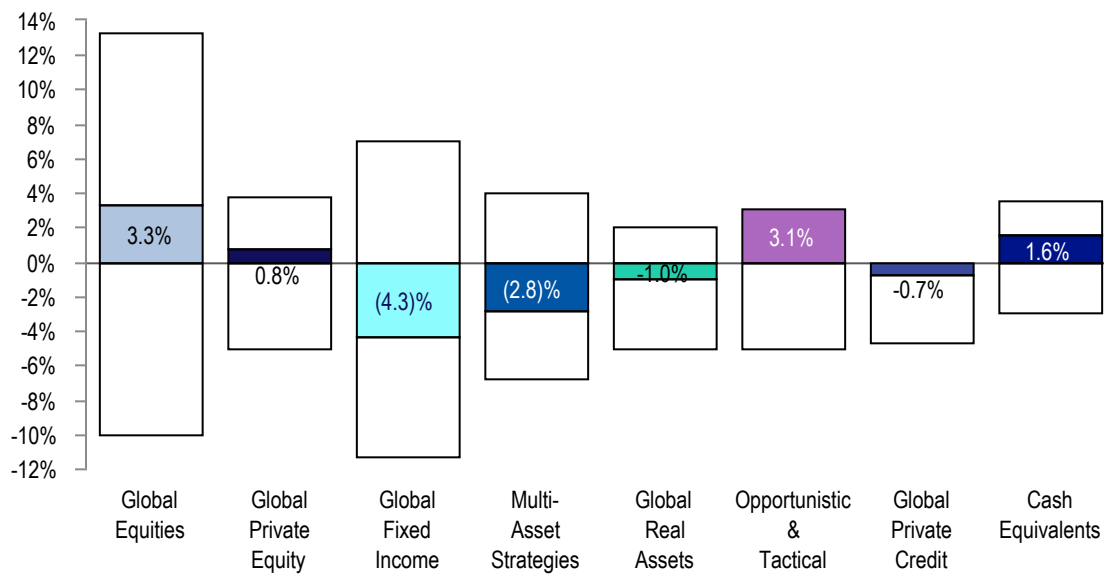
The overlay program, comprised of the enhanced asset allocation and active currency programs, aims at adding value by taking active long/short positions in the broad asset classes and foreign exchange markets, with a tight risk budget. For FY2021, the overlay program produced gains and added 8 bps to the total fund's return. These programs do not require full cash funding except for the margin requirements since they are implemented through futures and forward contracts.

Investments

Investment Summary as of June 30, 2021

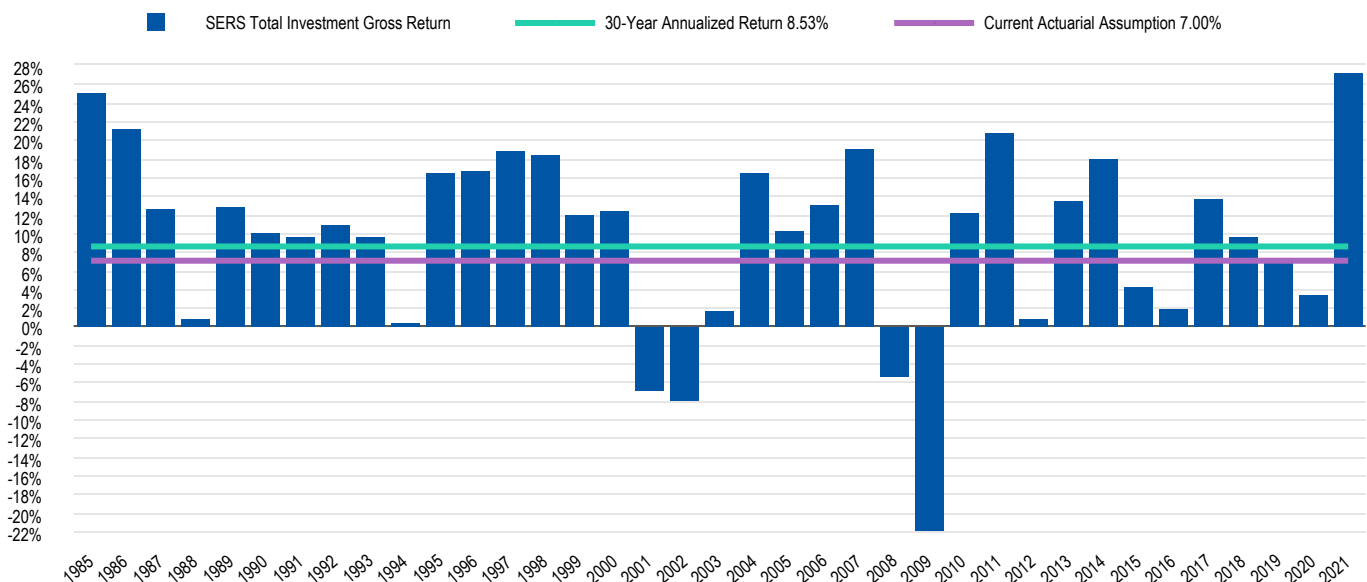
| | Fair Value | % of Fair Value | Policy | Range |
|--|--------------------------|-----------------|----------------|-----------|
| Global Equities | \$ 8,751,893,637 | 48.3 % | 45.0 % | 35% - 55% |
| Global Private Equity | 2,147,918,916 | 11.8 | 11.0 | 8 - 16 |
| Global Fixed Income | 2,674,655,067 | 14.7 | 19.0 | 12 - 26 |
| Multi-Asset Strategies | 221,496,023 | 1.2 | 4.0 | 0 - 0 |
| Global Real Assets | 2,723,556,505 | 15.0 | 16.0 | 14 - 20 |
| Opportunistic and Tactical Investments | 566,406,161 | 3.1 | 0.0 | 0 - 5 |
| Global Private Credit | 408,697,444 | 2.3 | 3.0 | 3 - 7 |
| Cash Equivalents | 653,364,390 | 3.6 | 2.0 | 0 - 5 |
| Total Portfolio | \$ 18,147,988,143 | 100.0 % | 100.0 % | |

Asset Allocation vs. Policy



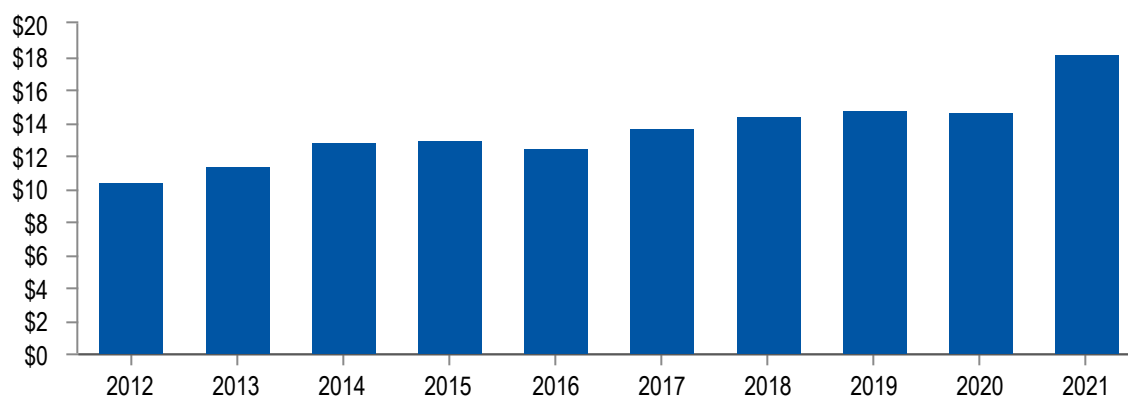
Note: Boxes represent permissible ranges around target weights.

SERS Total Investment Return (Gross of Fees)



Investments

Total Investment Fund at Fair Value *(\$ in billions)*



Schedule of Investment Results for the years ended June 30 (Gross of Fees)

| | 2021 | 2020 | 2019 | Annualized Rates of Return | | |
|--|--------|-------|-------|----------------------------|---------|----------|
| | | | | 3 Years | 5 Years | 10 Years |
| Global Equities | | | | | | |
| SERS | 41.9 % | 3.0 % | 5.0 % | 15.4 % | 15.5 % | 11.0 % |
| Custom Global Equities Benchmark ⁽¹⁾ | 40.3 | 0.8 | 5.2 | 14.1 | 14.6 | 10.3 |
| Global Private Equity | | | | | | |
| SERS ⁽²⁾ | 48.1 | 4.0 | 16.7 | 21.6 | 20.9 | 19.3 |
| Custom Global Private Equity Benchmark ⁽³⁾ | 47.3 | 1.9 | 10.3 | 17.8 | 16.7 | 14.9 |
| Global Fixed Income | | | | | | |
| SERS | 3.9 | 8.8 | 8.3 | 7.0 | 4.6 | 4.6 |
| Barclays Capital US Aggregate Bond Index | (0.3) | 8.7 | 7.9 | 5.3 | 3.0 | 3.4 |
| Multi-Asset Strategies | | | | | | |
| SERS ⁽⁴⁾ | 17.4 | 0.9 | 4.3 | 7.3 | 7.6 | 6.1 |
| Custom Multi-Asset Strategies Benchmark ⁽⁵⁾ | 19.2 | 1.1 | 2.4 | 7.3 | 7.1 | 4.6 |
| Global Real Assets | | | | | | |
| SERS ⁽⁶⁾ | 8.7 | 5.0 | 10.5 | 8.0 | 8.8 | 10.6 |
| Custom Global Real Assets Benchmark ⁽⁷⁾ | 2.6 | 5.3 | 6.8 | 4.9 | 5.8 | 8.8 |
| Opportunistic and Tactical Investments | | | | | | |
| SERS ⁽⁸⁾ | 27.3 | (6.1) | 7.1 | 8.6 | 12.0 | N/A |
| Policy Benchmark | 1.7 | 3.7 | 6.5 | 3.9 | 6.3 | N/A |
| Global Private Credit | | | | | | |
| SERS ⁽⁹⁾ | 19.5 | N/A | N/A | N/A | N/A | N/A |
| 3 month LIBOR +4.5% | 4.8 | N/A | N/A | N/A | N/A | N/A |
| Cash Equivalents | | | | | | |
| SERS | 2.6 | 0.8 | 5.1 | 2.8 | 2.1 | 1.6 |
| Citigroup 30 Day Treasury Bill Index | 0.1 | 1.4 | 2.3 | 1.2 | 1.1 | 0.6 |
| Total Fund (Gross of Fees) | | | | | | |
| SERS | 27.5 | 3.6 | 7.3 | 12.3 | 12.1 | 9.9 |
| Policy Benchmark ⁽¹⁰⁾ | 23.6 | 3.7 | 6.5 | 10.9 | 10.5 | 8.6 |
| Total Fund (Net of Fees) | | | | | | |
| SERS | 26.8 | 3.0 | 6.6 | 11.6 | 11.5 | 9.2 |
| Policy Benchmark ⁽¹⁰⁾ | 23.6 | 3.7 | 6.5 | 10.9 | 10.5 | 8.6 |

Source: BNY Mellon Global Risk Solutions

Investment results provided by BNY Mellon Global Risk Solutions are based upon a time-weighted rate of return methodology. Fair value adjustments made to global private equity, global real assets, opportunistic and tactical, multi-asset strategies, and global private credit as of June 30 will be reflected in the investment returns in the next financial statement.

Notes to Investment Results

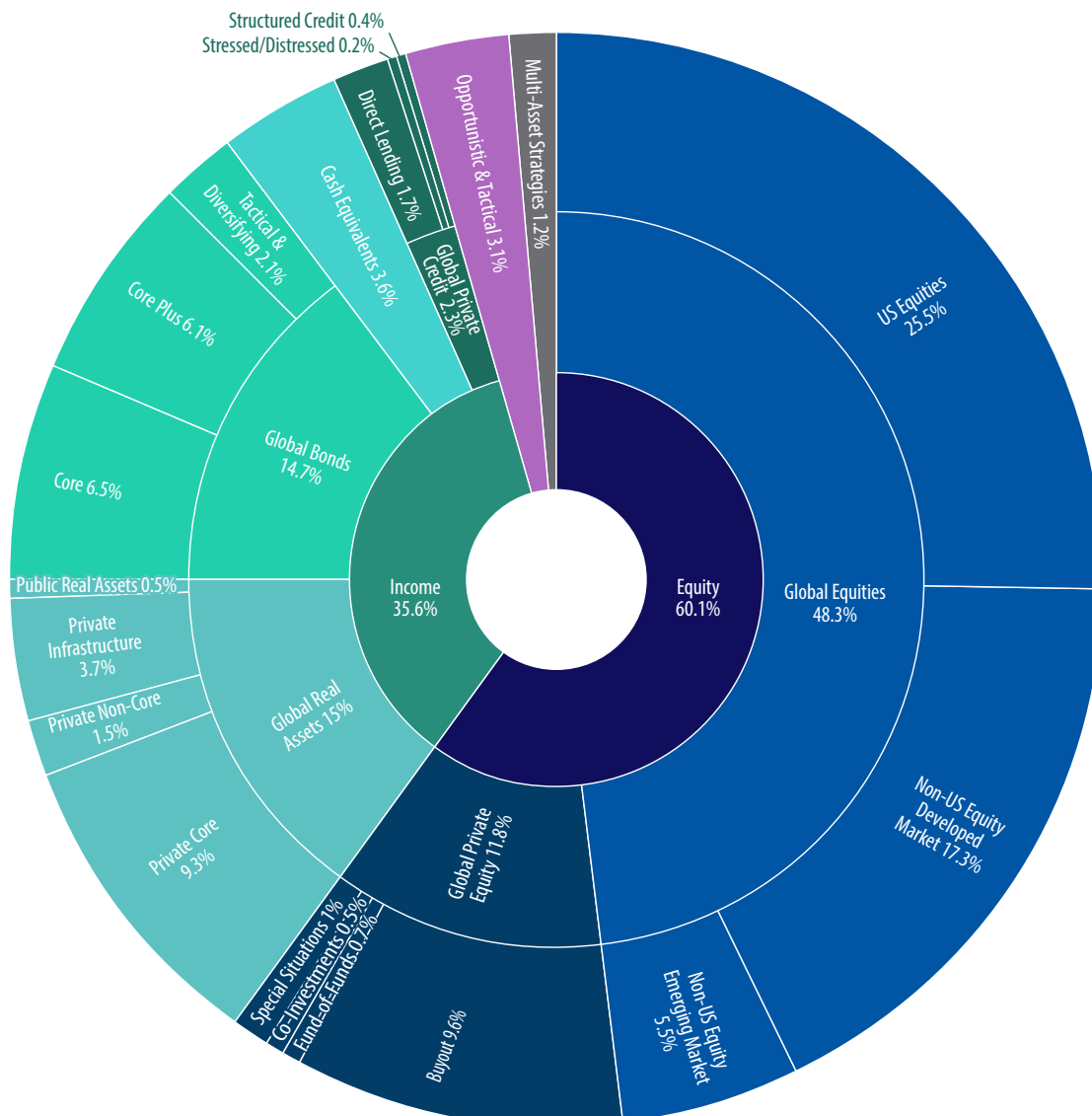
- (1) Custom Global Equities Benchmark:
- a) Effective January 1, 2021
 - 55.0% Russell 3000 Index
 - 30.0% MSCI ACWI ex-US (net dividends) Index
 - 15.0% MSCI Emerging Markets Net Total Return Index
 - b) Effective January 1, 2014
 - 50.00% Russell 3000 Index
 - 50.00% MSCI ACWI ex-US (net dividends) Index
 - c) Effective July 1, 2013
 - 50.0% Russell 3000 Index
 - 50.0% MSCI ACWI ex-US (net dividends) Index (developed markets 50% hedged)
 - d) Prior to July 1, 2013
 - 50.0% Russell 3000 Index
 - 50.0% MSCI ACWI ex-US (gross dividends) Index (developed markets 50% hedged)
- (2) Global Private Equity returns are reported one quarter in arrears.
- (3) Custom Global Private Equity Benchmark:
- a) Effective January 1, 2014 Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
 - b) Prior to January 1, 2014 S&P 500 Index plus 3%
- (4) Prior to July 1, 2013 Multi-Asset Strategies was known as Hedge Funds.
- (5) Custom Multi-Asset Strategies Benchmark:
- a) Effective July 1, 2013 HFRI Fund of Funds Composite Index + 1.0%
 - b) Effective July 1, 2010 HFRI Fund of Funds Composite Index
- (6) Global Real Asset partnership returns are reported one quarter in arrears. Public real asset returns are reported in the current quarter.
- (7) Custom Global Real Assets Benchmark:
- a) Effective July 1, 2010 NCREIF Property Index (one quarter in arrears)
- (8) Opportunistic and Tactical Investments inception date occurred in June 2013.
- a) Effective July 1, 2020 Bloomberg US Aggregate Bond Index +20%
 - b) Prior to July 1, 2020 SERS Policy BM
- (9) Global Private Credit investments inception date occurred in July 2020
- (10) SERS Policy Benchmark weightings for the past 10 years:
- a) Effective January 1, 2020
 - 24.75% Russell 3000 Index
 - 13.50% MSCI ACWI ex-US (net dividends) Index
 - 6.75% MSCI Emerging Markets ex-US (net dividends) Index
 - 19.00% Barclays Capital US Aggregate Bond Index
 - 16.00% NCREIF Property Index (one quarter in arrears)
 - 11.00% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
 - 4.00% HFRI Fund of Funds Composite Index + 1.00%
 - 3.00% 3 Month LIBOR + 4.50%
 - 2.00% Citigroup 30 Day T-Bill Index
 - b) Effective July 1, 2020
 - 22.50% Russell 3000 Index
 - 22.50% MSCI ACWI ex-US (net dividends) Index
 - 19.00% Barclays Capital US Aggregate Bond Index
 - 16.00% NCREIF Property Index (one quarter in arrears)
 - 11.00% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
 - 4.00% HFRI Fund of Funds Composite Index + 1.00%
 - 3.00% 3 Month LIBOR + 4.50%
 - 2.00% Citigroup 30 Day T-Bill Index
 - c) Effective January 1, 2016
 - 22.50% Russell 3000 Index
 - 22.50% MSCI ACWI ex-US (net dividends) Index
 - 19.00% Barclays Capital US Aggregate Bond Index
 - 15.00% NCREIF Property Index (one quarter in arrears)
 - 10.00% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
 - 10.00% HFRI Fund of Funds Composite Index + 1.0%
 - 1.00% Citigroup 30 Day T-Bill Index
 - d) Effective January 1, 2015
 - 22.50% Russell 3000 Index
 - 22.50% MSCI ACWI ex-US (net dividends) Index
 - 19.00% Barclays Capital US Aggregate Bond Index
 - 12.00% NCREIF Property Index (one quarter in arrears)
- 10.00% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
- 13.00% HFRI Fund of Funds Composite Index + 1.0%
- 1.00% Citigroup 30 Day T-Bill Index
- e) Effective July 1, 2014
 - 22.50% Russell 3000 Index
 - 22.50% MSCI ACWI ex-US (net dividends) Index
 - 19.00% Barclays Capital US Aggregate Bond Index
 - 15.00% NCREIF Property Index (one quarter in arrears)
 - 10.00% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
 - 10.00% HFRI Fund of Funds Composite Index + 1.0%
 - 1.00% Citigroup 30 Day T-Bill Index
- f) Effective January 1, 2014
 - 22.50% Russell 3000 Index
 - 22.50% MSCI ACWI ex-US (net dividends) Index
 - 19.00% Barclays Capital US Aggregate Bond Index
 - 12.00% NCREIF Property Index (one quarter in arrears)
 - 10.00% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
 - 13.00% HFRI Fund of Funds Composite Index + 1.0%
 - 1.00% Citigroup 30 Day T-Bill Index
- g) Effective July 1, 2013
 - 22.50% Russell 3000 Index
 - 22.50% MSCI ACWI ex-US (net dividends) Index (developed markets 50% hedged)
 - 19.00% Barclays Capital US Aggregate Bond Index
 - 12.00% NCREIF Property Index (one quarter in arrears)
 - 10.00% SERS Custom Private Equity Benchmark
 - 13.00% HFRI Fund of Funds Composite Index + 1.0%
 - 1.00% Citigroup 30 Day T-Bill Index
- h) Effective July 1, 2010
 - 22.50% Russell 3000 Index
 - 22.50% MSCI ACWI ex-US Index (developed markets 50% hedged)
 - 19.00% Barclays Aggregate Index
 - 10.00% NCREIF
 - 10.00% SERS Custom Private Equity Benchmark
 - 15.00% HFRI Fund of Fund Index
 - 1.00% Citigroup 30 Day T-Bill Index

Investments

SERS Detailed Asset Allocation

| | |
|-------------------------------------|---------------|
| EQUITY | 60.1 % |
| Global Equities | 48.3 % |
| US Equities | 25.5 % |
| Non-US Equity Developed Market | 17.3 % |
| Non-US Equity Emerging Market | 5.5 % |
| Global Private Equity | 11.8 % |
| Buyout | 9.6 % |
| Fund-of Funds | 0.7 % |
| Co-Investments | 0.5 % |
| Special Situations | 1.0 % |
| OPPORTUNISTIC & TACTICAL | 3.1 % |
| Opportunistic & Tactical | 3.1 % |
| Opportunistic & Tactical | 3.1 % |
| MULTI-ASSET STRATEGIES | 1.2 % |
| Multi-Asset Strategies | 1.2 % |
| Multi-Asset Strategies | 1.2 % |

| | |
|------------------------------|---------------|
| INCOME | 35.6 % |
| Global Bonds | 14.7 % |
| Core | 6.5 % |
| Core Plus | 6.1 % |
| Tactical & Diversifying | 2.1 % |
| Global Private Credit | 2.3 % |
| Direct Lending | 1.7 % |
| Stressed/Distressed | 0.2 % |
| Structured Credit | 0.4 % |
| Global Real Assets | 15.0 % |
| Private Core | 9.3 % |
| Private Non-Core | 1.5 % |
| Private Infrastructure | 3.7 % |
| Public Real Assets | 0.5 % |
| Cash Equivalents | 3.6 % |
| Cash Equivalents | 3.6 % |



Investments

Largest Public Equity Holdings as of June 30, 2021

| Description | Country | Shares | Fair Value |
|--|---------------|-----------|----------------|
| 1 Apple, Inc. | United States | 1,260,801 | \$ 172,679,305 |
| 2 Microsoft Corp. | United States | 614,365 | 166,431,479 |
| 3 Amazon.com, Inc. | United States | 35,443 | 121,929,591 |
| 4 Facebook, Inc. | United States | 199,651 | 69,420,649 |
| 5 Samsung Electronics Co. Ltd. | South Korea | 875,312 | 62,724,916 |
| 6 Alphabet, Inc. Class A | United States | 24,819 | 60,602,786 |
| 7 Alphabet, Inc. Class C | United States | 22,176 | 55,580,152 |
| 8 Taiwan Semiconductor Manufacturing Co. | Taiwan | 458,222 | 55,059,956 |
| 9 ASML Holdings NV | Netherlands | 64,373 | 44,231,362 |
| 10 Johnson & Johnson | United States | 264,176 | 43,520,354 |

All monetary values stated in US dollars.

A complete listing of holdings is available upon request.

Largest Public Fixed Income Holdings as of June 30, 2021

| Description | Rating | Par Value | Fair Value |
|--|--------|---------------|---------------|
| 1 US Treasury Note 0.875% 11/15/2030 | AA+ | \$ 22,455,000 | \$ 21,353,302 |
| 2 GNMA TBA 2.000% 07/01/2051 | AA+ | 18,330,000 | 18,532,730 |
| 3 GNMA TBA 2.500% 09/01/2051 | AA+ | 15,775,000 | 16,250,099 |
| 4 GNMA II TBA 2.500% 07/20/2051 | AA+ | 14,800,000 | 15,315,688 |
| 5 US Treasury Note 1.625% 05/15/2031 | AA+ | 14,846,000 | 15,073,329 |
| 6 US Treasury Note 0.125% 04/30/2022 | AA+ | 14,495,000 | 14,499,530 |
| 7 US Treasury Bond 2.750% 08/15/2047 | AA+ | 11,477,000 | 13,055,088 |
| 8 US Treasury Note 0.750% 03/31/2026 | AA+ | 12,264,000 | 12,208,908 |
| 9 FNMA Pool #0CA8441 2.000% 01/01/2051 | AA+ | 11,782,447 | 11,940,971 |
| 10 US Treasury Bond 2.000% 02/15/2050 | AA+ | 11,500,000 | 11,297,852 |

All monetary values stated in US dollars.

A complete listing of holdings is available upon request.

Investment Consultants and Investment Managers as of June 30, 2021

Investment Consultants

Aksia LLC
Wilshire Associates, Inc.

Investment Managers - US Equity

AllianceBernstein, LP
BNY Mellon Asset Management North America
Brown Capital Management, Inc.
Coho Partners Ltd.
Martingale Asset Management, LP
Poma Investment Counsel, LLC
State Street Global Advisors

Investment Managers - Non-US Equity

Arrowstreet Capital, LP
Axiom International Investors, LLC
BlackRock Institutional Trust Co., N.A.
City of London Investment Management Co. Ltd.
Genesis Asset Managers
GlobeFlex Capital, LP
Highclere International Investors
LSV Asset Management
MFS Institutional Advisors, Inc.
State Street Global Advisors
Walter Scott & Partners Ltd.

Investment Manager - Futures

Russell Implementation Services, Inc.

Investment Managers - Global Private Equity

Altas Partners GP, LP
Bridgepoint Advisers Ltd.
Charterhouse Capital Partners
Cinven Capital Management Ltd.
Coller Investment Management Ltd.
Evergreen Pacific Partners
FdG Associates, LLC
Ford Ultimate Management II, LLC
Francisco Partners Management II, LLC
Freeman Spogli Management Co., LP
Goldman Sachs Asset Management, LP
Graham Partners
J.P. Morgan Investment Management, Inc.
Kohlberg & Co.
Leonard Green & Partners
Levine Leichtman Capital Partners, Inc.
Linsalata Capital Partners, LLC
Mason Wells, Inc.
Monomoy Capital Partners
NGP Energy Capital Management, LLC
Oak Hill Capital Partners
Oaktree Capital Management, LP

Odyssey Investment Partners

Primus Venture Partners
Quantum Energy Partners
Silver Lake Partners
Swander Pace Capital Partners
Thomas H. Lee Partners
Transportation Resource Partners
Warburg Pincus

Investment Managers - Global Fixed Income

Aristeia Capital, LLC
BlackRock Institutional Trust Co., N.A.
C.S. McKee, LP
Dodge & Cox
Goldman Sachs Asset Management, LP
J.P. Morgan Investment Management, Inc.
Johnson Investment Counsel, Inc.
Loomis, Sayles & Co.
PGIM Fixed Income a/k/a PGIM, Inc.
Pharo Global Advisors Ltd.
Stone Harbor Investment Partners, LP
Western Asset Management Co.

Investment Managers - Multi-Asset

Strategies

Angelo, Gordon & Co.
Bain Capital, LP
BlackRock Institutional Trust Co., N.A.
GoldenTree Asset Management, LP
Oceanwood Capital Management, LLP
Redwood Capital Management, LLC
Schroder Investment Management N.A. Ltd.
Stark Offshore Management, LLC
Viking Global Investors, LP

Investment Managers - Global Private Credit

Angelo, Gordon & Co.
Bain Capital, LP
BlackRock Institutional Trust Co., N.A.
GoldenTree Asset Management, LP
Oceanwood Capital Management, LLP
One William Street Credit Management, LP
PGIM Fixed Income a/k/a PGIM, Inc.
Pharo Global Advisors Ltd.
Redwood Capital Management, LLC
Schroder Investment Management N.A. Ltd.
Stark Offshore Management, LLC
Viking Global Investors, LP

Investment Managers - Global Real Assets

Almanac Realty Investors, LLC
AMP Capital Investors Ltd.
Beacon Capital Partners, LLC
BlackRock Institutional Trust Co., N.A.
CBRE Global Investors, LLC
Clarion Partners, LLC
Colony Capital, LLC
Deutsche Asset & Wealth Management
Fiera Infrastructure Inc.
Global Infrastructure Partners
Harrison Street Real Estate Capital, L.L.C.
J.P. Morgan Investment Management, Inc.
Industry Fund Management Pty, Ltd.
LA Financial Management, LLC
Mesa West Capital, LLC
Patrizia, AG
The Carlyle Group
UBS Realty Investors, LLC

Investment Managers - Opportunistic & Tactical Investments

Arcmont Asset Management
Barings Global Advisers, Ltd.
Blackstone Group LLC
BlackRock Institutional Trust Co., N.A.
D.E. Shaw & Co., LLC
Francisco Partners Management, LP
GoldenTree Asset Management, LP
HPS Investment Partners, LLC
KKR Credit Advisors (US) LLC
LBC Credit Partners
Oceanwood Capital Management, LLP
Pacific Investment Management Co.

Currency Overlay

P/E Global, LLC

Securities Lending Agent

Goldman Sachs Agency Lending

Custodians

The Bank of New York Mellon
Fifth Third Bank

Master Recordkeeper

BNY Mellon Asset Servicing

Investment Analytics

BNY Mellon Global Risk Solutions

Investments

Summary Schedule of Broker Commissions for US and Non-US Equity Transactions for the Year Ended June 30, 2021

| Broker Name | Fees Paid | # of Shares Traded | Avg. Commission per Share |
|---|--------------|--------------------|---------------------------|
| Instinet, LLC | 145,992 | 132,986,122 | 0.001 |
| J.P. Morgan Securities, LLC | 96,339 | 3,981,014,928 | 0.000 |
| HSBC Securities, Inc. | 93,773 | 622,657,507 | 0.000 |
| Citigroup Global Markets, Inc. | 66,840 | 74,198,289 | 0.001 |
| Credit Agricole Securities, Inc. | 66,467 | 73,209,360 | 0.001 |
| Morgan Stanley & Co., Inc. | 59,309 | 32,454,629 | 0.002 |
| CSLA Americas, LLC | 55,276 | 12,098,257 | 0.005 |
| Jefferies, LLC | 51,955 | 288,984,647 | 0.000 |
| Stifel, Nicolaus & Co., Inc. | 51,015 | 3,134,601 | 0.016 |
| Merrill Lynch Professional Clearing Corp. | 50,927 | 30,154,233 | 0.002 |
| All other brokers | 711,345 | 1,708,282,763 | 0.000 |
| Total US | \$ 1,449,238 | \$ 6,959,175,336 | \$ 0.000 |

Reconciliation to Statement of Fiduciary Net Position

| Asset Class/Strategy | Fair Value | % of Total Fair Value |
|---|-------------------|-----------------------|
| Global Equities | \$ 8,751,893,637 | 48.3 % |
| Global Private Equity | 2,147,918,916 | 11.8 |
| Global Fixed Income | 2,674,655,067 | 14.7 |
| Multi-Asset Strategies | 221,496,023 | 1.2 |
| Global Real Assets | 2,723,556,505 | 15.0 |
| Opportunistic & Tactical Investments | 566,406,161 | 3.1 |
| Global Private Credit | 408,697,444 | 2.3 |
| Cash Equivalents | 653,364,390 | 3.6 |
| Net Portfolio Value | \$ 18,147,988,143 | 100.0 % |
| Investments receivable, securities sold | (93,648,288) | |
| Investments payable, securities purchased | 182,542,558 | |
| Cash and cash equivalents | (959,221,366) | |
| Investments per Statement of Fiduciary Net Position | \$ 17,277,661,047 | |

Statement of Investment Policy

Statement of Investment Policy (effective February 18, 2021)

I. Purpose of Statement of Investment Policy

The purpose of this Statement of Investment Policy (SIP) is to set forth the investment philosophy and objectives of the Retirement Board (Board) for the School Employees Retirement System of Ohio (SERS).

This SIP:

- A. incorporates and is subject to all restrictions and obligations set forth in Chapter 3309 of the Ohio Revised Code;
- B. establishes investment policies and describes the organization and division of responsibilities necessary to implement the Board's philosophy and objectives prudently; and
- C. establishes a framework for making investment decisions, and monitoring investment activity, and promotes effective communication between the Board, Staff, and other involved parties.

This SIP is subject to change at any time by the Board. The Board will review the SIP and revise it periodically to assure it continues to reflect the investment philosophy, objectives and strategies of the Board.

II. Investment Philosophy

The Board recognizes the need to manage SERS assets prudently (the Total Fund) to meet its statutory and fiduciary obligations and to achieve or exceed its objectives. The Board's investment philosophy is grounded in fundamental, prudent investment principles, incorporating modern portfolio theory, risk management and portfolio management practices. These principles are incorporated in the "Investment Beliefs" below. The Board believes it can provide consistent, long-term performance at appropriate levels of risk. By delineating responsibilities and defining policy objectives, this SIP reflects the Board's investment philosophy and governance.

SERS Investment Beliefs:

Financial Markets

- A. Capital markets are not perfectly efficient. Inefficiencies create opportunities that skilled investors could exploit to generate excess returns. Investment Staff will prudently attempt to add value by exploiting such inefficiencies across different assets selectively, although it is not easily achieved.
- B. Markets generally afford higher prospective returns for riskier assets, such as equity or credit risk premiums over the long term. Anomalies could occur in intermittent periods on account of shifting valuations. When valuations are elevated returns tend to be lower.

Investment Process

- C. Strategic asset allocation is the key determinant of risk and return and represents the Board's tolerance for risk in achieving funding goals. It is important to diversify across risk factors and return sources and to be explicit about the role of asset classes.
- D. Risk is the likelihood of loss or less than expected outcomes and is not fully captured by a single metric such as volatility. Risk has many dimensions, subjective and objective, which must be comprehensively assessed and managed in the investment process.
- E. Long-term horizon is an advantage as it enables SERS to tolerate volatility, capture illiquidity and other risk premia, and take advantage of trends and opportunities.
- F. Costs matter. Managing fees and transaction costs adds value to the Fund. Costs must be judged relative to expected value added.

Organizational Skills and Design

- G. Investment success is dependent on good governance, decision process, skill and judgment. Having an experienced and talented staff with appropriate decision authority is an advantage. SERS' Board will delegate authority as appropriate to staff to facilitate execution of the investment process, but retain policy and oversight powers.
- H. Explicit investment objectives, guidelines and collaborative teamwork among staff as well as external partners is essential for success.

Sustainability and Corporate Governance

- I. Good governance of markets and entities comprising the markets improves outcomes for investors. SERS Board and Staff will exercise corporate ownership responsibly and with the best fiduciary interest of members and stakeholders.

Statement of Investment Policy

- J. SERS Board and Staff must be attentive to important environmental, social and governance issues that affect markets and promote its interests in a responsible manner in the best fiduciary interest of members and stakeholders.

III. Investment Objectives

The Investment Objectives of SERS are:

- A. to assure that SERS provides statutorily-mandated retirement benefits;
- B. to earn a net-of-fees total return that equals or exceeds over the long term the Actuarial Assumed Rate approved by the Board; and
- C. to enhance risk-adjusted investment returns of the Total Fund in a prudent and cost-effective manner.

IV. Risk Management

- A. The Board evaluates risk in terms of the probability of not earning the actuarial assumed rate over the long term. Diversification across asset classes, within asset classes, and across investment styles, sectors, and securities will be employed to manage overall portfolio risk and volatility.
- B. SERS utilizes a risk budgeting approach in management of volatility risk of investment portfolios. Active risk of the Total Fund, asset class and individual portfolios and their respective risk contribution to total risk are important factors in the management of the capital allocations to individual asset classes and portfolios. The Total Fund shall be managed within a forecast active risk (tracking error) range of 0% to 3.0% relative to the policy benchmark and within the asset allocation range specified elsewhere in this SIP. Active risk is determined by asset allocation deviations and active security selection decisions as well as underlying market volatility. In times of high market volatility the active risk may exceed 3%. In any event, if the active risk exceeds 3% staff will discuss this with the Board and present appropriate recommendations. The realized tracking error is also expected to be below 3% over rolling three-year periods. Individual asset classes will be managed within the tracking error range specified in the respective asset class implementation guideline. Private asset classes (Private Equity, Private Credit and Real Asset) are excluded at this point from tracking error guidelines.
- C. Other risks, including but not limited to those such as interest rate risk, credit risk, and liquidity risk, will be managed and carefully monitored by Investment Managers and Investment Staff.

V. Implementation Approach

- A. The Board reserves certain responsibilities for itself, while delegating other responsibilities to the Executive Director, the Chief Investment Officer, the Investment Committee, Investment Staff, Investment Managers, Investment Consultants, the Investment Compliance and Governance Officer, and other Investment Service Providers. These responsibilities are described in this SIP.
- B. In fulfilling its fiduciary duties the Board utilizes a competent and qualified Staff to implement the investment program and to manage daily operations.
- C. The Board utilizes Investment Managers or Funds selected by Staff to invest most assets of the Total Fund. The Board recognizes that costs associated with external Investment Managers and Funds are typically higher than costs associated with internal management. However, the Board believes external Investment Managers that act as fiduciaries possess specialized investment expertise and economies of scale, and can generate higher returns on a net-of-fee basis.
- D. The Board requires regular reporting on the Total Fund's investment program to ensure compliance with its SIP.

VI. Investment Organization and Responsibilities

A. Responsibilities of the **Board**

The Board as a fiduciary is responsible for ensuring that Total Fund assets are managed prudently and effectively, in compliance with applicable laws and with this SIP, for the exclusive benefit of participants and beneficiaries.

Responsibilities of the Board include:

1. establishing controls and systems to ensure that Total Fund fiduciaries comply with applicable laws;
2. establishing asset allocation and investment policies for SERS assets;
3. appointing and discharging the Executive Director and Board Investment consultants;
4. confirming or rejecting the Executive Director's proposed appointment of a Chief Investment Officer for SERS;
5. designating the individual as Chief Investment Officer of SERS for purposes of R.C. 3309.043, and then notifying the Ohio Department of Commerce, Division of Securities in writing of the designation as required by the Ohio Revised Code;

Statement of Investment Policy

6. monitoring and reviewing investment performance and policy compliance;
7. requesting, receiving and reviewing reports from Investment Staff, Board consultants and other entities, if applicable;
8. approving an Annual Investment Plan;
9. approving Statement of Investment Policy and changes thereto; and
10. conducting an annual evaluation of the performance of the Board's Investment Consultant.

B. Responsibilities of **Staff**

Staff will administer Total Fund assets as fiduciaries in accordance with applicable federal and state laws and regulations, and in accordance with this SIP, ethics laws, codes of professional conduct (in particular, the CFA Code of Ethics and Standards of Professional Conduct), and other applicable codes and/or regulations. Staff will establish plans, policies and procedures to carry out these duties.

1. The **Executive Director** is responsible for:
 - a. ensuring that reports of the Total Fund's investment performance are presented on a timely basis;
 - b. retaining vendors, consultants and advisors as necessary to assist Staff, and assist the Board in the retention of Investment consultants;
 - c. appointing, discharging and retaining the Chief Investment Officer, and Investment Staff;
 - d. overseeing the investment function,
 - e. executing investment documents when necessary,
 - f. conducting a fiduciary audit of investment operations at least on a seven- to ten-year cycle unless circumstances require an audit to be conducted sooner.
2. The **Chief Investment Officer** is responsible for:
 - a. overseeing the Investment Program and keeping the Executive Director advised;
 - b. conducting periodic asset liability studies with the assistance of investment consultants and recommending asset allocation targets and ranges;
 - c. reviewing the SIP on an annual basis and recommending changes as needed for approval by the Board;
 - d. preparing and presenting the Annual Investment Plan to the Board for approval;
 - e. implementing the Annual Investment Plan;
 - f. investigating, researching and recommending new and emerging investment concepts and strategies, and implementing appropriate strategies in accordance with approved policies and procedures;
 - g. informing Investment Managers, Investment Consultants and others providing investment services to SERS about the requirements of applicable laws and Board policies, and monitoring their compliance with said laws and policies;
 - h. adjusting allocations to Asset Classes, Investment Managers and Funds as needed, subject to any approved allocation ranges;
 - i. approving implementation guidelines for each asset class to establish allocation ranges for sub-strategies, risk parameters and risk limits and providing such guidelines to the Board;
 - j. appointing and discharging Investment Managers and approving investments in or redemptions from Funds subject to conditions and guidelines in Section VII.;
 - k. executing investment documents;
 - l. approving Investment Manager guidelines, changes and additions;
 - m. hiring and supervising Investment Staff;
 - n. monitoring and evaluating the effectiveness of executed securities transactions and reporting annually to the Board regarding the performance of agents who execute securities transactions on behalf of SERS; and
 - o. regularly reporting to the Board on market conditions, the status of the Total Fund and its multi-period performance relative to benchmarks. Performance will be calculated on a gross-of-fees and net-of-fees basis.

Statement of Investment Policy

3. The **Investment Committee** is responsible for:
 - a. ensuring that a procedure is in place defining the Committee's structure and establishing rules for reviewing and approving investments;
 - b. reviewing Investment Manager and Fund due diligence; and
 - c. approving or discharging Investment Managers or Funds.
4. The **Investment Staff** is responsible for:
 - a. regularly reporting the status of the respective asset classes and Total Fund and its multi-period performance to the Chief Investment Officer;
 - b. periodically meeting and speaking with existing or potential Investment Managers to review and assess the quality of their investments and management of assets;
 - c. performing ongoing due diligence to evaluate and monitor Investment Manager capabilities relative to managing Total Fund assets;
 - d. recommending to the Chief Investment Officer implementation guidelines for the respective asset classes to establish allocation ranges for sub-strategies, risk parameters and risk limits; and managing the portfolio to the approved implementation guidelines.
 - e. recommending to the Chief Investment Officer any additions or withdrawals from Investment Manager accounts or Funds, or rebalancing of asset class allocations;
 - f. recommending to the Chief Investment Officer and the Investment Committee the appointment or discharge of Investment Managers and investments in or redemptions from Funds;
 - g. investing assets of the cash equivalents portfolio;
 - h. investigating and researching new and emerging investment concepts and strategies, and recommending those strategies to the Chief Investment Officer;
 - i. preparing periodic reports for the Chief Investment Officer on the performance of agents who execute securities transactions on behalf of SERS; and
 - j. maintaining a list of Ohio-qualified Investment Managers and their investment products.

C. Responsibilities of **Investment Service Providers**

Investment Service Providers who do business or seek to do business with SERS will act in the best interest of SERS when providing services to SERS or the Total Fund. Investment Service Providers will:

1. comply with all applicable federal and state laws and regulations, with this SIP, and with all applicable professional codes and regulations;
2. have established ethics and conflict of interest policies and procedures, and proper internal compliance controls in place as needed;
3. at the earliest opportunity disclose to Investment Staff any actual or potential conflict of interest;
4. as permitted by law disclose any investigation of, or litigation involving, its operations to Investment Staff; and
5. provide annual or other periodic disclosures as required.

The Chief Investment Officer will adopt procedures as appropriate to implement this section.

D. Responsibilities of **Investment Managers**

Investment Managers and Investment Staff managing assets internally are responsible as fiduciaries for investing prudently the Total Fund assets. In addition to those applicable responsibilities described in VI.B., Investment Managers and internal staff members will:

1. manage assets within their control in compliance with all applicable federal and state laws and regulations, including but not limited to applicable ethics requirements, this SIP, contractual obligations, and applicable professional codes of conduct;
2. inform the Chief Investment Officer and Investment Staff of any substantial changes in investment strategy, portfolio structure, asset value, and of any organizational changes, including that of ownership, affiliation, organizational

Statement of Investment Policy

structure, financial condition, or changes in professional personnel staffing in the investment management organization;

3. present in-depth reports to Investment Staff;
4. recommend to Investment Staff changes to investment guidelines the Investment Manager believes would enhance investment performance on a risk adjusted basis; and
5. select such agents for the execution of transactions, at such prices, and at such commission rates as in the good faith judgment of the Investment Manager will be in the best interest of the Total Fund, taking into consideration in the selection of such agents not only the available prices and rates of brokerage commissions, but also other factors relevant to the transaction.

E. Responsibilities of *Investment Consultants*

Investment Consultants will:

1. provide services as fiduciaries and in accordance with all applicable federal and state laws and regulations, including but not limited to applicable ethics requirements; in accordance with this SIP and its written Agreement with SERS; and with all applicable professional codes and/or regulations;
2. provide independent and unbiased research, information and advice to the Board and Staff;
3. assist in the development and amendment of this SIP;
4. assist in the development of investment guidelines as may be requested by Staff;
5. assist in the development of strategic asset allocation targets and ranges;
6. assist in the development of performance measurement standards;
7. monitor and evaluate Investment Manager and Fund performance as appropriate on an ongoing basis;
8. recommend to Staff the retention or discharge of Investment Managers and investment in or redemption from Funds;
9. collaborate with Investment Staff on the due diligence of potential Investment Managers and Funds, and existing Investment Managers and Funds, as requested by Staff;
10. assist in the development of criteria for and procedures to be utilized in the selection of Investment Managers and Funds;
11. provide research, information and advice on investment topics and strategies considered relevant by the Investment Consultant, or when requested by the Board or Investment Staff;
12. provide those services delineated in the Advisory or Consultant Agreement;
13. provide any other advice or services that the Board, Executive Director or Chief Investment Officer determines are necessary, useful or appropriate to fulfill the objectives of this SIP; and
14. regularly report the status of the Total Fund and its multi-period performance to the Board. Performance will be calculated on a net-of-fee basis.

F. Responsibilities of the *Investment Compliance Department*

The Investment Compliance Department is responsible for:

1. monitoring and reporting compliance with this SIP and Board Resolutions;
2. ensuring that investment management agreements and related contracts comply with the SIP;
3. ensuring that Investment Service Providers and Investment Managers comply with Sections VI., herein; and
4. identifying and, in concert with Investment Staff, resolving compliance violations by Investment Managers and Investment Staff relative to their respective investment guidelines. Staff will ensure that those accounts with guideline violations are efficiently and effectively brought back into compliance.

G. Responsibilities of the *Government Relations Office*

The Government Relations Officer is responsible for:

1. promptly voting proxies and related actions in accordance with Board approved procedures, and maintaining detailed records of proxy votes and related actions for the Proxy Review Committee; and

Statement of Investment Policy

2. reporting proxy voting activity to the Board on a quarterly basis and highlighting any emerging issues related to this activity.

H. Responsibilities of the *Investment Accounting Department*

Responsibilities of the Investment Accounting Department related to the Investment Department are defined in Policy FIN4-004 Investment Valuation.

VII. Conditions and Guidelines for Making Investments

A. Conditions

1. In cooperation with legal counsel, Staff will endeavor to ensure that the legal structure of each investment limits potential losses to no more than the amount invested;
2. Investments will be of institutional quality;
3. Investments will require the approval of the Chief Investment Officer and the Investment Committee;
4. Investment documents must be approved by SERS' Legal Department and the Investment Compliance Department;
5. The Investment Committee will develop and implement definitive procedures for approving investments in accordance with this SIP
6. The Chief Investment Officer or the Executive Director must sign the necessary investment documents when making investments.

B. Guidelines

1. Selected Investment Managers and Funds will have proven track records in the strategy;
2. Monthly reporting by the Fund or Investment Manager is preferred, but there shall be quarterly reporting at a minimum;
3. The liquidity of an investment will be prudent, both for the strategy and for the Total Fund;
4. The amount invested with an Investment Manager or in a Fund will be prudent for the strategy;
5. Investment limits established by Board resolution remain in effect unless modified or eliminated by the Board.

VIII. Implementation Strategies

A. Asset Allocation

The Board will conduct an asset and liability study every three- to five-years or sooner, if necessary, in order to establish allocation targets and ranges for asset classes within distinct capital markets. Staff, with the assistance of consultants, will review annually the market outlook and expected returns for asset classes with the Board. If there are significant changes in return assumptions, Staff will conduct an interim review of the Asset Allocation Policy.

In order to identify the investment horizon of SERS and its cash flow requirements, liability considerations will include but not be limited to current and expected future values of the benefits, contributions and total assets.

After giving due consideration to an asset and liability study conducted by the Investment Consultant, which study meets the requirements of this SIP, the Board hereby recognizes and reaffirms the following asset allocation for SERS:

| <u>ASSET CLASS</u> | <u>TARGET</u> | <u>RANGE</u> | <u>Interim Targets FY2021*</u> |
|--|---------------|------------------|--------------------------------|
| Equity | 57% | 47% - 67% | 56 % |
| Global Equities | 45% | 35% - 55% | 45 % |
| Global Private Equity | 12% | 8% - 16% | 11 % |
| Income | 43% | 38% - 48% | 40% |
| Global Bonds | 19% | 12% - 26% | 19 % |
| Global Private Credit | 5% | 3% - 7% | 3 % |
| Global Real Assets | 17% | 14% - 20% | 16 % |
| Cash Equivalents | 2% | 0% - 5% | 2 % |
| Multi-Asset Strategies | NA | NA | 4 % |
| <u>STRATEGY</u> | | | |
| Opportunistic and Tactical Investments | 0% | 0 - 5% | NA |
| Total | 100% | | |

*The board approved interim asset allocation targets for FY2021 with board resolution 2227.

Statement of Investment Policy

B. Derivatives

The Board authorizes the use of derivatives in the Total Fund and authorizes the Chief Investment Officer, with the advice and assistance of the Investment Consultant, to develop and implement derivative instrument derivatives strategies as needed. The Chief Investment Officer will follow the derivatives policy setting forth general guidelines for the use of derivatives.

C. Leverage

The Board authorizes the use of leverage in the Total Fund and authorizes the Chief Investment Officer, with the advice and assistance of the Investment Consultant, to develop and implement certain leverage strategies. The Chief Investment Officer will follow the leverage policy setting forth general guidelines for the use of leverage.

D. Rebalancing

The Total Fund rebalancing is conducted by the Chief Investment Officer within the active risk limit specified in Section IV.(Risk Management) as well as asset class portfolio ranges specified in Section VIII. Within individual asset classes, rebalancing is conducted based on the specific targets and ranges of the sub-strategies specified in the implementation guidelines subject to the overall tracking error limit of each asset class.

E. Currency Hedging

The Board authorizes currency hedging in the Total Fund and authorizes the Chief Investment Officer to develop and implement currency hedging strategies as needed. Currency hedging programs and managers shall be approved by the Investment Committee.

F. Transition Management

The Board authorizes the Executive Director and the Chief Investment Officer to hire Transition Managers as needed.

G. Proxy Voting

The Board authorizes the Proxy Review Committee, which consists of staff members from Executive and Investments, to vote proxies of common stock owned by SERS and to hire proxy services as required to implement this strategy. The Proxy Review Committee will follow a process for voting proxies as described in the Proxy Voting Procedures document.

H. Securities Lending

The Board authorizes Investment Staff to develop and implement a securities lending program which may involve the appointment or discharge of third party securities lending agents by the Executive Director or the Chief Investment Officer. The Board recognizes that while the practice of securities lending can generate meaningful income for the Total Fund, it is not without investment risk. To mitigate investment risk the securities lending program will focus on intrinsic value lending and use conservative collateral reinvestment guidelines as outlined in the securities lending policy. If Staff determines the risk/reward relationship of the program is no longer advantageous for the Total Fund, the program will be discontinued.

I. Opportunistic and Tactical Investments

The Board authorizes Investment Staff to invest up to 5% of Total Assets in Opportunistic and Tactical Investment Strategies. These investments will comply with the Opportunistic and Tactical Investment Policy approved by the Chief Investment Officer.

J. Overlay Program

The Board authorized Investment Staff to invest in an overlay program which includes tactical asset allocation and active currency strategies. The overlay program trades derivatives of the Total Fund's underlying assets and foreign currency exposures to enhance Total Fund's risk adjusted return. The net notional exposures of the tactical asset allocation should be zero and the gross notional exposure of the currency program is limited to 50% of the Non-US Equity portfolio value. The active risk (tracking error) of the overlay positions are governed by the overall tracking error limit for the Total Fund as stated in Section IV. (Risk Management).

K. Investment Managers and Funds

The Board authorizes the Chief Investment Officer and the Investment Committee to approve and discharge Investment Managers and Funds based upon recommendations of Investment Staff or Investment Consultants, as may be appropriate, and discussions with Managers. The Chief Investment Officer is authorized to discharge Investment Managers or Funds and report such actions to the Investment Committee or to present the discharge action to the Investment Committee for approval on a discretionary basis. Allocations to approved Investment Managers and Funds will be determined or adjusted by the Chief Investment Officer in accordance Section VI. Allocations and adjustments are subject to any maximum allocation amounts established by the Board.

Statement of Investment Policy

Investment Managers will adhere to investment guidelines established by Investment Staff, as well as all applicable laws and policies. The Chief Investment Officer is authorized to establish and amend investment guidelines as needed.

It is a goal of the Board to increase the utilization of Ohio-qualified Investment Managers when an Ohio-qualified Investment Manager offers quality, services and safety comparable to other Investment Managers available to the Board, and the use of such Investment Manager is consistent with the Board's fiduciary duties.

The Board will require that a list of Ohio-qualified Investment Managers and their investment products be maintained, and that public notice be given to Ohio-qualified Investment Managers of Investment Manager searches and search criteria.

SERS will give equal consideration to minority owned and controlled firms, and firms owned and controlled by women.

L. Co-investments

The Board authorizes the Chief Investment Officer to approve co-investments in a single investment within a Fund investment previously approved by the Investment Committee. A single co-investment is limited to \$10 million. Such approvals shall be reported to the Investment Committee with supporting investment memoranda. The Chief Investment Officer may present the co-investment to the Investment Committee for approval on a discretionary basis.

M. Collective Investment Funds

To the extent SERS' assets are invested in a group trust described in IRS Revenue Ruling 81-100, the instruments governing such trusts, as they may be amended from time to time, are hereby incorporated by reference and made part of the SIP as if fully set forth herein.

N. Approved Brokers

Brokers (or broker/dealers) who may provide execution of securities transactions for SERS will be evaluated on the basis of financial soundness, underwriting capabilities, research services, execution costs, and any other capabilities necessary in the execution of such transactions. Investment Managers who use such brokers will use their good faith judgment to ensure that said brokers will perform in the best interest of the Total Fund.

It is a goal of the Board to increase its utilization of Ohio-qualified brokers for the execution of domestic equity and domestic fixed income trades when an Ohio-qualified broker offers quality, services, and safety comparable to other brokers available to the Board or its Investment Managers, and the use of such broker is consistent with the Board's fiduciary duties.

SERS will give equal consideration to minority owned and controlled firms, and firms owned and controlled by women.

O. Soft Dollars

SERS allows investment managers to enter into limited soft dollar trading arrangements as governed by the "safe harbor" provision of Section 28(e) of the Securities and Exchange Act of 1934, and guided by the CFA Institute Soft Dollar Standards. SERS does not support any new soft dollar arrangements outside of these noted provisions.

P. Securities Litigation

SERS will follow the securities litigation policy and procedures as approved by the Board in setting out a course of action that best represents the interests of SERS' participants and beneficiaries.

Q. Other

The strategies listed herein are not meant to constrain the Chief Investment Officer from managing the Investment Program in a prudent manner. The Chief Investment Officer may develop additional investment strategies as needed and will discuss such additional strategies with the Board prior to implementation.

IX. Performance

A. Performance Measurement Standard

Performance evaluation for the Total Fund will focus on total return, on an accrual accounting basis, including realized and unrealized capital gains and losses, and income. Valuations are to be made at least on a quarterly basis, and period returns are to be geometrically linked. Private market asset returns may be reported one quarter in arrears. Cash and cash equivalents will be included in the portfolio's return. Performance will be calculated on a gross-of-fee and net-of-fee basis.

B. Performance Benchmark – Total Fund

Performance of the Total Fund relative to benchmarks will be examined monthly, and will be reported for multiple time periods as needed. The Board's Investment Consultant will calculate and report performance net-of-fees on a quarterly basis.

Statement of Investment Policy

The performance benchmark for the Total Fund will be the target-weighted average of the performance benchmark for each asset class and strategy grouping as stated in Section VIII.

In the event of a significant change in policy targets, the Board may approve interim targets for a period to move progressively toward the final target; interim targets may be used for the purpose of calculating the Total Fund policy benchmark in the interim period.

C. Performance Benchmarks – Asset Classes and Strategies

The long-term performance benchmark for each asset class is shown below. Performance benchmarks are determined as appropriate for SERS in cooperation with SERS' Investment Consultant. For purposes of this section, long-term refers to rolling three- to five-year periods. Performance in each asset class should meet or exceed the Benchmark measure.

| ASSET CLASS | BENCHMARK MEASURE |
|--|--|
| Global Equities | <i>US Equity</i> : 55% Russell 3000; |
| | <i>NUSE Developed Market</i> : 30% MSCI World ex-USA Net Total Return Index (USD); |
| | <i>NUSE Emerging Market</i> : 15% MSCI Emerging Markets Net Total Return Index (USD) |
| Global Private Equity | Burgiss All Private Equity benchmark (BAPE)(one quarter in arrears) |
| Global Fixed Income | Bloomberg Barclays Capital US Aggregate Bond Index |
| Global Private Credit | LIBOR + 4.5% |
| Global Real Assets | NCREIF Property Index (one quarter in arrears) |
| Cash Equivalents | Citigroup 30-day T-Bill Index |
| STRATEGY | BENCHMARK MEASURE |
| Opportunistic and Tactical Investments | Bloomberg Barclays Capital US Aggregate Bond Index + 2% |

D. Performance Benchmarks – Individual Investment Managers

Investment Staff will establish performance benchmarks for each Investment Manager based on its respective style.

X. Review and Evaluation

The Board will review and evaluate periodic reports on the investment performance of Total Fund assets. Greater emphasis will be placed on three- to five-year results. The intended frequency for review and evaluation, subject to change by the Board, is as follows:

- A. Monthly – Investment Report including Total Fund fair value, asset allocation, performance of the Total Fund and each asset class, and the Total Fund's compliance with this SIP.
- B. Quarterly – Summary Investment Report presented by the Investment Consultant, including highlights and commentary about market conditions, investment performance, asset composition and characteristics for each asset class, and relevant manager level information.

This policy supersedes the policy adopted August 2, 1985 and all revised policies dated 7/1/20; 9/17/15; 6/18/15; 12/18/14; 5/01/14; 1/01/14; 7/01/13; 1/19/12; 7/21/11; 7/01/10; 2/01/09; 8/01/08; 2/21/08; 10/01/07; 10/20/05; 9/15/00; 10/23/98; 6/19/98; 12/12/97; 7/25/97; 3/21/97; 12/20/96; 11/22/96; 6/21/96; 4/25/96; 9/15/95; 7/28/95; 6/16/95; 3/17/95; 1/20/95; 10/21/94; 5/20/94; 3/06/92; 4/07/89; 9/04/87; 1/09/87.













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ACTUARIAL SECTION

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ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial methods and assumptions were updated to reflect an experience study performed over the five-year period ending June 30, 2020. The experience study reviewed the actuarial assumptions and methods used in the actuarial valuation process. The assumptions fall into two categories: economic assumptions and demographic assumptions.

| Membership | | Retirees | |
|---|--|--|---|
|  146,646 Active Members |  \$3,622 million Annual Payroll |  80,721 Retirees* |  \$1,255 million Annual Benefits |
|  \$24,700 Annual Average Salary |  11.2% Percent Increase in Average Pay |  \$15,547 Group Average Benefit |  75.0 Average Age: Retirees and Beneficiaries |
|  47.7 Average Age: Members |  8.1 Active Average Years of Service |  66.7 Average Age: Disabilities |  72.6 Average Age: Survivors |

June 30, 2021 Data

*Number of Retirees include retirees, beneficiaries, disability, and survivors



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October 28, 2021

Board of Trustees
School Employees Retirement System of Ohio
300 East Broad Street, Suite 100
Columbus, OH 43215-3746

Dear Board Members:

The basic financial objective of the School Employees Retirement System of Ohio (SERS) is to establish and receive contributions which, when expressed in terms of percent of active member payroll, will remain approximately level from generation to generation of members, and which, when combined with present assets and future investment returns, will be sufficient to meet the present and future financial obligations of SERS.

In order to measure progress toward this fundamental objective, SERS has an actuarial valuation performed each year. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the current cost and level percent of payroll amortization of the unfunded actuarial accrued liability over a reasonable period. The valuation performed as of June 30, 2020 indicates that a contribution rate of 12.50% of payroll for 146,646 school employees meets the basic financial objective over a 23-year period.

The statutory employer contribution is 14.00% of payroll. The funding policy establishes ranges of the funded ratio for basic benefits that restrict the allocation of employer contributions to the Health Care Fund. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued liability of promised benefits. The Board seeks to maintain a funded ratio of at least 90% for basic benefits. If the basic benefit funded ratio is less than 70%, the entire 14.00% of the employers' contribution shall be allocated to basic benefits. If the funded ratio is at least 70% but less than 80%, the minimum portion of the employers' contribution allocated to basic benefits is 13.50% of payroll, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is at least 80% but less than 90%, at least 13.25% of the employers' contribution shall be allocated to basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers' contribution that is not needed to fund basic benefits. The funding policy is intended to accelerate the pace at which SERS' basic benefits will achieve a funded ratio equal to 90%.

The funded ratio for basic benefits is 74.46%. Since the funded ratio is at least 70% but less than 80%, at least 13.50% of the employer's 14.00% of payroll contribution must be allocated toward basic benefits. Based on a Board Resolution dated October 21, 2021, the entire employer contribution rate of 14.00% will be allocated to SERS basic benefits.

The actuarial valuation of the pension benefits, the post-retirement death benefit, and the Medicare Part B reimbursement are based upon two factors. The first is financial and participant data as of the valuation date and the second is economic and demographic assumptions.

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Board of Trustees
October 28, 2021
Page 2

The valuation is based upon data concerning active, inactive and retiree members along with pertinent financial information. The data was furnished by the SERS staff and has been certified by the System's auditor. While not verifying the data at the source, we performed tests for consistency and reasonableness.

Economic assumptions address future rates of investment return and inflation; and demographic assumptions relate to future rates of retirement, turnover, death and disability among SERS members and their beneficiaries. We review the data for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuations. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions were adopted by the Board of Trustees and were based upon actual experience of SERS during the 2016-2020 fiscal years. Assets are valued according to a method that fully recognizes expected investment returns and averages unanticipated market return over a four-year period. The assumptions and methods used for financial reporting purposes meet the parameters set by the Actuarial Standards of Practice (ASOPs).

In order to prepare the results in this report we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions. We will continue to monitor the situation and advise the Board in the future of any adjustments that we believe would be appropriate.

The financial condition of health care is different and is being significantly affected by the provisions of Act 290 of 1988 and Act 270 of 2001. Act 290 established a health care surcharge, a program to determine a minimum annual pay for use in calculating employer contribution dollars. Act 270 placed limits on the amount of health care surcharge that can be assessed to each employer and in total.

On the basis of projections of health care fund activity and the surcharge limit established by Act 270, the allocated contributions are sufficient in the long-term to provide for a 20-year solvency period for the health care fund. This result is based on the projected claims and premium contributions for the next 20 years, as is described in the Statement of Funding Policy adopted by the Board. However, total claims are projected to exceed total contributions in future years beyond the 20-year period. It is currently anticipated that future fund amounts will be depleted in 2057, assuming all actuarial assumptions are met and there will be no health care cost increases due to ACA law changes or COVID-19 impact other than anticipated health care trend.

The current benefit structure is outlined in the Plan Summary. There have been no changes to the benefit structure since the last valuation.

We provided information used in the schedules of Actuarial Accrued Liabilities, Active Member Valuation Data, Retirees and Beneficiaries Added To and Removed From Rolls, Analysis of Financial Experience, the Schedule of Funding Progress, and the Schedule of Employer Contributions in the Financial Section.



Board of Trustees
October 28, 2021
Page 3

The main purpose of the Basic Benefits Valuation is to determine the System's funded status and the actuarially determined employer contribution rate as of June 30, 2021 necessary to satisfy the funding objectives of the Board. The Basic Benefit Valuation indicates the School Employees Retirement System of Ohio is expected to continue in sound condition in accordance with actuarial principles of level percent of payroll financing provided all actuarial assumptions for future experience are met. Should future adverse experience develop, SERS may find it necessary to seek benefit reductions and/or contribution rate increases from employers, members, or both. Upcoming detailed projection analyses will provide a more complete indication concerning the future actuarial condition of the System.

Sincerely,

A handwritten signature in blue ink that reads "Todd B. Green".

Todd B. Green ASA, EA, FCA, MAAA
President

A handwritten signature in blue ink that reads "Alisa Bennett".

Alisa Bennett, FSA, EA, FCA, MAAA
President

A handwritten signature in blue ink that reads "John Garrett".

John Garrett, ASA, FCA, MAAA
Principal and Consulting Actuary

PENSION

Summary of Actuarial Assumptions and Methods

The SERS Retirement Board adopted the following actuarial assumptions and methods April 15, 2021, on the recommendation of its actuary. These assumptions were based on an analysis of plan experience for the 5-year period July 1, 2015 through June 30, 2020, and were adopted for use in the valuation as of June 30, 2021.

Funding Method Basic benefits are determined using the entry age normal actuarial cost method. Under this cost method, projected service retirement, termination, disability, and death benefits are determined for all active members. Cost factors, which are developed to produce level annual costs in each year from the age at hire (entry age) to the assumed retirement age, are applied to the projected benefits to determine the “normal cost.” The normal cost is the portion of the total cost of the plan allocated to the current year. The normal cost for contribution refunds is assumed to end in the last year of the assumed eligibility, and is spread over all years of service.

The “actuarial accrued liability” for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for retirees currently receiving benefits, for active members beyond the assumed retirement age, and for inactive members entitled to future benefits, is equal to the present value of the benefits expected to be paid.

The dollar amount of the total actuarial accrued liability in excess of the value of the plan fiduciary net position is called the “unfunded actuarial accrued liability.” Funding requirements under the entry age actuarial cost method are determined by adding the normal cost and the cost to amortize the unfunded liability.

Actuarial assumptions are used to determine the projected benefits and cost factors. The effect of differences between these assumptions and the actual experience of the plan is calculated each year when the annual actuarial valuation is performed. These differences produce either actuarial gains or losses that result in an adjustment of the unfunded liability.

Funding Policy The Board adopted a new funding policy on June 18, 2015, effective with the June 30, 2015 valuation. The funding policy established ranges of the funded ratio for basic benefits that restrict the allocation of employer contributions to the Health Care Fund. The Board seeks to maintain a funded ratio of at least 90% for basic benefits. If the basic benefits funded ratio is less than 70%, the entire 14% of the employers’ contributions shall be allocated to basic benefits. If the funded ratio is at least 70% but less than 80%, the minimum portion of the employers’ contribution allocated to basic benefits is 13.50% of payroll; the remainder may be allocated to the Health Care Fund at the Board’s discretion. If the funded ratio is at least 80% but less than 90%, at least 13.25% of the employers’ contribution shall be allocated to basic benefits; the remainder may be allocated to the Health Care Fund at the Board’s discretion. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers’ contribution that is not needed to fund basic benefits.

Contributions During FY2021, active members and their employers were required to contribute 10% and 14%, respectively, of active member payroll. The Board allocates the employer contribution rate of 14% among basic benefits (pension, Medicare B, and death benefit) and health care in accordance with its funding policy. For the year ended June 30, 2021, the policy required the determination of a rate for basic benefits to cover normal cost and to amortize the unfunded actuarial accrued liabilities over a 23-year period.

| | |
|--------------------|---------|
| Pension Trust Fund | 13.20 % |
| Death Benefit Fund | 0.04 % |
| Medicare B Fund | 0.76 % |
| Health Care Fund | — % |
| | <hr/> |
| | 14.00 % |

The Ohio Revised Code (ORC) also provides for an employer contribution surcharge as an additional source of funding for health care. The surcharge is equal to 14% of the difference between a minimum pay amount and the member’s pay, if below that minimum, it is pro-rated for partial service credit. For FY2021, the minimum pay amount is established at \$23,000. The employer surcharge cap is applied at 2.0% of each employer’s payroll and at 1.5% of total payroll statewide.

Asset Valuation Method Differences between assumed and actual experience (actuarial gains and losses) become part of unfunded actuarial accrued liabilities. When these differences between assumed and actual experience have been observed to be sizeable and persistent, a change is made to the actuarial assumptions.

SERS’ Board adopted a method of valuing investment assets that recognizes a “smoothed” fair value of those assets. The smoothed value of assets recognizes the difference between actual and expected performance for each year in equal amounts over a four-year period.

Economic Assumptions The following economic assumptions were used in the actuarial valuation as of June 30, 2021:

- **Investment Return** Net after all SERS’ expenses, the return on investments is compounded annually at 7.00%.

Actuarial

- **Inflation Rate** The inflation assumption is 2.40% per year. The real rate of return is the portion of total investment return, which is more than the inflation rate. Considering inflation recognition of 2.40%, the 7.00% investment return rate translates to an assumed real rate of return of 4.60%.
- **Benefit increases** Cost-of-living adjustments of 2.00% per year on anniversary of retirement are assumed. On and after April 1, 2018, COLAs for future retirees are delayed for until the fourth anniversary of benefit commencement.
- **Payroll Growth** Salary increases attributable to payroll growth of 1.75% are projected and compounded annually. Additional projected salary increases ranging from 0.0% to 10.00% per year are attributable to seniority and merit. Pay increase assumptions for individual active members are shown for service durations in the table below.

| Years of Service | Merit & Seniority | Salary Inflation | Total |
|------------------|-------------------|------------------|---------|
| 0 | 10.00 % | 3.25 % | 13.58 % |
| 1 | 3.00 | 3.25 | 6.35 |
| 2 | 1.75 | 3.25 | 5.06 |
| 3 | 1.25 | 3.25 | 4.54 |
| 4 | 1.00 | 3.25 | 4.28 |
| 5-9 | 0.75 | 3.25 | 4.02 |
| 10-15 | 0.50 | 3.25 | 3.77 |
| 16-17 | 0.25 | 3.25 | 3.51 |
| 18 & over | — | 3.25 | 3.25 |

Non-Economic Assumptions

- **Retirements** Representative values of the assumed annual rates of service retirement are:

| Annual Rates of Retirement | | | | | | | | |
|----------------------------|---------|--------------------------|--------------------------|----------------------|-----------------------------|-----------------|--------------------------|----------------------|
| Age | Reduced | Eligible prior to 8/1/17 | | | Eligible on or after 8/1/17 | | | |
| | | Reduced (55/25) | First Eligible Unreduced | Subsequent Unreduced | Reduced | Reduced (60/25) | First Eligible Unreduced | Subsequent Unreduced |
| 50 | | | 21 % | 19 % | | | | |
| 55 | | 10 % | 27 | 19 | | | | |
| 57 | | 10 | 27 | 19 | | | 30 % | 19 % |
| 60 | 43 % | 15 | 27 | 19 | | 6 % | 30 | 19 |
| 62 | 43 | 15 | 27 | 19 | 5 % | 6 | 30 | 19 |
| 65 | | | 50 | 33 | 15 | 17 | 30 | 19 |
| 68 | | | 50 | 33 | | | 30 | 18 |
| 70 | | | 50 | 33 | | | 30 | 18 |
| 75 | | | 100 | 100 | | | 100 | 100 |

- **Death-in-Service and Disability Benefits** Separation from active service other than retirement or termination of employment assumed rates are:

| Age | Annual Rates of | | | |
|-----|-----------------|---------|------------|---------|
| | Death* | | Disability | |
| | Male | Female | Male | Female |
| 20 | 0.041 % | 0.013 % | 0.020 % | 0.010 % |
| 25 | 0.041 | 0.012 | 0.039 | 0.010 |
| 30 | 0.052 | 0.019 | 0.071 | 0.028 |
| 35 | 0.068 | 0.030 | 0.127 | 0.059 |
| 40 | 0.096 | 0.047 | 0.214 | 0.106 |
| 45 | 0.143 | 0.072 | 0.313 | 0.180 |
| 50 | 0.218 | 0.107 | 0.414 | 0.300 |
| 55 | 0.320 | 0.157 | 0.530 | 0.450 |
| 60 | 0.466 | 0.238 | 0.590 | 0.450 |
| 65 | 0.682 | 0.380 | 0.533 | 0.300 |
| 70 | 1.025 | 0.627 | 0.300 | 0.200 |
| 74 | 1.461 | 0.937 | 0.300 | 0.200 |

*Pre-retirement mortality is based on the PUB-2010 General Amount Weighted Below Median Employee Mortality Table with fully generational projection using the MP-2020 projection scale. The rates in the table above represent the base rates used.

- **Death after Retirement** These assumptions are used to measure the probabilities of each benefit payment being made after retirement.

SERVICE RETIREMENT: PUB-2010 General Employee Amount Weighted Below Median Healthy Retiree mortality table projected to 2017 with ages set forward 1 year and adjusted 94.20% for males and set forward 2 years and adjusted 81.35% for females. Future improvement in mortality rates is reflected by applying the MP-2020 projection scale generationally.

DISABLED RETIREMENT: PUB-2010 General Disabled Retiree mortality table projected to 2017 with ages set forward 5 years and adjusted 103.3% for males and set forward 3 years and adjusted 106.8% for females. Future improvement in mortality rates is reflected by applying the MP-2020 projection scale generationally.

CONTINGENT SURVIVOR: PUB-2010 General Amount Weighted Below Median Contingent Survivor mortality table projected to 2107 with ages set forward 1 year and adjusted 105.5% for males and adjusted 122.5% for females. Future improvement in mortality rates is reflected by applying the MP-2020 projection scale generationally.

- **Marriage Assumption** Based on prior experience, it is assumed that 80% of retirees are married, with the husband three years older than his wife.

Actuarial Accrued Liabilities

Actuarial accrued liabilities are the present value of plan promises to pay benefits in the future, based upon service already rendered. A liability has been established or accrued because the service has been performed, but the resulting monthly cash benefit may not be payable until years in the future. Actuarial accrued liabilities are the result of complex mathematical calculations performed by the plan's actuaries. The results of the computed actuarial accrued liabilities, using the entry age normal actuarial cost method, are disclosed in the following schedule.

ACTUARIAL ACCRUED LIABILITIES AS OF JUNE 30, 2021

| Present value of: | Pension Benefits | Medicare Part B | Post-Retirement Death Benefit | Total Basic Benefits |
|---|-------------------|-----------------|-------------------------------|----------------------|
| Future benefits to present retirees and survivors | \$ 12,736,738,325 | \$ 217,208,538 | \$ 31,483,557 | \$ 12,985,430,420 |
| Benefits and refunds to present inactive members | 697,582,994 | 20,292,866 | 1,098,698 | 718,974,558 |
| Allowances to present active members | | | | |
| Service | 7,130,252,984 | 137,713,793 | 7,616,764 | 7,275,583,541 |
| Disability | 250,271,688 | 3,898,347 | 339,590 | 254,509,625 |
| Survivor benefits | 168,812,510 | 3,004,139 | — | 171,816,649 |
| Withdrawal | 113,749,800 | 9,270,922 | 421,489 | 123,442,211 |
| Total Active AAL | 7,663,086,982 | 153,887,201 | 8,377,843 | 7,825,352,026 |
| Total AAL | \$ 21,097,408,301 | \$ 391,388,605 | \$ 40,960,098 | \$ 21,529,757,004 |

Active Member Valuation Data

| Actuarial Valuation as of June 30 | Number of Active Members* | Annual Payroll** (\$ in millions) | Average Annual Salary | % Increase in Average Salary |
|-----------------------------------|---------------------------|--------------------------------------|-----------------------|------------------------------|
| 2021 | 146,646 | \$ 3,622 | \$ 24,700 | 11.2 % |
| 2020 | 156,579 | 3,478 | 22,210 | 2.2 |
| 2019 | 159,363 | 3,463 | 21,727 | 3.2 |
| 2018 | 158,343 | 3,332 | 21,045 | 0.7 |
| 2017 | 157,981 | 3,303 | 20,906 | (11.2) |
| 2016 | 124,540 | 2,932 | 23,545 | 1.7 |
| 2015 | 122,855 | 2,845 | 23,161 | 1.8 |
| 2014 | 121,251 | 2,759 | 22,757 | 0.8 |
| 2013 | 121,642 | 2,747 | 22,581 | (1.3) |
| 2012 | 121,811 | 2,788 | 22,889 | 0.6 |

*Beginning with FY2017, members with 0.25 or less years of service during the fiscal year are categorized as active members.

**The annual compensation as of June 30, 2021 reflect imputed salaries.

Pension Retirees and Beneficiaries Added to and Removed from Rolls

| Year Ended | Added to Rolls | | Removed from Rolls | | Rolls at Year End | | % Increase in Annual Allowances | Average Annual Allowances |
|------------|----------------|-------------------|--------------------|-------------------|-------------------|-------------------|---------------------------------|---------------------------|
| | No. | Annual Allowances | No. | Annual Allowances | No. | Annual Allowances | | |
| 2021 | 3,928 | \$ 70,415,860 | 4,058 | \$ 49,823,424 | 80,721 | \$ 1,254,934,762 | 1.7% | \$ 15,547 |
| 2020 | 2,902 | 52,895,232 | 3,075 | 37,508,412 | 80,851 | 1,234,342,326 | 1.3 | 15,267 |
| 2019 | 3,055 | 56,557,169 | 3,363 | 49,537,299 | 81,024 | 1,218,955,506 | 0.6 | 15,044 |
| 2018 | 5,339 | 74,311,354 | 3,164 | 24,391,232 | 81,332 | 1,211,935,637 | 4.3 | 14,901 |
| 2017 | 5,499 | 70,973,748 | 2,622 | (7,420,188) | 79,157 | 1,162,015,515 | 7.2 | 14,680 |
| 2016 | 4,388 | 66,860,652 | 2,480 | 3,607,967 | 76,280 | 1,083,621,579 | 6.2 | 14,206 |
| 2015 | 4,909 | 70,608,680 | 3,142 | 8,777,486 | 74,372 | 1,020,368,894 | 6.5 | 13,720 |
| 2014 | 4,144 | 61,331,002 | 2,310 | 1,060,903 | 72,605 | 958,537,700 | 6.7 | 13,202 |
| 2013 | 4,197 | 62,841,820 | 2,464 | 2,650,786 | 70,771 | 898,267,601 | 7.2 | 12,693 |
| 2012 | 4,137 | 61,519,329 | 2,320 | 1,353,680 | 69,038 | 838,076,567 | 7.7 | 12,139 |

Medicare B Retirees and Beneficiaries Added to and Removed from Rolls⁽¹⁾

| Year Ended | Added to Rolls | | Removed from Rolls | | Rolls at Year End | | % Decrease in Annual Allowances | Average Annual Allowances |
|------------|----------------|-------------------|--------------------|-------------------|-------------------|-------------------|---------------------------------|---------------------------|
| | No. | Annual Allowances | No. | Annual Allowances | No. | Annual Allowances | | |
| 2021 | 1,996 | \$ 1,089,816 | 3,100 | \$ 1,692,600 | 41,360 | \$ 22,582,560 | (2.6)% | \$ 546 |
| 2020 | 2,257 | 1,232,322 | 3,327 | 1,816,542 | 42,464 | 23,185,344 | (2.5) | 546 |
| 2019 | 2,222 | 1,213,212 | 2,333 | 1,273,818 | 43,534 | 23,769,564 | (0.3) | 546 |
| 2018 | 1,752 | 956,592 | 2,848 | 1,555,008 | 43,645 | 23,830,170 | (2.5) | 546 |
| 2017 | 1,853 | 1,011,738 | 3,278 | 1,789,788 | 44,741 | 24,428,586 | (3.1) | 546 |
| 2016 | 2,006 | 1,095,276 | 2,459 | 1,342,614 | 46,166 | 25,206,636 | (1.0) | 546 |
| 2015 | 1,853 | 1,011,738 | 2,532 | 1,382,472 | 46,619 | 25,453,974 | (1.4) | 546 |
| 2014 | 2,225 | 1,214,850 | 2,303 | 1,257,438 | 47,298 | 25,824,708 | (0.2) | 546 |
| 2013 | 2,569 | 1,402,674 | 2,824 | 1,541,904 | 47,376 | 25,867,296 | (0.5) | 546 |

⁽¹⁾ The effort and cost to re-create financial statement information for the previous year was not practical. Additional years will be displayed as they become available.

Short-Term Solvency Test

SERS' financing objective is to pay for pension benefits through contributions that remain approximately level from year to year as a percent of member payroll.

If the contributions are level in concept and soundly executed, SERS will pay all promised benefits when due, which is the ultimate test of financial soundness. Testing for level contribution rates is the long-term test. A short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the present assets (cash and investments) are compared with:

1. Active member contributions on deposit.
2. The liabilities for future benefits to present retired lives.
3. The liabilities for service already rendered by active members.

Under the level percent of payroll financing, liabilities for active member contributions on deposit and the liabilities for future benefits to present retirees and beneficiaries will be fully covered by present assets except in rare circumstances. In addition, liabilities for active member benefits earned or to be earned in the future will be partially covered by the remainder of present assets. Generally, because SERS has been using level cost financing, the funded portion of active member benefits will increase over time.

Actuarial

Short-Term Solvency Test *(\$ in millions)*

| Valuation as of June 30 | Aggregate Accrued Liabilities For | | | Actuarial Value of Assets | Portion of Accrued Liabilities Covered by Reported Asset | | | |
|-------------------------------|---------------------------------------|---|---|---------------------------------|---|--------|-------|--|
| | (1) Active Member Contributions | (2) Retired Members & Beneficiaries | (3) Active Members (Employer Financed Portion) | | (1) | (2) | (3) | |
| PENSION | | | | | | | | |
| 2021 | \$ 2,986 | \$ 13,434 | \$ 4,677 | \$ 15,781 | 100.0 % | 95.2 % | 0.0 % | |
| 2020 | 2,934 | 13,009 | 4,658 | 14,811 | 100.0 | 91.3 | 0.0 | |
| 2019 | 2,842 | 12,666 | 4,582 | 14,268 | 100.0 | 90.2 | 0.0 | |
| 2018 | 2,733 | 12,427 | 4,399 | 13,824 | 100.0 | 89.2 | 0.0 | |
| 2017 | 3,010 | 11,690 | 4,449 | 13,537 | 100.0 | 90.0 | 0.0 | |
| 2016 | 2,914 | 11,689 | 4,728 | 13,015 | 100.0 | 86.4 | 0.0 | |
| 2015 | 2,979 | 11,046 | 4,062 | 12,446 | 100.0 | 86.0 | 0.0 | |
| 2014 | 2,892 | 10,437 | 4,128 | 11,882 | 100.0 | 86.0 | 0.0 | |
| 2013 | 2,860 | 9,796 | 4,196 | 10,988 | 100.0 | 83.0 | 0.0 | |
| 2012 | 2,826 | 9,190 | 4,322 | 10,266 | 100.0 | 81.0 | 0.0 | |
| MEDICARE B | | | | | | | | |
| 2021 | \$ 0 | \$ 238 | \$ 154 | \$ 223 | 100.0 % | 93.7 % | 0.0 % | |
| 2020 | 0 | 236 | 157 | 199 | 100.0 | 84.3 | 0.0 | |
| 2019 | 0 | 244 | 153 | 180 | 100.0 | 73.8 | 0.0 | |
| 2018 | 0 | 251 | 149 | 164 | 100.0 | 65.3 | 0.0 | |
| 2017 | 0 | 251 | 151 | 153 | 100.0 | 61.0 | 0.0 | |
| 2016 | 0 | 251 | 151 | 142 | 100.0 | 56.6 | 0.0 | |
| 2015 | 0 | 252 | 130 | 134 | 100.0 | 53.0 | 0.0 | |
| 2014 | 0 | 259 | 131 | 128 | 100.0 | 49.0 | 0.0 | |
| 2013 | 0 | 255 | 132 | 119 | 100.0 | 47.0 | 0.0 | |
| 2012 | 0 | 251 | 132 | 113 | 100.0 | 45.0 | 0.0 | |
| DEATH BENEFIT | | | | | | | | |
| 2021 | \$ 0 | \$ 33 | \$ 7 | \$ 28 | 100.0 % | 84.8 % | 0.0 % | |
| 2020 | 0 | 31 | 8 | 27 | 100.0 | 87.1 | 0.0 | |
| 2019 | 0 | 31 | 8 | 25 | 100.0 | 80.6 | 0.0 | |
| 2018 | 0 | 31 | 8 | 24 | 100.0 | 77.4 | 0.0 | |
| 2017 | 0 | 30 | 8 | 23 | 100.0 | 76.7 | 0.0 | |
| 2016 | 0 | 30 | 8 | 22 | 100.0 | 73.3 | 0.0 | |
| 2015 | 0 | 28 | 7 | 21 | 100.0 | 75.0 | 0.0 | |
| 2014 | 0 | 27 | 8 | 21 | 100.0 | 76.0 | 0.0 | |
| 2013 | 0 | 27 | 7 | 19 | 100.0 | 73.0 | 0.0 | |
| 2012 | 0 | 26 | 8 | 18 | 100.0 | 70.0 | 0.0 | |

Analysis of Financial Experience

Gains and Losses in Accrued Liabilities Resulting from Differences Between Assumed Experience and Actual Experience in the Pension, Medicare B, and Death Benefit Funds

(\$ in millions)

| Type of Risk Area | 2021 | | | | 2020 | | | | 2019 | | | | 2018 | | | |
|---|-----------|--------|---------------|-----------|-----------|--------|---------------|-----------|------------|--------|---------------|------------|------------|--------|---------------|------------|
| | Pension | Med B | Death Benefit | Total | Pension | Med B | Death Benefit | Total | Pension | Med B | Death Benefit | Total | Pension | Med B | Death Benefit | Total |
| Age and Service Retirements If members retire at older ages, there is a gain. If younger ages, there is a loss. | \$ (99.9) | \$ 2.9 | \$ 0.8 | \$ (96.2) | \$ (98.0) | \$ 3.0 | \$ 1.0 | \$ (94.0) | \$ 3.4 | \$ 3.8 | \$ 0.6 | \$ 7.8 | \$ (211.1) | \$ 1.2 | \$ 0.3 | \$ (209.6) |
| Disability Retirements If disability claims are less than assumed, there is a gain. If more claims, there is a loss. | (5.0) | 0.0 | 0.0 | (5.0) | (3.0) | (0.1) | 0.0 | (3.1) | (9.5) | 0.0 | 0.0 | (9.5) | (14.6) | (0.1) | 0.0 | (14.7) |
| Pre-Retirement Death Benefits If survivor claims are less than assumed, there is a gain. If more claims, there is a loss. | (4.5) | (0.2) | 0.0 | (4.7) | (5.2) | (0.2) | 0.0 | (5.4) | (3.8) | (0.2) | 0.0 | (4.0) | (6.4) | (0.2) | 0.0 | (6.6) |
| Pay Increases If there are smaller pay increases than assumed, there is a gain. If greater increases, there is a loss. | 136.7 | 0.0 | 0.0 | 136.7 | 136.2 | 0.0 | 0.0 | 136.2 | 20.3 | 0.0 | 0.0 | 20.3 | 85.2 | 0.0 | 0.0 | 85.2 |
| Investment Income (Loss) If there is greater investment income than assumed, there is a gain. If less income, there is a loss. | 425.4 | 5.2 | 0.7 | 431.3 | 6.4 | 0.7 | 0.0 | 7.1 | (44.1) | 0.1 | (0.1) | (44.1) | (159.0) | (1.9) | (0.2) | (161.1) |
| Withdrawal From Employment If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, there is a loss. | (108.7) | 1.1 | 0.1 | (107.5) | (104.1) | (0.1) | 0.0 | (104.2) | (105.9) | (0.4) | 0.0 | (106.3) | (124.0) | (0.5) | 0.0 | (124.5) |
| New Members Additional accrued liability attributable to members who entered the plan since the last valuation. | (16.0) | (0.6) | 0.0 | (16.6) | (21.5) | (0.7) | 0.0 | (22.2) | (21.6) | (0.8) | 0.0 | (22.4) | (34.6) | (1.0) | (0.1) | (35.7) |
| Death After Retirement If retired members live longer than assumed, there is a loss. If not as long, there is a gain. | 45.3 | 15.0 | (0.5) | 59.8 | 15.6 | 13.6 | (0.3) | 28.9 | (35.6) | 10.7 | 0.0 | (24.9) | 4.6 | \$10.5 | (0.1) | \$ 15.0 |
| Other Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc. | 186.4 | 2.7 | 0.1 | 189.2 | 59.3 | 2.9 | 0.1 | 62.3 | 75.7 | 2.7 | 0.0 | 78.4 | (0.7) | \$ 5.5 | (0.2) | \$ 4.6 |
| Non-Recurring Items Adjustments for plan amendments, assumption changes, or method changes. | (120.9) | (4.5) | (1.1) | (126.5) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 357.6 | 0.0 | 0.0 | 357.6 |
| Total Gain (Loss) During Year | \$ 438.8 | \$21.6 | \$ 0.1 | \$ 460.5 | \$ (14.3) | \$19.1 | \$ 0.8 | \$ 5.6 | \$ (121.1) | \$15.9 | \$ 0.5 | \$ (104.7) | \$ (103.0) | \$13.5 | \$ (0.3) | \$ (89.8) |

| 2017 | | | | 2016 | | | | 2015 | | | | 2014 | | | | 2013* | 2012* |
|------------|----------|---------------|------------|------------|-----------|---------------|------------|------------|---------|---------------|------------|------------|----------|---------------|------------|------------|------------|
| Pension | Med B | Death Benefit | Total | Pension | Med B | Death Benefit | Total | Pension | Med B | Death Benefit | Total | Pension | Med B | Death Benefit | Total | | |
| \$ (211.0) | \$ (0.5) | \$ (0.3) | \$ (211.8) | \$ (141.6) | \$ 0.7 | \$ (0.1) | \$ (141.0) | \$ (124.4) | \$ 1.5 | \$ (0.1) | \$ (123.0) | \$ (122.0) | \$ (0.5) | \$ (0.1) | \$ (122.6) | \$ (121.9) | \$ (154.8) |
| (37.0) | (0.7) | (0.1) | (37.8) | (49.9) | (0.6) | (0.1) | (50.6) | (52.4) | (0.6) | (0.1) | (53.1) | (55.3) | (0.6) | (0.1) | (56.0) | (53.6) | (47.7) |
| (0.1) | 0.0 | 0.0 | (0.1) | (27.9) | (0.6) | 0.0 | (28.5) | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | (0.2) |
| (69.2) | 0.0 | 0.0 | (69.2) | 70.0 | 0.0 | 0.0 | 70.0 | 53.3 | 0.0 | 0.0 | 53.3 | 103.4 | 0.0 | 0.0 | 103.4 | 219.2 | 178.7 |
| (12.1) | 0.1 | 0.0 | (12.0) | 49.6 | 0.9 | 0.1 | 50.6 | 60.6 | 1.3 | 0.2 | 62.1 | 398.0 | 4.5 | 0.8 | 403.3 | 241.0 | (692.0) |
| 21.7 | 0.2 | 0.0 | 21.9 | 29.2 | 1.1 | 0.1 | 30.4 | 63.2 | 1.7 | 0.2 | 65.1 | 43.0 | 5.1 | 0.2 | 48.3 | 61.1 | 46.5 |
| (45.0) | (2.9) | (0.2) | (48.1) | (42.3) | (1.6) | (0.1) | (44.0) | (46.0) | (1.5) | (0.1) | (47.6) | (26.7) | (1.4) | (0.1) | (28.2) | (35.1) | (29.5) |
| 85.3 | 14.0 | (2.1) | 97.2 | 104.4 | 10.6 | (1.2) | 113.8 | 39.0 | 16.9 | (0.1) | 55.8 | 2.5 | 0.5 | 0.1 | 3.1 | 2.9 | 51.9 |
| (32.1) | 1.8 | 3.6 | (26.7) | (3.3) | 1.0 | 1.6 | (0.7) | (0.8) | 0.4 | 0.3 | (0.1) | (4.6) | 2.3 | 0.2 | (2.1) | 1.9 | (6.2) |
| 998.5 | 0.0 | 0.0 | 998.5 | (643.5) | (22.4) | (2.3) | (668.2) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.8 | 194.7 |
| \$ 699.0 | \$ 12.0 | \$ 0.9 | \$ 711.9 | \$ (655.3) | \$ (10.9) | \$ (2.0) | \$ (668.2) | \$ (7.5) | \$ 19.7 | \$ 0.3 | \$ 12.5 | \$ 338.4 | \$ 9.9 | \$ 1.0 | \$ 349.3 | \$ 343.3 | \$ (458.6) |

*Breakdowns by fund for prior years are not available.

HEALTH CARE

Summary of Actuarial Assumptions and Methods

Governmental Accounting Standards Board (GASB) Statement No. 74 and Statement No. 75 require actuarial valuations of retiree medical and other post-employment benefit plans.

Funding Method The medical and drug benefits of the plan are included in the actuarially calculated contribution rates, which are developed using the entry age normal actuarial cost method with the normal cost rate determined as a level percentage of payroll. GASB requires the discount rate used to value a plan to be based on the likely return of the assets held in trust to pay benefits. The discount rate used in this valuation is 7.00%.

Contributions Gains and losses are reflected in the unfunded accrued liability that is amortized by regular annual contributions as a level percentage of payroll within a 30-year period, on the assumption that payroll will increase 1.75% annually. The assumptions recommended by the actuary are, in the aggregate, reasonably related to the experience under the plan and to reasonable expectations of anticipated experience under the plan. They also meet the parameters for the disclosures under GASB Statement No. 74 and Statement No. 75.

| Year Ended June 30 | Annual Required Contribution (ARC) | Employer Contribution | Retiree Drug Subsidy (RDS) & Other Contribution | Total Contribution | Percentage of ARC Contributed |
|-----------------------|---|--------------------------|--|-----------------------|-------------------------------------|
| | (a) | (b) | (c) | (d) = (b) + (c) | (d) / (a) |
| 2021 | \$ 132,930,967 | \$ 53,533,333 | \$ 20,059,596 | \$ 73,592,929 | 55.4% |
| 2020 | 161,011,895 | 48,187,050 | 32,349,114 | 80,536,164 | 50.0 |
| 2019 | 190,092,589 | 65,877,673 | 16,067,175 | 81,944,848 | 43.1 |
| 2018 | 176,950,184 | 63,539,354 | 36,517,382 | 100,056,736 | 56.5 |
| 2017 | 178,034,717 | 47,672,886 | 17,341,005 | 65,013,891 | 36.5 |
| 2016 | 161,566,234 | 44,855,441 | 32,493,250 | 77,348,691 | 47.9 |
| 2015 | 164,182,107 | 68,904,867 | 20,084,826 | 88,989,693 | 54.2 |
| 2014 | 190,390,431 | 46,097,206 | 29,200,200 | 75,297,406 | 39.5 |
| 2013 | 171,402,038 | 45,489,443 | — | 45,489,443 | 26.5 |
| 2012 | 155,857,785 | 56,476,230 | — | 56,476,230 | 36.2 |

Asset Valuation Method Fair Value

Economic Assumptions The following economic assumptions were used in the actuarial valuation as of June 30, 2021:

- **Investment Return** Net after all plan expenses, the return on investments is compounded annually at 7.00%.
- **Inflation Rate** The inflation assumption is 2.40% per year. The real rate of return is the portion of total investment return, which is more than the inflation rate. Considering inflation recognition of 2.40%, the 7.00% investment return rate translates to an assumed real rate of return of 4.60%.
- **Health Care Cost Trend Rates** Below is a chart detailing trend assumptions:

| Calendar Year | Non-Medicare | Medicare |
|-----------------|--------------|----------|
| 2021 | 6.75 % | 5.13 % |
| 2022 | 6.50 | 5.00 |
| 2023 | 6.25 | 4.75 |
| 2024 | 6.00 | 4.40 |
| 2025 | 5.75 | 4.40 |
| 2026 | 5.50 | 4.40 |
| 2027 | 5.25 | 4.40 |
| 2028 | 5.00 | 4.40 |
| 2028 | 4.75 | 4.40 |
| 2030 and beyond | 4.40 | 4.40 |

Actuarial

Non-Economic Assumptions

- **Age-related morbidity** Per capita costs are adjusted to reflect expected cost changes related to age. The increase to the net incurred claims is assumed to be:

| Participant Age | Annual Increase | |
|-----------------|-----------------|--------------|
| | Medical | Prescription |
| Under 41 | 0.00 % | 0.00 % |
| 41 - 45 | 2.50 | 1.25 |
| 46 - 50 | 2.60 | 1.30 |
| 51 - 55 | 3.20 | 1.60 |
| 56 - 60 | 3.40 | 1.70 |
| 61 - 65 | 3.70 | 1.85 |
| 66 - 70 | 3.20 | 1.60 |
| 71 - 75 | 2.40 | 1.20 |
| 76 - 80 | 1.80 | 0.90 |
| 81 - 85 | 1.30 | 0.65 |
| 86 and over | 0.00 | 0.00 |

- **Anticipated Plan Participation** 25% of male and 25% of female retirees will choose spousal coverage.

| Pre-65 Participants: | | |
|--------------------------------|-------------------------------|--------------------------------|
| Years of Service at Retirement | Service Retiree Participation | Disabled Retiree Participation |
| 1.5 - 4 | — | — % |
| 5 - 9 | — | 25.0 |
| 10 - 14 | 25.0 | 25.0 |
| 15 - 19 | 25.0 | 45.0 |
| 20 - 24 | 45.0 | 50.0 |
| 25 - 29 | 50.0 | 75.0 |
| 30 - 34 | 75.0 | 75.0 |
| 35 and over | 90.0 | 90.0 |

| Post-65 Participants: | | |
|--------------------------------|-------------------------------|--------------------------------|
| Years of Service at Retirement | Service Retiree Participation | Disabled Retiree Participation |
| 1.5 - 4 | — % | — % |
| 5 - 9 | — | 70.0 |
| 10 - 14 | 25.0 | 70.0 |
| 15 - 19 | 45.0 | 70.0 |
| 20 - 24 | 70.0 | 75.0 |
| 25 - 29 | 75.0 | 75.0 |
| 30 - 34 | 85.0 | 85.0 |
| 35 and over | 90.0 | 90.0 |

Actuarial Accrued Liabilities

The results of the computed actuarial accrued liabilities, using the entry age normal actuarial cost method, are disclosed in the following schedule:

| HEALTH CARE FUND ACTUARIAL ACCRUED LIABILITIES AS OF JUNE 30, 2021 | |
|---|-------------------------|
| Present value of benefits payable on account of present retired members and beneficiaries | \$ 533,055,355 |
| Present value of benefits payable on account of active members | 1,185,107,982 |
| Present value of benefits payable on account of deferred vested members | 11,250,342 |
| Total AAL | \$ 1,729,413,679 |

Analysis of Financial Experience

Gains and Losses in Accrued Liabilities Resulting from Differences Between Assumed Experience and Actual Experience in the Health Care Fund

(\$ in millions)

| Type of Risk Area | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014* |
|---|-----------------|-----------------|-----------------|------------------|----------------|-----------------|----------------|-----------------|
| Age and Service Retirements If members retire at older ages or participate in lower numbers, there is a gain. If younger ages or higher participation, there is a loss. | \$ (3.9) | \$ (6.6) | \$ (3.9) | \$ 30.8 | \$ (4.8) | \$ (10.6) | \$ 2.8 | \$ 2.7 |
| Disability Retirements If disability claims are less than assumed, there is a gain. If more claims, there is a loss. | 1.2 | 1.2 | (1.6) | (0.4) | (5.1) | 2.8 | 2.6 | 3.8 |
| Post-Retirement Death Benefits If survivor claims are less than assumed, there is a gain. If more claims, there is a loss. | (1.5) | (1.7) | (2.0) | (1.9) | (2.4) | (1.0) | (0.7) | (1.5) |
| Claims Increases (Including Wrap Plan) If there are smaller claims increases than assumed, there is a gain. If greater increases, there is a loss. | (7.9) | 491.4 | 415.3 | (71.4) | 124.0 | 170.7 | 112.7 | 561.2 |
| Investment Income (Loss) If there is greater investment income than assumed, there is a gain. If less income, there is a loss. | 82.7 | (16.4) | (3.7) | 4.7 | 14.3 | (21.0) | (12.5) | 29.2 |
| Withdrawal From Employment If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, there is a loss. | 19.7 | 17.5 | 17.9 | 39.2 | 3.4 | 29.4 | 30.1 | 51.0 |
| Contribution Shortfall If there are more contributions than the ACR, there is a gain. If less contributions, there is a loss. | (60.9) | (82.6) | (111.0) | (78.9) | (116.0) | (86.4) | (77.2) | (118.1) |
| New Members Additional accrued liability attributable to members who entered the plan since the last valuation. | (12.8) | (18.1) | (20.5) | (21.2) | (39.0) | (24.7) | (18.2) | (31.4) |
| Death after Retirement If retirees live longer than assumed, there is a loss. If not as long, there is a gain. | 14.4 | 16.0 | 16.3 | 35.4 | 18.4 | 12.2 | 14.3 | 24.3 |
| Other Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc. | 42.3 | 55.1 | 63.4 | 9.2 | 31.1 | (2.9) | 9.0 | 19.3 |
| Non-Recurring Items Adjustments for plan amendments, assumption changes, or method changes. | 560.9 | (16.4) | 0.0 | 0.0 | 0.0 | (72.1) | 0.0 | (36.1) |
| Total Gain (Loss) During Year | \$ 634.2 | \$ 439.4 | \$ 370.2 | \$ (54.5) | \$ 23.9 | \$ (3.6) | \$ 62.9 | \$ 504.4 |

*Breakdowns by fund for prior years are not available.

Actuarial

Health Care Solvency Test *(\$ in millions)*

The following table provides the Health Care solvency test for SERS members:

| Valuation as of June 30 | Aggregate Accrued Liabilities For | | | Actuarial Value of Assets | Portion of Accrued Liabilities Covered by Reported Asset | | |
|-------------------------|-----------------------------------|-------------------------------------|--|---------------------------|--|---------|-------|
| | (1) Active Member Contributions | (2) Retired Members & Beneficiaries | (3) Active Members (Employer Financed Portion) | | (1) | (2) | (3) |
| 2021 | \$ 0 | \$ 544 | \$ 745 | \$ 600 | 100.0 % | 100.0 % | 7.6 % |
| 2020 | 0 | 626 | 1,171 | 483 | 100.0 | 77.1 | 0.0 |
| 2019 | 0 | 813 | 1,386 | 464 | 100.0 | 57.0 | 0.0 |
| 2018 | 0 | 968 | 1,557 | 436 | 100.0 | 45.0 | 0.0 |
| 2017 | 0 | 916 | 1,480 | 382 | 100.0 | 41.7 | 0.0 |
| 2016 | 0 | 918 | 1,489 | 370 | 100.0 | 40.3 | 0.0 |
| 2015 | 0 | 979 | 1,507 | 408 | 100.0 | 41.7 | 0.0 |
| 2014 | 0 | 968 | 1,508 | 414 | 100.0 | 42.8 | 0.0 |
| 2013 | 0 | 1,157 | 1,761 | 379 | 100.0 | 32.8 | 0.0 |
| 2012 | 0 | 1,074 | 1,617 | 355 | 100.0 | 33.1 | 0.0 |

Health Care Retirees and Beneficiaries Added to and Removed from Rolls

| Year Ended | Added to Rolls | | Removed from Rolls ⁽¹⁾ | | Rolls at Year-End | | % Increase in Projected Benefits | Average Projected Benefits |
|------------|----------------|--------------------|-----------------------------------|--------------------|-------------------|--------------------|----------------------------------|----------------------------|
| | No. | Projected Benefits | No. | Projected Benefits | No. | Projected Benefits | | |
| 2021 | 2,213 | \$ 7,152,506 | 3,172 | \$ 4,050,170 | 40,897 | \$ 69,028,349 | (0.82)% | \$ 1,688 |
| 2020 | 2,058 | 6,645,569 | 2,749 | 4,275,713 | 41,856 | 69,600,381 | (15.92) | 1,663 |
| 2019 | 1,791 | 6,375,244 | 2,665 | 4,496,857 | 42,547 | 82,778,168 | (8.73) | 1,946 |
| 2018 | 2,383 | 7,833,624 | 2,820 | 5,004,204 | 43,421 | 90,696,175 | (0.94) | 2,089 |
| 2017 | 2,355 | 10,099,985 | 2,774 | 4,834,866 | 43,858 | 91,554,056 | 1.18 | 2,088 |
| 2016 | 2,820 | 10,209,470 | 2,650 | 4,258,016 | 44,277 | 90,484,518 | (0.41) | 2,044 |
| 2015 | 2,329 | 8,897,861 | 2,932 | 4,682,901 | 44,107 | 90,855,858 | 4.42 | 2,060 |
| 2014 | 2,251 | 8,658,731 | 2,873 | 4,834,922 | 44,710 | 87,007,272 | (13.44) | 1,946 |
| 2013 | 2,110 | 8,977,566 | 3,217 | 4,370,993 | 45,332 | 100,514,730 | 10.81 | 2,217 |
| 2012 | 2,073 | 9,280,779 | 3,785 | 5,391,796 | 46,439 | 90,708,513 | 11.49 | 1,953 |

⁽¹⁾The benefits removed from rolls do not include subsidies that were changed due to premium changes, plan election changes, or reductions due to members obtaining Medicare eligibility.

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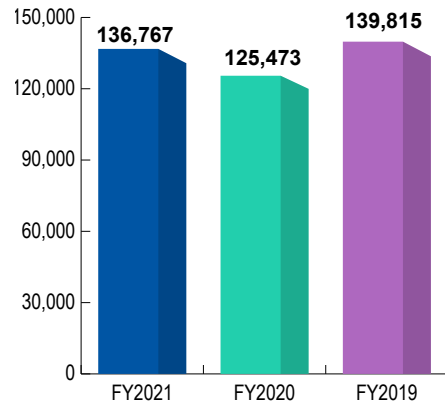
STATISTICAL SECTION

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MEMBER AND EMPLOYER INTERACTION

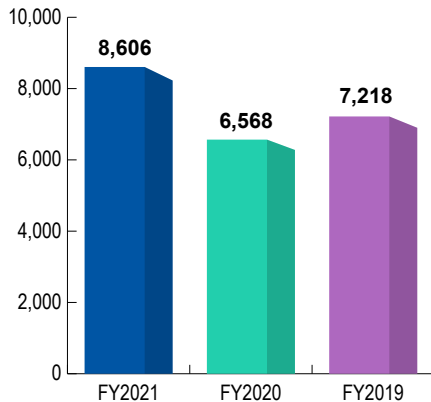
Member

Calls received from members increased by 9.0% in FY2021 over FY2020. The addition of Voice Over Internet Protocol (VOIP) had a significant positive impact on customer service allowing 14 Member Support Team representatives to take live calls from home and the office.



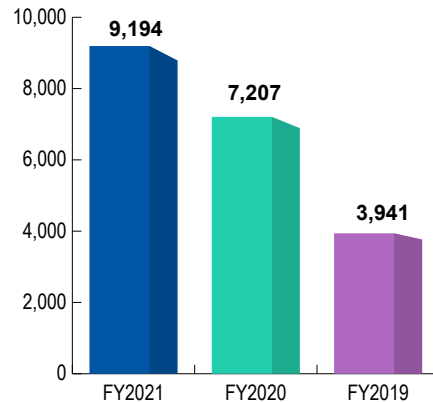
Employer

Calls received from employers increased by 3.1% in FY2021 over FY2020. The highest volume SERS has experienced since FY2018.



Health Care

Health Care team members made 9,194 outbound calls in FY2021. This is 27.6% more calls made than FY2020 and 133.3% more calls than FY2019.



Statistical Section

The objectives of the statistical section are to provide additional historical perspective, context, and relevant details to assist readers in using information in the financial statements, notes to the financial statements, and required supplementary information in order to understand and assess SERS' overall financial condition.

The schedules and graphs beginning on page 99 show financial trend information about the change in SERS' assets for the past 10 years. These schedules provide detailed information about the trends of key sources of asset additions and deductions, which assist in providing a context framing how SERS' financial position has changed over time. The financial trend schedules presented are:

- Fiduciary Net Position by Fund
- Total Fiduciary Net Position
- Changes in Fiduciary Net Position
- Benefit and Refund Deductions from Fiduciary Net Position by Type

The schedules beginning on page 106 show demographic and economic information. This information is designed to assist in understanding the environment in which SERS operates. The demographic and economic information and the operating information presented include:

- Employee and Employer Contribution Rates
- Demographics of New Pension Benefit Recipients
- Demographics of Active and Retired Members Used for Valuation Purposes
- Retired Members by Type of Benefit
- Retirees, Spouses, and Dependents Receiving Health Care Coverage
- Principal Participating Employers
- Average Benefit Payments - New Retirees (Service Only)

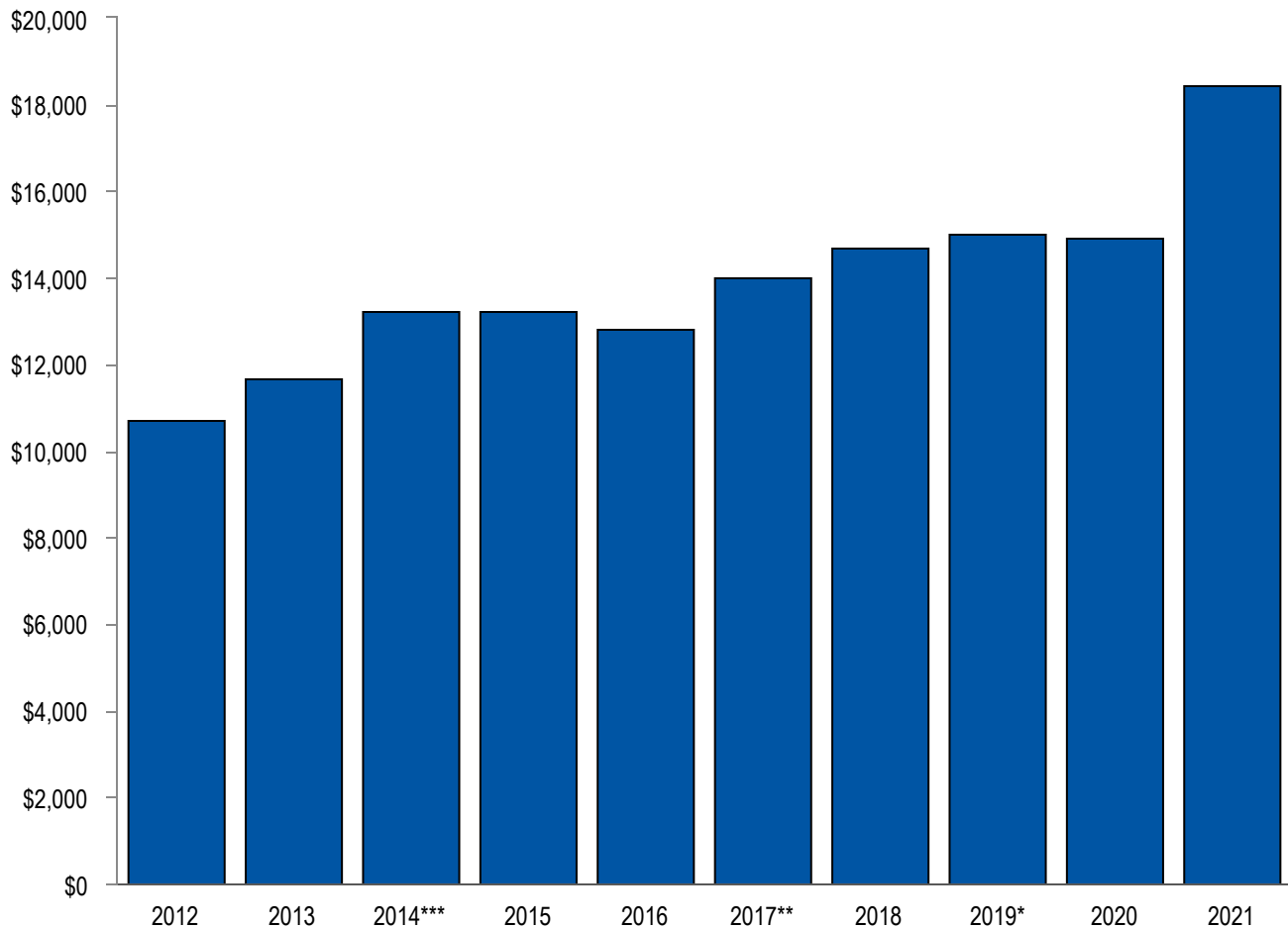
SERS Retirement Plan Schedules

Fiduciary Net Position by Fund

Last 10 years

| June 30 | Pension Trust Fund | Medicare B Fund | Death Benefit Fund | QEBA Fund | Health Care Fund | Total Fund |
|---------|--------------------|-----------------|--------------------|------------|------------------|-------------------|
| 2021 | \$ 17,561,235,177 | \$ 247,954,730 | \$ 30,857,081 | \$ 234,180 | \$ 600,330,188 | \$ 18,440,611,356 |
| 2020 | 14,203,048,325 | 191,058,115 | 25,492,187 | 224,798 | 482,611,478 | 14,902,434,903 |
| 2019* | 14,337,481,691 | 180,963,382 | 25,631,031 | 212,757 | 463,810,679 | 15,008,099,540 |
| 2018 | 14,078,724,296 | 167,266,385 | 24,525,067 | 217,341 | 435,629,637 | 14,706,362,726 |
| 2017** | 13,428,420,143 | 151,581,147 | 23,214,168 | 217,398 | 382,109,560 | 13,985,542,416 |
| 2016 | 12,296,016,233 | 134,623,247 | 20,991,343 | 223,565 | 370,204,515 | 12,822,058,903 |
| 2015 | 12,638,892,425 | 136,580,030 | 21,711,575 | 193,687 | 408,363,598 | 13,205,741,315 |
| 2014*** | 12,652,514,842 | 136,115,160 | 21,992,809 | 165,480 | 413,858,201 | 13,224,646,492 |
| 2013 | 11,160,574,582 | 120,363,782 | 19,543,665 | 144,750 | 379,181,026 | 11,679,807,805 |
| 2012 | 10,201,185,790 | 112,200,252 | 18,272,350 | 107,877 | 355,110,407 | 10,686,876,676 |

Total Fiduciary Net Position (\$ in millions)



* Fiduciary Net Position was restated due to the implementation of GASB 87 during FY2020.

** Fiduciary Net Position was restated due to the implementation of GASB 75 during FY2018.

*** Fiduciary Net Position was restated due to the implementation of GASB 68 during FY2015.

SERS Retirement Plan Schedules

Changes in Fiduciary Net Position

Last 10 fiscal years

| ALL FUNDS COMBINED | 2021 | 2020 | 2019* | 2018 |
|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| ADDITIONS | | | | |
| Employer Contributions | \$ 537,740,460 | \$ 540,093,944 | \$ 530,912,162 | \$ 499,018,574 |
| Employee Contributions | 346,781,820 | 352,343,063 | 345,212,684 | 324,842,074 |
| Other Income | 84,050,104 | 97,386,324 | 87,988,134 | 116,893,434 |
| Total Investment Income (Loss), Net | 4,088,576,284 | 424,249,537 | 853,597,055 | 1,270,190,442 |
| TOTAL ADDITIONS | 5,057,148,668 | 1,414,072,868 | 1,817,710,035 | 2,210,944,524 |
| DEDUCTIONS | | | | |
| Benefits | 1,425,088,081 | 1,412,869,771 | 1,404,572,346 | 1,407,652,952 |
| Refunds and Lump Sum Payments | 72,374,764 | 72,849,117 | 75,639,810 | 59,575,036 |
| Net Transfers to Other Ohio Systems | 5,424,513 | 3,411,620 | 1,311,797 | (6,734,065) |
| Administrative Expenses | 16,084,857 | 30,882,135 | 34,449,268 | 29,630,291 |
| TOTAL DEDUCTIONS | 1,518,972,215 | 1,520,012,643 | 1,515,973,221 | 1,490,124,214 |
| Net Increase (Decrease) | 3,538,176,453 | (105,939,775) | 301,736,814 | 720,820,310 |
| Fiduciary Net Position Held in Trust: | | | | |
| Beginning of Year | 14,902,434,903 | 15,008,374,678 | 14,706,362,726 | 13,985,542,416 |
| End of Year | \$ 18,440,611,356 | \$ 14,902,434,903 | \$ 15,008,099,540 | \$ 14,706,362,726 |

| PENSION TRUST FUND | 2021 | 2020 | 2019* | 2018 |
|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| ADDITIONS | | | | |
| Employer Contributions | \$ 456,195,419 | \$ 461,695,266 | \$ 435,388,804 | \$ 406,953,261 |
| Employee Contributions | 346,781,820 | 352,343,063 | 345,212,684 | 324,842,074 |
| Other Income | — | — | — | — |
| Total Investment Income (Loss), Net | 3,916,448,920 | 407,045,705 | 819,731,217 | 1,226,089,090 |
| TOTAL ADDITIONS | 4,719,426,159 | 1,221,084,034 | 1,600,332,705 | 1,957,884,425 |
| DEDUCTIONS | | | | |
| Pension Benefits | 1,270,735,447 | 1,251,597,154 | 1,232,808,916 | 1,227,807,547 |
| Refunds and Lump Sum Payments | 72,374,764 | 72,849,117 | 75,639,810 | 59,575,036 |
| Net Transfers to Other Ohio Systems | 5,424,513 | 3,411,620 | 1,311,797 | (6,734,065) |
| Administrative Expenses | 12,704,584 | 27,934,647 | 31,814,787 | 26,931,754 |
| TOTAL DEDUCTIONS | 1,361,239,308 | 1,355,792,538 | 1,341,575,310 | 1,307,580,272 |
| Net Increase (Decrease) | 3,358,186,851 | (134,708,504) | 258,757,395 | 650,304,153 |
| Fiduciary Net Position Held in Trust: | | | | |
| Beginning of Year | 14,203,048,325 | 14,337,756,829 | 14,078,724,296 | 13,428,420,143 |
| End of Year | \$ 17,561,235,176 | \$ 14,203,048,325 | \$ 14,337,481,691 | \$ 14,078,724,296 |

| HEALTH CARE FUND | 2021 | 2020 | 2019* | 2018 |
|---------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ADDITIONS | | | | |
| Employer Contributions | \$ 53,533,333 | \$ 48,187,050 | \$ 65,877,673 | \$ 63,539,354 |
| Other Income | 84,050,104 | 97,386,324 | 87,988,134 | 116,893,434 |
| Total Investment Income (Loss), Net | 111,580,200 | 11,139,059 | 22,009,627 | 28,167,652 |
| TOTAL ADDITIONS | 249,163,637 | 156,712,433 | 175,875,434 | 208,600,440 |
| DEDUCTIONS | | | | |
| Health Care Expenses | 128,132,981 | 135,034,624 | 145,127,670 | 152,447,415 |
| Administrative Expenses | 3,311,946 | 2,877,010 | 2,566,722 | 2,632,948 |
| TOTAL DEDUCTIONS | 131,444,927 | 137,911,634 | 147,694,392 | 155,080,363 |
| Net Increase (Decrease) | 117,718,710 | 18,800,799 | 28,181,042 | 53,520,077 |
| Fiduciary Net Position Held in Trust: | | | | |
| Beginning of Year | 482,611,478 | 463,810,679 | 435,629,637 | 382,109,560 |
| End of Year | \$ 600,330,188 | \$ 482,611,478 | \$ 463,810,679 | \$ 435,629,637 |

* Fiduciary Net Position was restated due to the implementation of GASB 87 during FY2020.

** Fiduciary Net Position was restated due to the implementation of GASB 75 during FY2018.

SERS Retirement Plan Schedules

| 2017** | 2016 | 2015 | 2014*** | 2013 | 2012 |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| \$ 515,834,904 | \$ 481,635,982 | \$ 466,904,369 | \$ 451,402,553 | \$ 447,901,887 | \$ 456,375,083 |
| 336,627,658 | 314,325,716 | 303,866,076 | 295,690,550 | 292,958,056 | 296,974,146 |
| 98,190,524 | 113,932,903 | 116,501,166 | 127,867,227 | 135,705,046 | 154,832,793 |
| 1,649,100,073 | 108,787,810 | 452,598,520 | 1,939,269,151 | 1,329,495,903 | (37,922,409) |
| 2,599,753,159 | 1,018,682,411 | 1,339,870,131 | 2,814,229,481 | 2,206,060,892 | 870,259,613 |
| 1,341,304,984 | 1,309,740,098 | 1,248,400,086 | 1,174,068,175 | 1,120,377,591 | 1,083,844,151 |
| 60,692,833 | 70,340,495 | 60,635,651 | 55,668,466 | 48,979,203 | 47,920,393 |
| (3,139,875) | (2,272,514) | 28,139,159 | 7,535,690 | 22,301,557 | 4,976,841 |
| 37,411,704 | 24,556,744 | 21,600,412 | 32,118,463 | 21,471,412 | 21,625,193 |
| 1,436,269,646 | 1,402,364,823 | 1,358,775,308 | 1,269,390,794 | 1,213,129,763 | 1,158,366,578 |
| 1,163,483,513 | (383,682,412) | (18,905,177) | 1,544,838,687 | 992,931,129 | (288,106,965) |
| 12,822,058,903 | 13,205,741,315 | 13,224,646,492 | 11,679,807,805 | 10,686,876,676 | 10,974,983,641 |
| \$ 13,985,542,416 | \$ 12,822,058,903 | \$ 13,205,741,315 | \$ 13,224,646,492 | \$ 11,679,807,805 | \$ 10,686,876,676 |

| 2017** | 2016 | 2015 | 2014*** | 2013 | 2012 |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| \$ 442,032,882 | \$ 412,712,475 | \$ 374,724,343 | \$ 382,098,970 | \$ 380,083,642 | \$ 376,816,938 |
| 336,627,658 | 314,325,716 | 303,866,076 | 295,690,550 | 292,958,056 | 296,974,146 |
| — | — | — | — | — | — |
| 1,593,050,588 | 105,116,336 | 435,966,343 | 1,864,902,017 | 1,277,940,348 | (38,010,415) |
| 2,371,711,128 | 832,154,527 | 1,114,556,762 | 2,542,691,537 | 1,950,982,046 | 635,780,669 |
| 1,146,987,656 | 1,085,216,541 | 1,020,154,456 | 957,757,668 | 901,072,882 | 845,683,445 |
| 60,692,833 | 70,340,495 | 60,635,651 | 55,668,466 | 48,979,203 | 47,920,393 |
| (3,139,875) | (2,272,514) | 28,139,159 | 7,535,690 | 22,301,557 | 4,976,841 |
| 34,766,604 | 21,746,197 | 19,249,913 | 29,789,453 | 19,239,612 | 19,090,214 |
| 1,239,307,218 | 1,175,030,719 | 1,128,179,179 | 1,050,751,277 | 991,593,254 | 917,670,893 |
| 1,132,403,910 | (342,876,192) | (13,622,417) | 1,491,940,260 | 959,388,792 | (281,890,224) |
| 12,296,016,233 | 12,638,892,425 | 12,652,514,842 | 11,160,574,582 | 10,201,185,790 | 10,483,076,014 |
| \$ 13,428,420,143 | \$ 12,296,016,233 | \$ 12,638,892,425 | \$ 12,652,514,842 | \$ 11,160,574,582 | \$ 10,201,185,790 |

| 2017** | 2016 | 2015 | 2014*** | 2013 | 2012 |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| \$ 47,672,886 | \$ 44,855,441 | \$ 68,904,867 | \$ 46,097,206 | \$ 45,489,443 | \$ 56,476,230 |
| 98,190,524 | 113,932,903 | 116,501,166 | 127,867,227 | 135,705,046 | 154,832,793 |
| 35,730,747 | 2,244,300 | 11,142,837 | 50,980,652 | 35,523,491 | 541,940 |
| 181,594,157 | 161,032,644 | 196,548,870 | 224,945,085 | 216,717,980 | 211,850,963 |
| 167,106,908 | 196,445,600 | 199,750,908 | 187,994,468 | 190,468,991 | 209,965,344 |
| 2,582,204 | 2,746,127 | 2,292,565 | 2,273,442 | 2,178,370 | 2,480,956 |
| 169,689,112 | 199,191,727 | 202,043,473 | 190,267,910 | 192,647,361 | 212,446,300 |
| 11,905,045 | (38,159,083) | (5,494,603) | 34,677,175 | 24,070,619 | (595,337) |
| 370,204,515 | 408,363,598 | 413,858,201 | 379,181,026 | 355,110,407 | 355,705,744 |
| \$ 382,109,560 | \$ 370,204,515 | \$ 408,363,598 | \$ 413,858,201 | \$ 379,181,026 | \$ 355,110,407 |

*** Fiduciary Net Position was restated due to the implementation of GASB 68 during FY2015.

SERS Retirement Plan Schedules

Changes in Fiduciary Net Position (continued)

Last 10 fiscal years

| MEDICARE B FUND | 2021 | 2020 | 2019 | 2018 |
|---------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ADDITIONS | | | | |
| Employee Contributions | \$ 26,273,453 | \$ 28,332,747 | \$ 27,319,485 | \$ 26,291,404 |
| Other Income | — | — | — | — |
| Total Investment Income (Loss), Net | 53,543,370 | 5,305,350 | 10,373,511 | 13,784,587 |
| TOTAL ADDITIONS | 79,816,823 | 33,638,097 | 37,692,996 | 40,075,991 |
| DEDUCTIONS | | | | |
| Pension Benefits | 22,913,755 | 23,536,709 | 23,990,512 | 24,384,610 |
| Administrative Expenses | 6,453 | 6,655 | 5,487 | 6,143 |
| TOTAL DEDUCTIONS | 22,920,208 | 23,543,364 | 23,995,999 | 24,390,753 |
| Net Increase (Decrease) | 56,896,615 | 10,094,733 | 13,696,997 | 15,685,238 |
| Fiduciary Net Position Held in Trust: | | | | |
| Beginning of Year | 191,058,115 | 180,963,382 | 167,266,385 | 151,581,147 |
| End of Year | \$ 247,954,730 | \$ 191,058,115 | \$ 180,963,382 | \$ 167,266,385 |

| DEATH BENEFIT FUND | 2021 | 2020 | 2019 | 2018 |
|---------------------------------------|----------------------|----------------------|----------------------|----------------------|
| ADDITIONS | | | | |
| Employer Contributions | \$ 1,382,813 | \$ 1,529,777 | \$ 1,975,200 | \$ 1,858,955 |
| Other Income | — | — | — | — |
| Total Investment Income (Loss), Net | 7,003,576 | 757,342 | 1,479,649 | 2,147,404 |
| TOTAL ADDITIONS | 8,386,389 | 2,287,119 | 3,454,849 | 4,006,359 |
| DEDUCTIONS | | | | |
| Death Benefits | 2,962,198 | 2,364,642 | 2,289,135 | 2,639,464 |
| Administrative Expenses | 59,297 | 61,321 | 59,750 | 55,996 |
| TOTAL DEDUCTIONS | 3,021,495 | 2,425,963 | 2,348,885 | 2,695,460 |
| Net Increase (Decrease) | 5,364,894 | (138,844) | 1,105,964 | 1,310,899 |
| Fiduciary Net Position Held in Trust: | | | | |
| Beginning of Year | 25,492,187 | 25,631,031 | 24,525,067 | 23,214,168 |
| End of Year | \$ 30,857,081 | \$ 25,492,187 | \$ 25,631,031 | \$ 24,525,067 |

| QEBA FUND | 2021 | 2020 | 2019 | 2018 |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|
| ADDITIONS | | | | |
| Employer Contributions | \$ 355,442 | \$ 349,104 | \$ 351,000 | \$ 375,600 |
| Other Income | — | — | — | — |
| Total Investment Income (Loss), Net | 218 | 2,081 | 3,051 | 1,709 |
| TOTAL ADDITIONS | 355,660 | 351,185 | 354,051 | 377,309 |
| DEDUCTIONS | | | | |
| Pension Benefits | 343,700 | 336,642 | 356,113 | 373,916 |
| Administrative Expenses | 2,577 | 2,502 | 2,522 | 3,450 |
| TOTAL DEDUCTIONS | 346,277 | 339,144 | 358,635 | 377,366 |
| Net Increase (Decrease) | 9,383 | 12,041 | (4,584) | (57) |
| Fiduciary Net Position Held in Trust: | | | | |
| Beginning of Year | 224,798 | 212,757 | 217,341 | 217,398 |
| End of Year | \$ 234,181 | \$ 224,798 | \$ 212,757 | \$ 217,341 |

SERS Retirement Plan Schedules

| 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| \$ 24,155,026 | \$ 22,208,623 | \$ 21,499,206 | \$ 21,517,805 | \$ 20,672,040 | \$ 21,450,368 |
| — | — | — | — | — | — |
| 17,527,764 | 1,233,948 | 4,716,932 | 20,040,557 | 13,702,584 | (378,593) |
| 41,682,790 | 23,442,571 | 26,216,138 | 41,558,362 | 34,374,624 | 21,071,775 |
| 24,718,613 | 25,391,810 | 25,743,861 | 25,800,345 | 26,204,777 | 25,715,070 |
| 6,277 | 7,544 | 7,407 | 6,639 | 6,317 | 5,800 |
| 24,724,890 | 25,399,354 | 25,751,268 | 25,806,984 | 26,211,094 | 25,720,870 |
| 16,957,900 | (1,956,783) | 464,870 | 15,751,378 | 8,163,530 | (4,649,095) |
| 134,623,247 | 136,580,030 | 136,115,160 | 120,363,782 | 112,200,252 | 116,849,347 |
| \$ 151,581,147 | \$ 134,623,247 | \$ 136,580,030 | \$ 136,115,160 | \$ 120,363,782 | \$ 112,200,252 |

| 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| \$ 1,608,830 | \$ 1,500,583 | \$ 1,455,553 | \$ 1,412,852 | \$ 1,398,442 | \$ 1,454,763 |
| — | — | — | — | — | — |
| 2,790,208 | 192,842 | 772,277 | 3,345,822 | 2,329,326 | (75,490) |
| 4,399,038 | 1,693,425 | 2,227,830 | 4,758,674 | 3,727,768 | 1,379,273 |
| 2,122,612 | 2,358,518 | 2,460,907 | 2,262,136 | 2,410,943 | 2,309,922 |
| 53,601 | 55,139 | 48,157 | 47,394 | 45,510 | 46,941 |
| 2,176,213 | 2,413,657 | 2,509,064 | 2,309,530 | 2,456,453 | 2,356,863 |
| 2,222,825 | (720,232) | (281,234) | 2,449,144 | 1,271,315 | (977,590) |
| 20,991,343 | 21,711,575 | 21,992,809 | 19,543,665 | 18,272,350 | 19,249,940 |
| \$ 23,214,168 | \$ 20,991,343 | \$ 21,711,575 | \$ 21,992,809 | \$ 19,543,665 | \$ 18,272,350 |

| 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| \$ 365,280 | \$ 358,860 | \$ 320,400 | \$ 275,720 | \$ 258,320 | \$ 176,784 |
| — | — | — | — | — | — |
| 766 | 384 | 131 | 103 | 154 | 149 |
| 366,046 | 359,244 | 320,531 | 275,823 | 258,474 | 176,933 |
| 369,195 | 327,629 | 289,954 | 253,558 | 219,998 | 170,370 |
| 3,018 | 1,737 | 2,370 | 1,535 | 1,603 | 1,282 |
| 372,213 | 329,366 | 292,324 | 255,093 | 221,601 | 171,652 |
| (6,167) | 29,878 | 28,207 | 20,730 | 36,873 | 5,281 |
| 223,565 | 193,687 | 165,480 | 144,750 | 107,877 | 102,596 |
| \$ 217,398 | \$ 223,565 | \$ 193,687 | \$ 165,480 | \$ 144,750 | \$ 107,877 |

SERS Retirement Plan Schedules

Benefit and Refund Deductions from Fiduciary Net Position by Type

Last 10 fiscal years

| PENSION BENEFITS | 2021 | 2020 | 2019 | 2018 |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Service Retirement | \$ 1,139,424,266 | \$ 1,117,724,808 | \$ 1,096,960,216 | \$ 1,091,624,986 |
| Disability Retirement | 90,688,344 | 93,391,297 | 95,725,624 | 97,027,548 |
| Survivor Benefits | 40,622,837 | 40,481,049 | 40,123,076 | 39,155,013 |
| Total Pension Benefits | \$ 1,270,735,447 | \$ 1,251,597,154 | \$ 1,232,808,916 | \$ 1,227,807,547 |
| Refunds | | | | |
| Separation | \$ 72,308,775 | \$ 72,834,422 | \$ 75,630,053 | \$ 59,496,216 |
| Beneficiaries | 65,989 | 14,695 | 9,757 | 78,820 |
| Total Refunds | \$ 72,374,764 | \$ 72,849,117 | \$ 75,639,810 | \$ 59,575,036 |

| MEDICARE B REIMBURSEMENT | 2021 | 2020 | 2019 | 2018 |
|---------------------------------------|----------------------|----------------------|----------------------|----------------------|
| Service Retirement | \$ 20,885,774 | \$ 21,365,130 | \$ 21,734,690 | \$ 22,072,596 |
| Disability Retirement | 1,229,228 | 1,296,750 | 1,327,303 | 1,330,670 |
| Survivor Benefits | 798,753 | 874,829 | 928,519 | 981,344 |
| Total Medicare B Reimbursement | \$ 22,913,755 | \$ 23,536,709 | \$ 23,990,512 | \$ 24,384,610 |

| DEATH BENEFITS | 2021 | 2020 | 2019 | 2018 |
|-----------------------------|---------------------|------------------------|---------------------|---------------------|
| Service | \$ 2,710,522 | \$ 2,169,207.57 | \$ 2,083,499 | \$ 2,377,087 |
| Disability | 251,676 | 195,434.14 | 205,636 | 262,377 |
| Total Death Benefits | \$ 2,962,198 | \$ 2,364,641.71 | \$ 2,289,135 | \$ 2,639,464 |

| HEALTH CARE EXPENSES | 2021 | 2020 | 2019 | 2018 |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Medical | \$ 64,912,611 | \$ 56,771,016 | \$ 72,447,500 | \$ 81,873,185 |
| Prescription | 63,220,370 | 78,263,608 | 72,680,170 | 70,574,230 |
| Other | — | — | — | — |
| Total Health Care Expenses | \$ 128,132,981 | \$ 135,034,624 | \$ 145,127,670 | \$ 152,447,415 |

SERS Retirement Plan Schedules

| 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|-------------------------|-------------------------|-------------------------|-----------------------|-----------------------|-----------------------|
| \$ 1,012,404,884 | \$ 952,950,117 | \$ 891,831,626 | \$ 834,865,512 | \$ 781,736,903 | \$ 731,236,350 |
| 96,312,675 | 94,595,437 | 91,265,121 | 87,804,462 | 85,514,086 | 81,219,934 |
| 38,270,097 | 37,670,987 | 37,057,709 | 35,087,694 | 33,821,893 | 33,227,161 |
| \$ 1,146,987,656 | \$ 1,085,216,541 | \$ 1,020,154,456 | \$ 957,757,668 | \$ 901,072,882 | \$ 845,683,445 |
| | | | | | |
| 59,541,576 | 68,857,916 | 59,875,564 | 55,018,577 | 48,392,410 | 47,272,246 |
| 1,151,257 | 1,482,579 | 760,087 | 649,889 | 586,793 | 648,147 |
| \$ 60,692,833 | \$ 70,340,495 | \$ 60,635,651 | \$ 55,668,466 | \$ 48,979,203 | \$ 47,920,393 |

| 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| \$ 22,336,187 | \$ 22,855,321 | \$ 23,105,680 | \$ 23,099,058 | \$ 23,460,682 | \$ 23,006,643 |
| 1,336,790 | 1,413,048 | 1,428,700 | 1,436,026 | 1,425,456 | 1,405,443 |
| 1,045,636 | 1,123,441 | 1,209,481 | 1,265,261 | 1,318,639 | 1,302,984 |
| \$ 24,718,613 | \$ 25,391,810 | \$ 25,743,861 | \$ 25,800,345 | \$ 26,204,777 | \$ 25,715,070 |

| 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| \$ 1,939,771 | \$ 2,133,523 | \$ 2,256,060 | \$ 2,052,993 | \$ 2,197,804 | \$ 2,101,093 |
| 182,841 | 224,995 | 204,847 | 209,143 | 213,139 | 208,829 |
| \$ 2,122,612 | \$ 2,358,518 | \$ 2,460,907 | \$ 2,262,136 | \$ 2,410,943 | \$ 2,309,922 |

| 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| \$ 87,845,475 | \$ 108,821,435 | \$ 117,389,938 | \$ 109,622,130 | \$ 110,990,977 | \$ 112,818,198 |
| 79,261,433 | 86,997,168 | 80,843,448 | 76,945,975 | 78,135,361 | 94,731,407 |
| 0 | 626,997 | 1,517,522 | 1,426,363 | 1,342,653 | 2,415,739 |
| \$ 167,106,908 | \$ 196,445,600 | \$ 199,750,908 | \$ 187,994,468 | \$ 190,468,991 | \$ 209,965,344 |

Defined Benefit Program Schedules

Employee and Employer Contribution Rates

Last 10 fiscal years

| Fiscal Year | Employee Rate | Employer Rate | | | | Total |
|-------------|---------------|---------------|------------|---------------|-------------|---------|
| | | Pension | Medicare B | Death Benefit | Health Care | |
| 2021 | 10.00 % | 13.20 % | 0.76 % | 0.04 % | 0.00 % | 14.00 % |
| 2020 | 10.00 | 13.15 | 0.81 | 0.04 | 0.00 | 14.00 |
| 2019 | 10.00 | 12.61 | 0.83 | 0.06 | 0.50 | 14.00 |
| 2018 | 10.00 | 12.59 | 0.01 | 0.06 | 0.50 | 14.00 |
| 2017 | 10.00 | 13.20 | 0.75 | 0.05 | 0.00 | 14.00 |
| 2016 | 10.00 | 13.21 | 0.74 | 0.05 | 0.00 | 14.00 |
| 2015 | 10.00 | 12.39 | 0.74 | 0.05 | 0.82 | 14.00 |
| 2014 | 10.00 | 13.05 | 0.76 | 0.05 | 0.14 | 14.00 |
| 2013 | 10.00 | 13.05 | 0.74 | 0.05 | 0.16 | 14.00 |
| 2012 | 10.00 | 12.65 | 0.75 | 0.05 | 0.55 | 14.00 |

Demographics of New Pension Benefit Recipients

Last 10 fiscal years

Average Service Benefit

| Year Ended June 30 | Service Credit | Monthly Amount | Age | Final Average Salary |
|--------------------|----------------|----------------|---------|----------------------|
| 2021 | 24.5 \$ | 1,536 | 65.5 \$ | 36,972 |
| 2020 | 24.8 | 1,573 | 65.0 \$ | 37,169 |
| 2019 | 25.8 | 1,659 | 65.1 | 37,047 |
| 2018 | 21.2 | 1,281 | 63.9 | 34,090 |
| 2017 | 19.8 | 1,078 | 63.4 | 30,256 |
| 2016 | 21.4 | 1,224 | 63.4 | 31,785 |
| 2015 | 21.6 | 1,254 | 63.2 | 32,263 |
| 2014 | 21.7 | 1,228 | 63.4 | 31,617 |
| 2013 | 21.7 | 1,236 | 63.2 | 31,558 |
| 2012 | 22.9 | 1,246 | 63.6 | 31,600 |

Average Disability Benefit

| Year Ended June 30 | Service Credit | Monthly Amount | Age | Final Average Salary |
|--------------------|----------------|----------------|---------|----------------------|
| 2021 | 18.2 \$ | 1,398 | 58.1 \$ | 34,290 |
| 2020 | 17.1 | 1,294 | 57.2 | 32,094 |
| 2019 | 17.2 | 1,348 | 55.4 | 33,255 |
| 2018 | 17.4 | 1,315 | 55.5 | 31,736 |
| 2017 | 17.0 | 1,245 | 56.6 | 30,570 |
| 2016 | 16.5 | 1,296 | 55.9 | 31,118 |
| 2015 | 15.9 | 1,291 | 54.1 | 31,091 |
| 2014 | 15.8 | 1,250 | 54.5 | 29,965 |
| 2013 | 16.1 | 1,254 | 54.0 | 29,484 |
| 2012 | 16.0 | 1,249 | 54.9 | 29,071 |

Defined Benefit Program Schedules

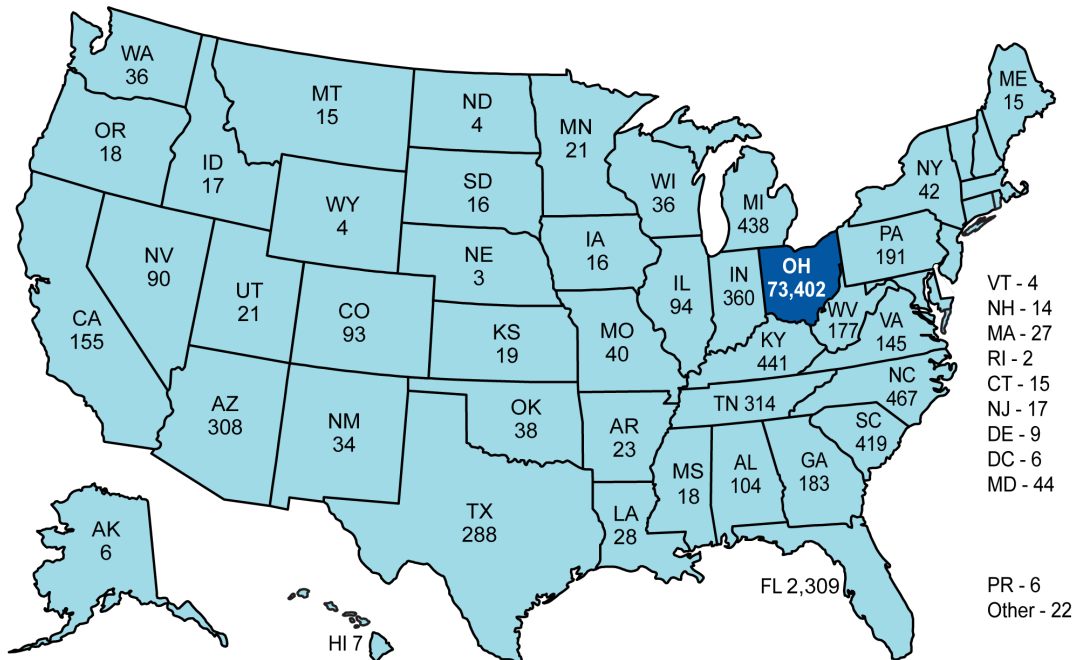
Demographics of Active and Retired Members Used for Valuation Purposes

Fiscal Year 2021

| | Active Members | | | Percentage of Distribution | | |
|-------------|----------------|--------|---------|----------------------------|--------|-------|
| | Male | Female | Total | Male | Female | Total |
| Under 20 | 1,096 | 1,045 | 2,141 | 1 % | 1 % | 2 % |
| 20 to 29 | 8,041 | 10,366 | 18,407 | 5 | 7 | 12 |
| 30 to 39 | 7,906 | 14,773 | 22,679 | 5 | 10 | 15 |
| 40 to 49 | 9,842 | 22,577 | 32,419 | 7 | 15 | 22 |
| 50 to 54 | 5,430 | 13,953 | 19,383 | 4 | 10 | 14 |
| 55 to 59 | 5,420 | 15,378 | 20,798 | 4 | 10 | 14 |
| 60 to 64 | 5,090 | 13,611 | 18,701 | 3 | 9 | 12 |
| 65 to 69 | 2,659 | 5,198 | 7,857 | 2 | 4 | 6 |
| 70 and over | 1,784 | 2,477 | 4,261 | 1 | 2 | 3 |
| | 47,268 | 99,378 | 146,646 | 32 % | 68 % | 100 % |

| | All Benefit Recipients | | | Percentage of Distribution | | |
|--------------|------------------------|--------|--------|----------------------------|--------|-------|
| | Male | Female | Total | Male | Female | Total |
| Under 55 | 373 | 643 | 1,016 | — % | 1 % | 1 % |
| 55 to 59 | 877 | 1,308 | 2,185 | 1 | 2 | 3 |
| 60 to 64 | 2,303 | 5,508 | 7,811 | 4 | 7 | 11 |
| 65 to 69 | 4,394 | 12,480 | 16,874 | 5 | 15 | 20 |
| 70 to 74 | 4,747 | 12,887 | 17,634 | 6 | 16 | 22 |
| 75 to 79 | 3,453 | 9,682 | 13,135 | 4 | 12 | 16 |
| 80 to 84 | 2,578 | 7,858 | 10,436 | 3 | 10 | 13 |
| 85 to 89 | 1,568 | 5,415 | 6,983 | 2 | 7 | 9 |
| 90 to 94 | 729 | 2,810 | 3,539 | 1 | 3 | 4 |
| 95 to 99 | 163 | 809 | 972 | — | 1 | 1 |
| 100 and over | 11 | 125 | 136 | — | — | — |
| | 21,196 | 59,525 | 80,721 | 26 % | 74 % | 100 % |

All Benefit Recipients by State



Defined Benefit Program Schedules

Retired Members by Type of Benefit

| Amount of Monthly Benefit (\$) | Total | Service | Disability | Survivor |
|--------------------------------|---------------|---------------|--------------|--------------|
| 1 - 250 | 9,701 | 8,987 | 30 | 684 |
| 251 - 500 | 11,053 | 9,704 | 285 | 1,064 |
| 501 - 750 | 10,776 | 9,403 | 559 | 814 |
| 751 - 1,000 | 9,671 | 8,252 | 818 | 601 |
| 1001 - 1,500 | 14,347 | 12,540 | 1,261 | 546 |
| 1501 - 2,000 | 8,855 | 7,829 | 796 | 230 |
| over 2,000 | 16,318 | 14,942 | 1,119 | 257 |
| | 80,721 | 71,657 | 4,868 | 4,196 |
| Average Monthly Benefit \$ | | 1,313 \$ | 1,502 \$ | 794 |
| Average Age | | 74.6 | 66.2 | 76.8 |

Retirees, Spouses, and Dependents Receiving Health Care Coverage

| Attained Age | Number of | | Total Number |
|--------------|---------------|---------------|---------------|
| | Males | Females | |
| Under 30 | 98 | 105 | 203 |
| 30 - 39 | 0 | 6 | 6 |
| 40 - 49 | 22 | 15 | 37 |
| 50 - 59 | 399 | 550 | 949 |
| 60 - 64 | 1,075 | 1,889 | 2,964 |
| 65 - 69 | 2,254 | 4,843 | 7,097 |
| 70 - 74 | 2,457 | 5,768 | 8,225 |
| 75 - 79 | 1,955 | 5,154 | 7,109 |
| 80 - 84 | 1,797 | 4,708 | 6,505 |
| 85 - 89 | 1,164 | 3,304 | 4,468 |
| 90 - 94 | 521 | 1,889 | 2,410 |
| 95 - 99 | 116 | 675 | 791 |
| 100 and over | 13 | 120 | 133 |
| | 11,871 | 29,026 | 40,897 |

Defined Benefit Program Schedules

Principal Participating Employers

Current fiscal year and nine years ago

| | Fiscal Year 2021 | | | Fiscal Year 2012 | | |
|---|--------------------------|------|----------------------------|--------------------------|------|----------------------------|
| | Covered Employee Members | Rank | Percentage of Total System | Covered Employee Members | Rank | Percentage of Total System |
| Columbus City Schools | 3,594 | 1 | 2.45 % | 3,564 | 1 | 2.93 % |
| Cincinnati Public Schools | 3,350 | 2 | 2.28 | 2,649 | 3 | 2.17 |
| Cleveland Metropolitan School District | 2,622 | 3 | 1.80 | 2,684 | 2 | 2.20 |
| Toledo City Schools | 1,671 | 4 | 1.14 | 1,344 | 6 | 1.10 |
| Educational Service Center Council of Governments | 1,653 | 5 | 1.13 | — | — | — |
| Akron Public Schools | 1,553 | 6 | 1.06 | 1,507 | 5 | 1.24 |
| Olentangy Local Schools | 1,316 | 7 | 0.90 | — | — | — |
| South-Western City Schools | 1,237 | 8 | 0.84 | 1,110 | 8 | 0.91 |
| Lakota Local Schools | 1,164 | 9 | 0.79 | — | — | — |
| Dayton City Schools | 1,048 | 10 | 0.71 | 1,130 | 7 | 0.93 |
| University of Akron | — | — | — | 2,413 | 4 | 1.98 |
| Parma City Schools | — | — | — | 985 | 10 | 0.81 |
| Columbus State Community College | — | — | — | 1,053 | 9 | 0.86 |
| All Other | 127,438 | | 86.90 | 103,372 | | 84.87 |
| Total | 146,646 | | 100.00 % | 121,811 | | 100.00 % |

In FY2021 "All Other" consisted of:

| | Covered Employee Members | Number of School Districts |
|-----------------------------|--------------------------|----------------------------|
| City School Districts | 52,222 | 184 |
| Local School Districts | 46,867 | 369 |
| Educational Service Centers | 8,101 | 51 |
| Exempted Village Districts | 6,801 | 49 |
| Community Schools | 4,770 | 305 |
| Higher Education | 4,139 | 15 |
| Vocational Schools | 3,102 | 49 |
| Other | 1,436 | 21 |

Defined Benefit Program Schedules

Average Benefit Payments - New Retirees (Service Only)

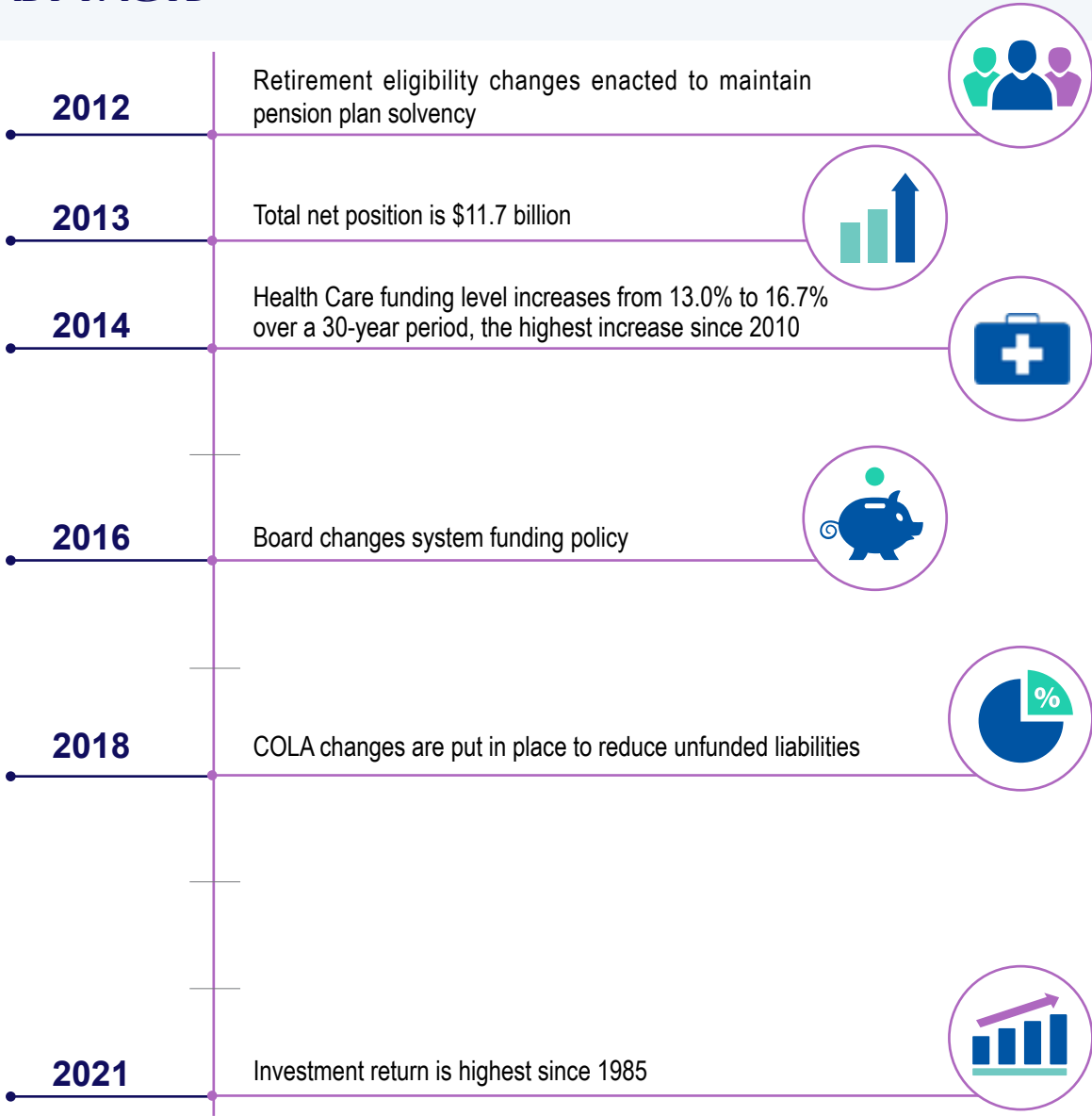
Last 10 fiscal years

| Retirement Effective Dates | Years of Credited Service | | | | | |
|---------------------------------|---------------------------|--------|--------|----------|----------|----------|
| | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ |
| Period 7/1/20 to 6/30/21 | | | | | | |
| Average Monthly Benefit | \$ 497 | \$ 460 | \$ 744 | \$ 1,014 | \$ 1,521 | \$ 2,723 |
| Monthly Final Average Salary | 4,425 | 2,311 | 2,518 | 2,650 | 3,050 | 3,967 |
| Number of Retirees | 4 | 456 | 433 | 542 | 634 | 952 |
| Period 7/1/19 to 6/30/20 | | | | | | |
| Average Monthly Benefit | \$ 339 | \$ 485 | \$ 712 | \$ 997 | \$ 1,532 | \$ 2,627 |
| Monthly Final Average Salary | 2,241 | 2,354 | 2,484 | 2,643 | 3,034 | 3,869 |
| Number of Retirees | 3 | 386 | 345 | 388 | 442 | 914 |
| Period 7/1/18 to 6/30/19 | | | | | | |
| Average Monthly Benefit | \$ 414 | \$ 478 | \$ 747 | \$ 1,040 | \$ 1,519 | \$ 2,551 |
| Monthly Final Average Salary | 3,351 | 2,240 | 2,402 | 2,544 | 2,965 | 3,770 |
| Number of Retirees | 2 | 279 | 265 | 216 | 444 | 863 |
| Period 7/1/17 to 6/30/18 | | | | | | |
| Average Monthly Benefit | \$ 243 | \$ 497 | \$ 880 | \$ 1,241 | \$ 1,555 | \$ 2,537 |
| Monthly Final Average Salary | 1,734 | 2,151 | 2,700 | 2,950 | 3,027 | 3,741 |
| Number of Retirees | 500 | 668 | 949 | 977 | 656 | 1,021 |
| Period 7/1/16 to 6/30/17 | | | | | | |
| Average Monthly Benefit | \$ 212 | \$ 488 | \$ 767 | \$ 1,044 | \$ 1,487 | \$ 2,439 |
| Monthly Final Average Salary | 1,532 | 2,084 | 2,360 | 2,498 | 2,937 | 3,654 |
| Number of Retirees | 715 | 847 | 951 | 948 | 692 | 857 |
| Period 7/1/15 to 6/30/16 | | | | | | |
| Average Monthly Benefit | \$ 241 | \$ 510 | \$ 762 | \$ 1,110 | \$ 1,456 | \$ 2,392 |
| Monthly Final Average Salary | 1,608 | 2,104 | 2,341 | 2,644 | 2,869 | 3,582 |
| Number of Retirees | 535 | 671 | 615 | 630 | 769 | 1,013 |
| Period 7/1/14 to 6/30/15 | | | | | | |
| Average Monthly Benefit | \$ 247 | \$ 511 | \$ 804 | \$ 1,123 | \$ 1,459 | \$ 2,404 |
| Monthly Final Average Salary | 1,587 | 2,157 | 2,479 | 2,675 | 2,875 | 3,576 |
| Number of Retirees | 515 | 636 | 535 | 505 | 764 | 994 |
| Period 7/1/13 to 6/30/14 | | | | | | |
| Average Monthly Benefit | \$ 239 | \$ 506 | \$ 756 | \$ 1,053 | \$ 1,390 | \$ 2,391 |
| Monthly Final Average Salary | 1,554 | 2,130 | 2,357 | 2,511 | 2,785 | 3,586 |
| Number of Retirees | 468 | 622 | 489 | 527 | 736 | 957 |
| Period 7/1/12 to 6/30/13 | | | | | | |
| Average Monthly Benefit | \$ 227 | \$ 483 | \$ 732 | \$ 1,086 | \$ 1,403 | \$ 2,815 |
| Monthly Final Average Salary | 1,540 | 2,069 | 2,270 | 2,585 | 2,830 | 3,224 |
| Number of Retirees | 483 | 639 | 437 | 538 | 744 | 965 |
| Period 7/1/11 to 6/30/12 | | | | | | |
| Average Monthly Benefit | \$ 237 | \$ 475 | \$ 759 | \$ 1,066 | \$ 1,376 | \$ 2,439 |
| Monthly Final Average Salary | 1,555 | 2,029 | 2,342 | 2,548 | 2,863 | 3,136 |
| Number of Retirees | 468 | 557 | 478 | 498 | 643 | 1,089 |

PLAN SUMMARY

| | |
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FAST FACTS



Introduction

Established by state law in 1937, SERS is a statewide defined benefit plan that provides retirement, disability, and survivor benefits to non-teaching employees of Ohio's public, vocational, technical, and community schools; community colleges; and the University of Akron.

The Retirement Board is responsible for the general administration and management of the Retirement System. The Board comprises nine members: four elected employee members; two elected retiree members; and three appointed investment expert members. One investment expert is appointed by the Governor, a second one by the State Treasurer, and the third one jointly by the Speaker of the House and President of the Senate of the General Assembly.

The day-to-day operations are administered by a professional staff led by the Executive Director.

The plan summary in effect at June 30, 2021, is described below.

COVERED EMPLOYEES

All non-teaching employees of Ohio's public, vocational, technical, and community schools; community colleges; and the University of Akron are required to be members unless their position permits exemption from membership, optional membership, or the position is excluded from membership.

Compulsory or Mandatory Coverage

Compulsory coverage is required for any employee who:

- Is employed in a position for which the person is not required to have a registration certificate or license issued pursuant to sections 3319.22 to 3319.31 of the Revised Code; or
- Performs a service common to the normal daily operation of an educational unit even though the person is employed and paid by one who has contracted with the school to perform the service.

Exemption from Coverage

The following individuals may choose exemption from coverage by filing a written application with the employer within the first month after being employed:

- A student who is not a member at the time of the student's employment and who is employed by the school, college, or university in which the student is enrolled and regularly attending classes;
- An emergency employee serving on a temporary basis in case of fire, snow, earthquake, flood, or other similar emergency; or
- An individual employed in a program established under the Workforce Innovation and Opportunity Act.

Optional Coverage

A school or governing board member may choose to become a member by making application within thirty (30) days of taking office. A school board member is a member of a city, local, exempted village, or joint vocational school district board of education, and a governing board member is a member of an educational service center governing board.

Exclusion from Coverage

The following employees are excluded from SERS coverage:

- Any person having a license issued by the Ohio Department of Education (ODE) and employed in a public school in this state in an educational position, as determined by the ODE, under programs under federal law and financed in whole or in part from federal funds, but for which no licensure requirements for the position can be made under the provisions of such federal law.
- Any person who participates in an alternative retirement plan (ARP) established by a college or university.
- University of Akron police officers who are covered by the Ohio Public Employees Retirement System (OPERS).
- Nonteaching University of Akron employees hired on or after September 28, 2016. These employees are covered by OPERS unless terminated and rehired within one (1) year of September 28, 2016.
- Employees of community school operators who withhold Social Security taxes beginning with their first paycheck: whose initial employment with the community school operator is on or after July 1, 2016, or; who previously worked for a community school operator and returned to work for that same operator on or after July 1, 2016, provided the employee was not previously employed by the same operator at any time between July 1, 2015 to June 30, 2016, and whose date of reemployment is before July 1, 2017. The

Plan Summary

community school operator must have withheld Social Security taxes for employees on or before February 1, 2016, in order for employers to fall under this exemption.

CONTRIBUTIONS

The employee and employer are required to contribute a percentage of the employee's compensation to SERS to fund the benefits available. Employees contribute 10% of their gross compensation. Employers contribute 14% of the employee's compensation. Members are entitled to a return of their contributions, either in the form of monthly benefits, provided they meet eligibility requirements, or a single lump-sum payment after the termination of employment.

SERVICE CREDIT

The amount of a member's service credit is a factor in determining:

- Eligibility for retirement or disability benefits
- The amount of a benefit
- Eligibility for health care coverage and the amount of the health care premium

It also determines the eligibility of a member's dependents for survivor benefits, the amount of benefits, and availability of health care coverage.

Service credit is accrued through contributions during school employment, for other periods at no cost, and for other service that may be purchased.

Contributing Service Credit

One year of service credit is granted upon completion of 120 or more days of paid school employment within a fiscal year (July 1 through the following June 30). Any portion of a day constitutes one full day. If service is less than 120 days, a fractional amount of service credit is prorated on the basis of a 180-day school year.

Free Service Credit

Additional service credit up to three years is available at no cost for periods a member received Workers' Compensation. In addition, certain periods of military service or disability credit may be available at no cost.

Purchased Service Credit

The following additional service credit may be available for purchase:

- Previously refunded SERS service credit
- Employer-authorized unpaid leaves of absence
- Any service after July 1, 1991, in a position for which SERS membership was compulsory, but for which a member was permitted to, and did, sign an exemption from membership form
- Any service before July 1, 1991, in a position for which SERS membership was optional, and a member did not choose to become a member
- Up to five years of service with a public or private school, college, or university in another state, or operated by the federal government, which has been chartered or accredited by the proper government agency if the service in a comparable position in Ohio would have been covered by an Ohio state retirement system, or an Ohio municipal retirement system except the Cincinnati Retirement System
- Periods of military service
- Up to two years for periods when the member resigned because of pregnancy or adoption of a child
- School board member service prior to July 1, 1991
- Cincinnati Retirement System covered service
- Service covered by the Ohio Police & Fire Pension Fund or Ohio Highway Patrol Retirement System if not being used in a benefit under those systems
- Disability credit, if member received SERS disability benefits for more than two years and returned to work for at least two years after the disability benefit terminated

Plan Summary

Other Ohio State Retirement System Service Credit

If a member has been employed in a job covered by the State Teachers Retirement System of Ohio (STRS) or the Ohio Public Employees Retirement System (OPERS) as well as in a job covered by SERS, at retirement the member may receive a retirement benefit independently from each of the systems if eligible, or may combine the service credit and accounts in all the systems to receive one benefit. The system with the greatest service credit will be the system that will calculate and pay the benefit. While the salaries in one year will be added together, if the member has service credit in each system for the same year, the member cannot be credited with more than one year of service credit for each 12 months in a year.

Early Retirement Incentive Program

An employer may establish an Early Retirement Incentive program (ERI), which allows employees who are at least 57 years old to retire early. Under an ERI, an employer may purchase up to five years of service credit for its eligible employees. If an employer has an ERI, it notifies all eligible employees of the plan and its requirements.

AGE AND SERVICE RETIREMENT

Eligibility

A member who retired on or before August 1, 2017, from SERS retired under the following age and service credit guidelines:

- Five (5) years of service credit and is at least 60 years old,
- 25 years of service credit and is at least 55 years old, or
- 30 years of service credit irrespective of age.

These guidelines also apply to grandfathered members. To be grandfathered, as of August 1, 2017, the member must have had at least 25 years of service credit or purchased the right to be grandfathered.

A member who is not grandfathered may retire under the following age and service credit guidelines:

- 10 years of service credit and is at least 62 years old,
- 25 years of service credit and is at least 60 years old, or
- 30 years of service credit and is at least 57 years old.

Calculating a Benefit

The calculation of a benefit is determined using the member's salary, service credit, and age.

The **salary** used is the Final Average Salary (FAS) which is the average of the three (3) highest years of salary. If a member has more than one covered job, the salaries will be combined.

The **service credit** used is the total service credit at the time of retirement.

The **age** used to calculate a benefit is the member's actual age at the time of retirement.

The formula used in calculating a benefit is as follows:

1. The value of a year of service credit is determined by multiplying the member's FAS by 2.2%, and by 2.5% for each year above 30 years of service credit. If the result is less than \$86.00, then \$86.00 is the value of each year.
2. The number of years of service credit is then multiplied by this value of each year to determine the annual retirement benefit.
3. Depending on the member's service credit and age at retirement, the annual benefit may be reduced to cover a longer period of retirement.

Payment Plans

At retirement, a member must choose a payment plan. There are three categories of plans. All plans pay a monthly benefit for the retiree's life. Under the first category, payments cease with the retiree's death; this is Plan B (Single Life Allowance). Another category provides a continuing benefit to a designated beneficiary after the retiree's death. The plans in this category are Plan A, C, D (Joint Life plans), and F (Multiple Beneficiaries plan). The third category provides payment to a designated beneficiary for a specified period of time if the retiree dies during the specified period; this is Plan E (Time Limited). Choosing a plan other than the Single Life Allowance will result in a reduced monthly benefit to the retiree depending on the retiree's age, the beneficiary's age, and the plan chosen.

Plan Summary

Partial Lump Sum Option Payment

In addition to selecting a payment plan, a member may elect to receive part of their benefit in a one-time partial lump sum option payment (PLOP), which will permanently reduce the lifetime monthly benefit. A PLOP payment may be from 6 to 36 months of the unreduced retirement allowance, and cannot reduce the original allowance more than 50%.

Reemployment

A retiree may be reemployed after retirement. A job in the private sector does not affect the retiree's benefit.

However, if the job is in a position covered by SERS, the State Teachers Retirement System of Ohio, the Ohio Public Employees Retirement System, the Ohio Police & Fire Pension Fund, or the Ohio Highway Patrol Retirement System, SERS must be notified. If the retiree returns to work in a job covered by any of these systems before the retiree has received a SERS benefit for two months, the retiree forfeits the benefit payment for each of the two months in which the retiree worked.

If the retiree returns to a SERS-covered position, then employee and employer contributions are required for the new position. The retiree accrues a new benefit in the form of an annuity based on the contributions paid by the retiree and the employer. This is separate from the original SERS benefit. There are no other benefits available, and the retiree does not accrue any additional service credit for the period of reemployment.

DISABILITY BENEFITS

A member is entitled to a benefit under one of two disability plans. A member who became a member on or after July 29, 1992, is covered under the **new disability plan**. A member who became a member before July 29, 1992, is covered by the **old disability plan** unless they exercised a one-time election to switch to the new plan.

The following describes the common and different features of both plans.

Eligibility

Under both plans, a member is eligible for disability benefits if the member:

- Has at least 5 years of total service credit;
- Files an application no later than 2 years from the date that the contributing service stopped;
- Is permanently disabled, either physically or mentally, for work in a SERS-covered position as determined by a physician appointed by SERS;
- Became disabled after becoming a SERS member;
- Did not receive a refund of the member's contributions;
- Does not receive a service retirement benefit;
- Is not receiving a disability benefit from State Teachers Retirement System of Ohio, the Ohio Public Employees Retirement System, the Ohio Police & Fire Pension Fund, the Ohio Highway Patrol Retirement System, or the Cincinnati Retirement System;
- Is not applying for a disability benefit based on a disabling condition that resulted from a felony the member was convicted of, pled guilty to, or was found not guilty of by reason of insanity.

Under the old disability plan, a member also must apply before turning 60 years old. Under the new disability plan a member may apply at any age.

All disability recipients enrolled in a SERS health care plan are required to apply for Social Security disability benefits, if eligible.

Benefit Payment

Old Disability Plan

Under the old disability plan, an annual benefit is calculated by the following formula using total service credit and Final Average Salary (FAS):

1. The value of a year of service credit is determined by multiplying the member's FAS by 2.2%. If the result is less than \$86.00, then \$86.00 is the value of each year.
2. The number of years of service credit is then multiplied by this value of each year.

Plan Summary

Service credit includes all service credit the member has at the time of the benefit effective date plus the number of years between the member's current age and age 60. The benefit cannot be less than 30% of FAS or more than 75%.

New Disability Plan

Under the new disability plan, the amount of an annual benefit is the greater of 45% of FAS, or total service credit at the time of the application multiplied by 2.2% of FAS. The following chart shows the approximate applicable percentage amounts under this plan:

| Years of Service Credit | Percentage of the Member's FAS |
|-------------------------|--------------------------------|
| 5-21 | 45.0 % |
| 22 | 48.4 |
| 23 | 50.6 |
| 24 | 52.8 |
| 25 | 55.0 |
| 26 | 57.2 |
| 27 | 59.4 |
| 28 or more | 60.0 |

Termination of Benefits

Under the **new disability plan**, benefits also will end after a specified number of months as shown:

| Age at Effective Date | Period Benefits Payable |
|-----------------------|-------------------------|
| Younger than 60 | Until age 65 |
| 60 or 61 | 60 months |
| 62 or 63 | 48 months |
| 64 or 65 | 36 months |
| 66, 67, or 68 | 24 months |
| 69 or older | 12 months |

At the end of the period, the member can apply for a conversion retirement benefit.

A disability benefit under either plan stops if any one of the following events occur:

- A subsequent SERS medical re-examination finds that the member meets the applicable standard for termination, which changes 3 or 5 years after the disability benefits began (depending on whether the member is receiving rehabilitation or treatment).
- The member is no longer disabled from their SERS-covered position, or
- The member is capable of performing other job duties with pay at or above 75% of his or her annual compensation and can reasonably find such a position with his or her qualifications.
- The member returns to a SERS-covered job.
- The member dies.
- The member requests that benefits end.

DEATH BENEFIT

At death after retirement or receipt of a disability benefit, the retiree's beneficiary or disability benefit recipient's beneficiary is entitled to a one-time lump sum payment of \$1,000.

SURVIVOR BENEFITS

Eligibility

If a member dies while working, before the member begins receiving a monthly service retirement benefit, or while receiving a disability benefit, the member's qualified survivors are entitled to certain benefits.

A beneficiary qualifies for benefits in the following order:

1. Person designated in writing by the member on a form provided by SERS

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2. If there is no designated beneficiary or the beneficiary died before the member, the statutory order of beneficiaries applies

The statutory order of succession is as follows, the member's:

1. Surviving spouse
2. Surviving children
3. Dependent parent who is age 65 or older
4. Surviving parents
5. Estate

The first qualifying beneficiary is entitled to a one-time, lump-sum payment of only the member's employee contributions to SERS, or monthly benefits if otherwise eligible. However, if the member is survived by children under age 19, only a monthly benefit is available to the qualifying survivors.

Monthly benefit payments are available if the member:

1. Had at least one and one-half (1½) years of contributing service credit
2. Had at least one-quarter (¼) year of Ohio service credit earned within two and one-half (2½) years prior to death
3. Was not receiving a service retirement benefit

The following survivors are eligible for monthly benefits:

1. Surviving spouse at age 62
2. Surviving spouse at any age if the member had 10 or more years of service credit; or if there are qualified children; or has been declared mentally or physically incompetent by a court
3. Children who have never married and are under 19, or have been declared mentally or physically incompetent by a court
4. Dependent parent age 65 or older

Benefit Payments

The amount of the monthly benefit is determined under one of the following schedules, whichever pays the greater benefit:

| | SCHEDULE I | SCHEDULE II |
|-----------------------------------|--|--|
| Number of Qualified Beneficiaries | Monthly Benefit Shall Not be Less than | As a Percentage of the Member's Final Average Salary |
| 1 | \$96* | 25% |
| 2 | 186 | 40 |
| 3 | 236 | 50 |
| 4 | 236 | 55 |
| 5 or more | 236 | 60 |

*Not less than \$106 to spouse if the member had 10 or more years of service credit.

| SCHEDULE III | |
|------------------|---|
| Years of Service | As a Percent of the Member's Final Average Salary |
| 20 | 29% |
| 21 | 33 |
| 22 | 37 |
| 23 | 41 |
| 24 | 45 |
| 25 | 48 |
| 26 | 51 |
| 27 | 54 |
| 28 | 57 |
| 29 or more | 60 |

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COST-OF-LIVING ADJUSTMENT

An individual whose benefit effective date is before April 1, 2018, is eligible for a cost of living adjustment (COLA) on the first anniversary date of the benefit. New benefit recipients must wait until the fourth anniversary of their benefit for COLA eligibility. The COLA is added each year to the base benefit amount on the anniversary date of the benefit. The COLA is indexed to the percentage increase in the CPI-W, not to exceed 2.5% and with a floor of 0%.

A three-year COLA suspension was in effect for all benefit recipients for calendar years 2018, 2019, and 2020. The Retirement Board approved a 0.5% COLA for calendar year 2021.

HEALTH CARE

Currently, SERS offers medical and prescription drug coverage to qualifying benefit recipients. To the extent that resources permit, SERS intends to continue offering access to health care coverage. However, the Retirement System reserves the right to change or discontinue any plan or program at any time.

Currently a **service retiree** qualifies for health care coverage if the retiree has 10 qualified years of service credit at retirement. Qualifying service credit does not include:

- Military, other than free or interrupted military service credit;
- Other government and school service credit;
- Exempted service credit;
- Service credit purchased by an employer under an Early Retirement Incentive plan (ERI).

A beneficiary of a deceased service retiree who receives a monthly benefit qualifies for health care coverage if the retiree had qualified for such coverage.

Disability benefit recipients qualify for the SERS health care coverage upon receipt of a disability benefit.

Survivor benefit recipients qualify for health care coverage upon receipt of a survivor benefit.