2020 CAFR

Comprehensive Annual Financial Report
For the Year Ended June 30, 2020

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

®

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
COMPREHENSIVE ANNUAL FINANCIAL REPORT
For the year ended June 30, 2020

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 stakeholders so that our membership will understand and achieve security in retirement

Values

• Focus • Accountability • Communication
• Collaboration • Innovation

Introductory Section (unaudited)

Financial Section

Investment Section (unaudited)

Actuarial Section (unaudited)

Statistical Section (unaudited)

Plan Summary

Introductory Section

SERS Retirement Board

Catherine Moss

Hugh Garside Jr.

Jeffrey DeLeone

James Haller

Matthew King

Barbra Phillips

James Rossler Jr.

Frank Weglarz

Daniel Wilson

Chair, Retiree-Member
Catherine P. Moss
Term Expires 6/30/2020

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

Appointed Member
Jeffrey T. DeLeone
Term Expires 12/5/2020

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

Employee-Member
Matthew King
Term Expires 6/30/2020

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

Appointed Member
James Rossler Jr.
Term Expires 11/4/2020

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

Appointed Member
Daniel L. Wilson
Term Expires 9/27/2020

Advisors

Independent Auditor
RSM US LLP - Cleveland, Ohio

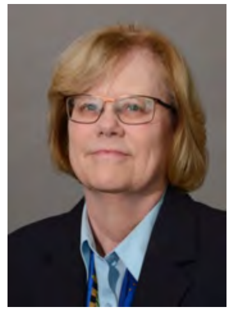
Actuary
Cavanaugh Macdonald Consulting, LLC - Kennesaw, Georgia

Investment Consultant
Wilshire Associates, Inc. - Santa Monica, California

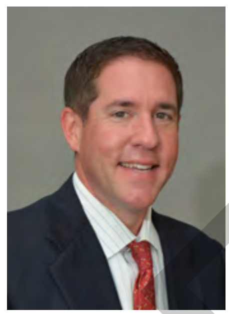
Medical Advisor
Dr. Glen Borchers - Columbus, Ohio

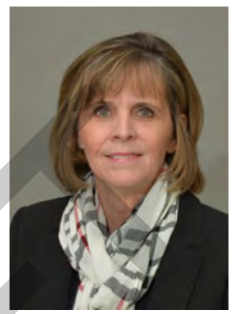
Investment Consultants and Investment Managers and Brokers' Fees - see pages 65 - 67


Richard Stensrud

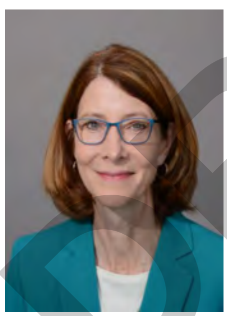

Karen Roggenkamp


Farouki Majeed


Joseph Marotta


Tracy Valentino


Matthew Sanders


Christi Pepe


Michelle Miller


Jay Patel


John Grumney

RETIREMENT BOARD

CHIEF INVESTMENT OFFICER
Farouki Majeed

EXECUTIVE DIRECTOR
Richard Stensrud

CHIEF AUDIT OFFICER
Vacant

GENERAL COUNSEL
Joseph Marotta

CHIEF FINANCIAL OFFICER
Tracy Valentino

DEPUTY EXECUTIVE DIRECTOR
Karen Roggenkamp

ADMINISTRATIVE SERVICES
Matthew Sanders

HEALTH CARE
Christi Pepe

HUMAN RESOURCES
Michelle Miller

INFORMATION TECHNOLOGY
Jay Patel

MEMBER SERVICES
John Grumney

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

School Employees Retirement System of Ohio

For its Comprehensive Annual Financial Report For the Fiscal Year Ended

June 30, 2019

Christopher P. Morrill

Executive Director/CEO

Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2020

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 XX, 2020

Dear Chair and Members of the Retirement Board:

On behalf of all management and staff, we are pleased to submit the *Comprehensive Annual Financial Report* of the School Employees Retirement System of Ohio (SERS) for the fiscal year ended June 30, 2020. 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 community 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

SERS Adjusts Service Model Due to COVID-19 Pandemic On March 23, 2020, Ohio Governor Mike DeWine issued a stay-at-home order to all state residents in an effort to reduce the spread of COVID-19. To comply with this order, SERS immediately closed its Headquarters building to staff and visitors and implemented a work-from-home business model for the majority of staff. Only individuals with a business need to be on site, such as printing and mailing and building maintenance, were permitted to report to the building.

I want to commend our staff for their innovation, ingenuity, and adaptability as we transitioned to a remote customer service model with little time to prepare. Our IT Services Department deployed cell phones and laptops to staff who needed them, transitioned our phone capabilities to voice over internet protocol to improve customer service, and assisted others in setting up personal electronic devices so they could securely access SERS' information systems. The entire staff learned to effectively use new technology tools to keep workflow moving in a consistent and efficient manner.

Handling our daily volume of phone calls remotely was an immediate challenge. Initially, SERS' Member Support Team (MST) was unable to answer phone calls directly while they were away from the office. They began using voicemail exclusively and made it a priority to return all calls within 24 hours. They were able to successfully contact those who left voicemail messages 93% of the time within one or two return calls. On May 27, half of the MST staff began reporting to the office daily on a staggered schedule, which once again allowed us to answer calls directly. By the end of the fiscal year, staff was answering 76% of phone calls directly.

Another consequence of the stay-at-home order was that SERS had to cancel all of its in-person retirement conferences, counseling sessions, health care open enrollment meetings, and employer training sessions. By using a mix of one-on-one phone calls, virtual meetings, webinars, and videos, staff has been able to effectively continue these types of interactions remotely. In addition, for the first time in our history, with legislative approval, we conducted the May and June monthly Board meetings via Zoom.

While we've gotten used to attending meetings remotely from our living rooms, basements, guest rooms, closets, porches, and any other spaces that afford some privacy from other work-from-home family members, we look forward to resuming in-person communication with our members and stakeholders as soon as it is safe to do so.

Keeping the Pension Fund Sustainable In July, the SERS Board began dedicating time at each monthly meeting to discuss the financial sustainability of the System. As fiduciaries, the Board's priority is to keep SERS financially strong so it can continue to provide a solid foundation of retirement security for all current and future SERS members who meet eligibility requirements for a benefit.

The goal of these discussions is to make sure SERS is in position to withstand changes in member demographics and investment experience, and be able to address unexpected financial pressures. At the core of these discussions, the Board is scrutinizing SERS' plan design to make sure the benefits SERS provides – pensions, health care, disability, survivor benefits, death benefits, etc. – are still working as they should in relation to the current demographics of the membership. They are also looking for operational efficiencies that could benefit the System financially, and monitoring membership and retirement trends that could impact the future financial stability of the System.

Working from the position of a healthy pension fund, the Board believes that the right time to prepare for strengthening SERS is before financial or legal mandates would require them to act. There is no urgency to make changes and no preconceived outcome associated with these discussions.

The following topics were discussed in FY2020: the impact of technology on education; SERS' purpose; the definition of a career member; the way service and disability pensions are calculated; benefit levels; eligibility for benefits; vesting requirements; retirement formula; health care, disability, and survivor benefits; the point at which retirees' pensions exceed their final average salary; the way final average salary is calculated; the length of a work day and work year; vesting period; refunds; and the effect of negative cash flow (paying out more in benefits than receiving in contributions) on SERS' finances.

Summaries of these monthly discussions and data provided to the Board to support these discussions are available on our website at www.ohsers.org/about-sers/board-of-trustees/sustainability.

SERS Introduces Health Reimbursement Arrangement and Changes Health Care Eligibility Rules for Those Who Qualify for Medicaid Despite engaging with numerous federal legislators and personnel at the Centers for Medicare and Medicaid Services (CMS) for three years, no legislative solution could be found in time to extend SERS' Health Care Wraparound Plan in 2020. However, SERS' Health Care Department was able to develop a Health Reimbursement Arrangement (HRA) for 2020 that is similar to the Wraparound Plan. This HRA provides reimbursement for the same types of expenses that were provided by the SERS Wraparound Plan, except for the elimination of the hearing aid benefit. Under federal regulations, the per-family annual reimbursement is limited to $1,800. The HRA is available to non-Medicare retirees in 2021 who choose a health care plan from the Marketplace. SERS will continue to partner with HealthSCOPE to assist retirees in choosing a health care plan that meets their physical and financial needs and filling out the necessary enrollment application.

Because the Wraparound Plan greatly benefited SERS' health care fund and non-Medicare retirees, SERS' Government Relations and Health Care Services departments have continued to advocate for an extension of the Wraparound Plan in 2021 and beyond.

A stand-alone bill, H.R. 4763, was introduced in October by Rep. Marcy Kaptur of Ohio. This bill advocated for extending the Wraparound pilot program for an additional five years. By the end of the fiscal year, eight Ohio lawmakers had cosponsored the legislation but it had not yet received a hearing.

SERS was also able to get language inserted into the final appropriations bill that recommended CMS extend the Wraparound Program and issue a report to the House Committee on Appropriations. CMS declined to issue a report or extend the program last year and the committee was notified of their response.

The Board also approved a change to health care rule 3309-1-35 in March. Going forward, any individual who is ineligible for Medicare and whose gross SERS benefit amount is less than Ohio's income threshold for Medicaid eligibility will be presumed to be eligible for Medicaid. This means that they will no longer be eligible to receive SERS' health care. Because such individuals could have other sources of income, they will remain eligible for SERS' health care coverage upon providing proof of ineligibility for Medicaid. The rule also permits benefit recipients to reenroll in SERS' health care coverage if they later become ineligible for Medicaid or become eligible for Medicare. Similarly, a Board-approved change to health care rule 3309-1-64 clarifies that if such individuals are ineligible for SERS' health care because they are eligible for Medicaid, they retain their eligibility to enroll in SERS' dental and vision coverage.

SERS Upgrades Parking Garage SERS' headquarters building and attached parking garage will be 20 years old in 2021, meaning that some of the original equipment is in need of replacement. During this fiscal year, SERS budgeted equipment upgrades to the security cameras and entrance gates. These upgrades have substantially improved our ability to monitor vehicle and foot traffic within the garage.

In addition, SERS took advantage of a $50,000 rebate offered by American Electric Power (AEP) and installed six electric vehicle charging stations on the second level of the garage. The rebate covered all but $2,500 of the installation costs. The charging stations can accommodate completely electric vehicles as well as hybrid models.

SERS' maintenance staff had been getting more requests from tenants, staff, and visitors to provide charging capabilities for electric vehicles and the AEP rebate provided a low-cost option. The SERS stations are not listed on public grids and are only available to persons authorized to park in the SERS garage.

Usage and payment are controlled by a phone application that also alerts users when their time allotment has expired. Charging sessions are limited to allow more vehicles to access the service.

Internal Reorganization During FY2020, two new departments were created to coordinate staff efforts in securing critical business information and managing the storage of records. In addition, one area was expanded to consolidate information delivery processes.

To better coordinate staff efforts to keep SERS' data secure, the Enterprise Risk Management (ERM) Department was re-aligned with the appointment of a newly created Chief Risk Officer position. This team consists of information security staff that monitors SERS' security defenses and implements new technology to combat emerging cybersecurity threats, and staff that identifies areas of risk within the organization, assesses the severity of those risks, and works on ways to reduce those risks. This department reports directly to the Deputy Executive Director.

Additionally, a new Information Governance department was created. This department combined the efforts of the former records and imaging department staff and tasked them with automating the retention of business-critical information, and disposing of records that no longer meet a business need. This includes both hard copy and digital records. Information Governance is part of the Human Resources Department.

Finally, the print shop operations that include graphic design were merged into the Communications Department to streamline the development, printing, and mailing of newsletters, handouts, and informational brochures.

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 $14.8 billion. Investment return was 3.0% (net) for the fiscal year versus the benchmark return of 3.7% and the actuarial assumed return of 7.50%. Net investment income was $424.2 million compared to $853.6 million in FY2019. The SERS Investment Committee structure is 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 Inc. (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 keep the existing asset allocation through FY2020. The allocation is 22.5% for US equity, 22.5% for non-US equity, 10% for private equity, 20% for fixed income and cash, 15% for real assets, and 10% 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 FY2020, the funded ratios for the three benefits mandated by statutes increased, which was due to the 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 70.5% over a 25-year period to 71.5% over a 24-year period. The funding level for discretionary health care benefits increased from 21.1% to 26.9% 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 Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2019. This was the 35th 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 CAFR 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, 2019. SERS first issued the SAFR for fiscal year ended June 30, 2013 and has received this award for seven 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 2020. 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, and for compliance with legal requirements, and as 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 | Tracy L. Valentino

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 senators, and regulatory agencies on the impact of introduced legislation or those proposed regulations.

State Legislation

FROM THE 133RD GENERAL ASSEMBLY:

HB 197 Omnibus Measures on Coronavirus (3/27/2020, Effective) - To continue essential operations of state government and maintain the continuity of the state tax code in response to the declared pandemic and global health emergency related to COVID-19, to make appropriations, and to declare an emergency. The omnibus legislation contained only a few provisions with minor impact for SERS.

- Provided for continued flexibility for open meetings law to allow for remote participation.
- Allowed for delay of any retirement board elections scheduled to take place the remainder of 2020. (SERS does not have any scheduled board elections during this period.)
- Waived the two-month pension forfeiture period for reemployed retirees who return to work for five specific OPERS-covered employers: Departments of Rehabilitation and Corrections, Youth Services, Mental Health and Addiction Services, Veterans Services, and Developmental Disabilities. (SERS shared retiree information with OPERS regarding re-employed retirees.)

Federal Legislation

FROM THE 116TH CONGRESS:

HR 748 CARES Act (03/27/2020, Became Public Law No: 116-136) - Initially introduced as a repeal of the health care “Cadillac Tax.” Ultimately became a vehicle for COVID-19 relief legislation.

HR 3934 Equal Treatment of Public Servants Act of 2019 (07/24/2019, Referred to the House Committee on Ways and Means) - Amends title II of the Social Security Act to replace the Windfall Elimination Provision with a formula equalizing benefits for certain individuals with non-covered employment.

HR 4540 Public Servants Protection and Fairness Act (09/27/2019, Referred to the House Committee on Ways and Means) - Amends 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.

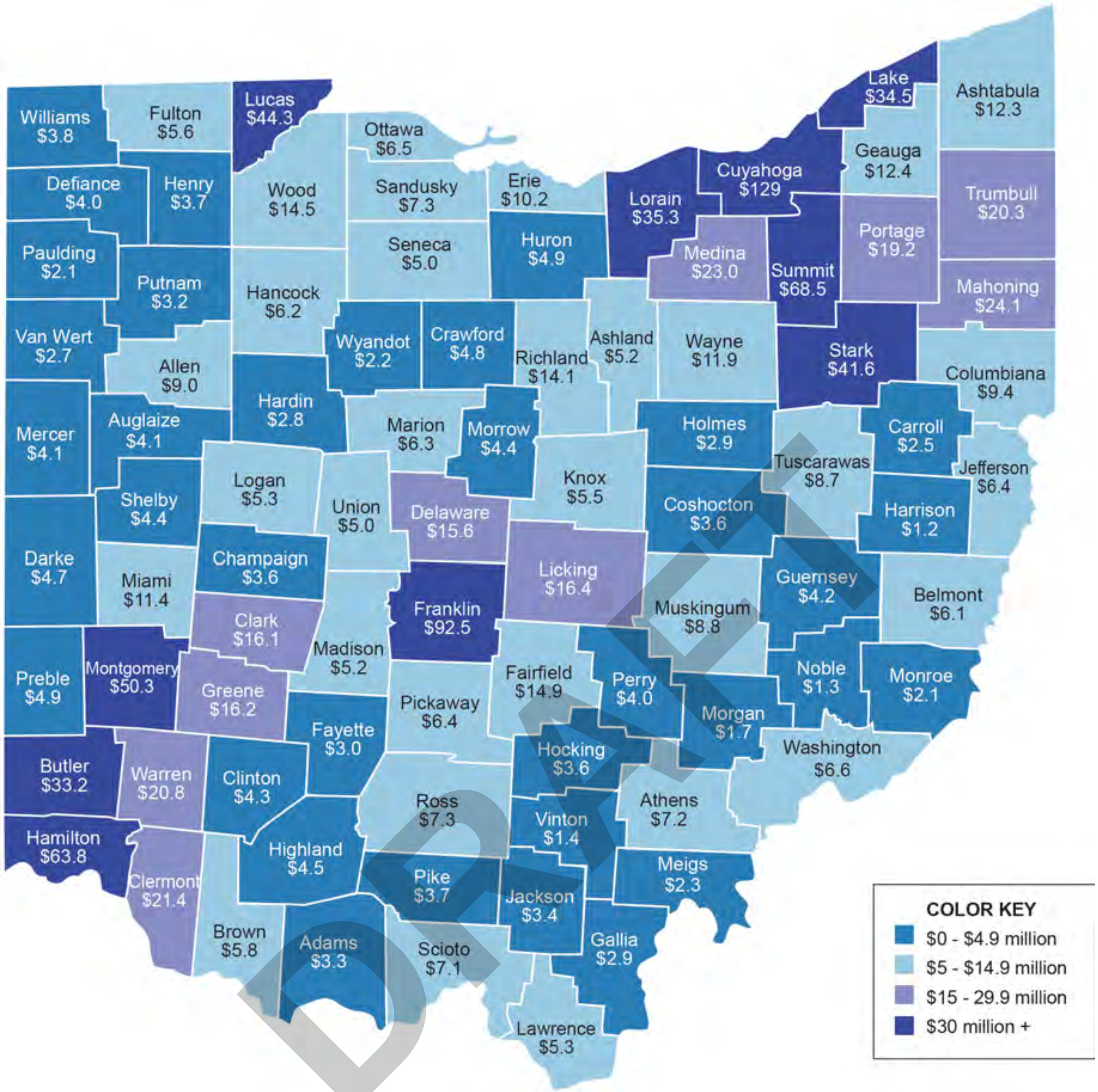
HR 4763 Wraparound Health Coverage Protection Act (10/18/2019, Referred to the House Committee on Energy and Commerce) - Extends the limited wraparound coverage pilot program for an additional five years.

HR 1994 SECURE Act, (12/20/2019, Became Public Law No: 116-94) - Originally passed the House in July 2019, was approved by the Senate on Dec.19, 2019, as part of an end-of-year appropriations act and accompanying tax measure, and signed into law by President Donald Trump. The far-reaching bill includes significant provisions aimed at increasing access to tax-advantaged accounts and preventing older Americans from outliving their assets. The Act pushes back the age at which retirement plan participants need to take required minimum distributions (RMDs), from 70½ to 72.

Regulatory Activity

SERS advocated to the Secretary of Health and Human Services and Administrator of CMS, to extend the safe harbor provision for rebates to Employer Group Waiver Plans (EGWPs), in conjunction with the House (HR 3) and Senate (S.2543) bills introduced to lower the cost of prescription drugs.

Pension Benefits by County FY2020 *($ in millions)*



Public pensions positively impact Ohio's economy. Of the 80,851 individuals receiving pension benefits from SERS, nearly 93% live in Ohio.

In FY2020 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, $2.63 was returned to local economies.

Financial Section

Audit letter to be inserted

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Management's Discussion and Analysis (Unaudited)

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, 2020. 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, 2020 were $15,234.5 million, a decrease of $(202.7) million, or (1.3)%, compared to FY2019 assets. Cash and Short Term Investments are 21% lower than FY2019. Securities Lending Collateral is 40% lower than FY2019.
- SERS' total liabilities at June 30, 2020 were $325.0 million, a decrease of $(111.5) million, or, (25.5)% compared to FY2019 liabilities. The decrease is due to the timing of investment transactions resulting in a lower Investment Payable balance at year end and a reduction in Securities Lending Transactions.
- Deferred inflows changed substantially from FY2019 to FY2020. Early implementation of GASB Statement No. 87, *Leases* is reflected in FY2020. It increased deferred inflows by $4.2 million. The deferred inflows from SERS' participation in the Ohio Public Employees Retirement System (OPERS) also increased from FY2019 to FY2020. Deferred inflows from Pensions increased by $5.9 million and deferred inflows from Other Post Employment Benefits (OPEB) increased by $2.8 million.
- Total additions to plan net position were $1,414.0 million, comprised of contributions of $989.8 million and net investment income of $424.2 million. This is a decrease of $429.4 million in investment income from FY2019 to FY2020. Investment earnings were approximately 50% of the prior year's income. The pandemic from COVID-19 impacted investments results in a significant way during FY2020.
- Total deductions from plan net position for FY2020 totaled $1,520.0 million, including benefits payments of $1,412.8 million and administrative expenses of $30.9 million, an increase of 0.3% over FY2019 deductions. Deductions have remained steady due to the Board's decision to eliminate COLA increases in FY2020.
- The net decrease in plan net position was $(106.0) million compared to a net increase of $301.7 million in FY2019. The FY2020 change in plan net position was lower than the FY2019 due to lower investment income in FY2020 marginally offset by higher member and employer contributions and lower health care expenses.

CONDENSED SUMMARY OF TOTAL FIDUCIARY NET POSITION

($ in millions)			Change	
ASSETS	2020	2019	Amount	Percent
Cash	$ 664.3	$ 837.8	$ (173.5)	(20.7)%
Receivables	196.9	257.1	(60.2)	(23.4)
Investments	14,310.1	14,276.5	33.6	0.2
Capital Assets, Net	62.3	65.2	(2.9)	(4.4)
Other Assets	0.9	0.6	0.3	50.0
Total Assets	15,234.5	15,437.2	(202.7)	(1.3)
DEFERRED OUTFLOWS OF RESOURCES				
Deferred Outflows	6.5	8.1	(1.6)	(19.8)
LIABILITIES				
Benefits & Accounts Payable	42.5	55.9	(13.4)	(24.0)
Other Liabilities	282.5	380.6	(98.1)	(25.8)
Total Liabilities	325.0	436.5	(111.5)	(25.5)
DEFERRED INFLOWS OF RESOURCES				
Deferred Inflows	13.6	0.7	12.9	1,842.9
Fiduciary Net Position	$ 14,902.4	$ 15,008.1	$ (105.7)	(0.7)%

CONDENSED SUMMARY OF CHANGES IN TOTAL FIDUCIARY NET POSITION

($ in millions)			Change	
ADDITIONS	2020	2019	Amount	Percent
Contributions	$ 989.8	$ 964.1	$ 25.7	2.7 %
Net Investment Income	424.2	853.6	(429.4)	(50.3)
Total Additions	1,414.0	1,817.7	(403.7)	(22.2)
DEDUCTIONS				
Benefits	1,412.8	1,404.6	8.2	0.6
Refunds & Transfers	76.3	77	(0.7)	(0.9)
Admin. Expenses	30.9	34.4	(3.5)	(10.2)
Total Deductions	1,520.0	1,516.0	4.0	0.3
Net Increase (Decrease)	(106.0)	301.7	(407.7)	(135.1)
Balance, Beginning of Year*	15,008.4	14,706.4	302.0	2.1
Balance, End of Year	$ 14,902.4	$ 15,008.1	$ (105.7)	(0.7)%

*FY2019 was restated to reflect GASB 87 implementation.

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 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 2019. 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.

SERS early implemented GASB Statement No. 87, *Leases* during FY2020. The primary objective of this statement is to increase the usefulness of financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows or outflows of resources based on the payment provisions of the contract. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use leased asset. A lessor is required to recognize a lease receivable and a deferred inflow of resources. The effective date of this standard is reporting periods beginning after June 15, 2021. The statement requires retroactive application. SERS owns the building that it occupies along with several other tenants. Lease Receivables of $5.2 million, Deferred Inflows - Leases of $4.9 million and an adjustment to opening Fiduciary Net Position of $0.3 million were recorded for the initial implementation of GASB Statement No. 87.

FINANCIAL ANALYSIS

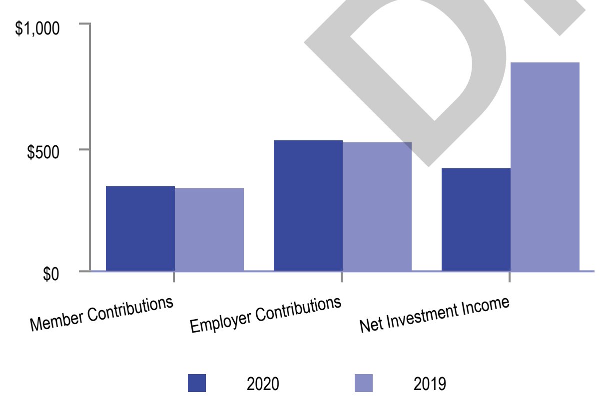
A statewide defined benefit public pension plan, such as SERS, has a long-term perspective on financial activities. SERS' primary responsibility is to assure that sufficient funds will be available to provide retirement, disability, and survivor benefits, Medicare Part B premium reimbursements, and lump 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, 2020 and 2019, and for the years then ended 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 FY2020 and FY2019", depicts the proportion that each source added to the fund's assets.

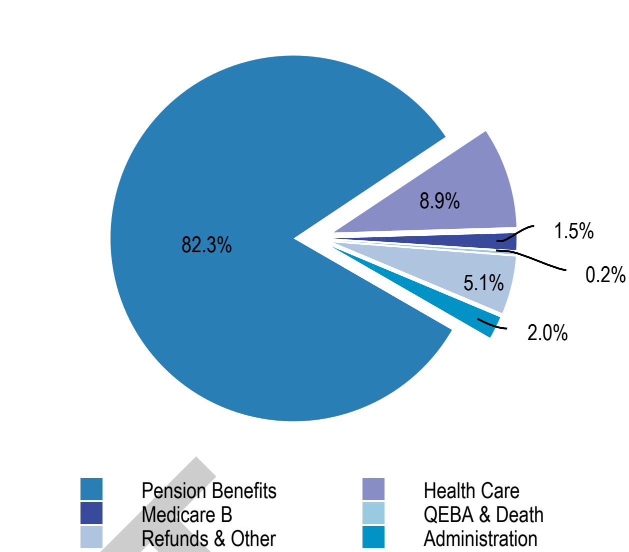
Comparative Additions by Source FY2020 and FY2019

($ in millions)



Expenses are 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 FY2020



SERS' fiduciary net position decreased by $(106.0) million during FY2020, compared to a net increase of $301.7 million in FY2019.

- 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. 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.

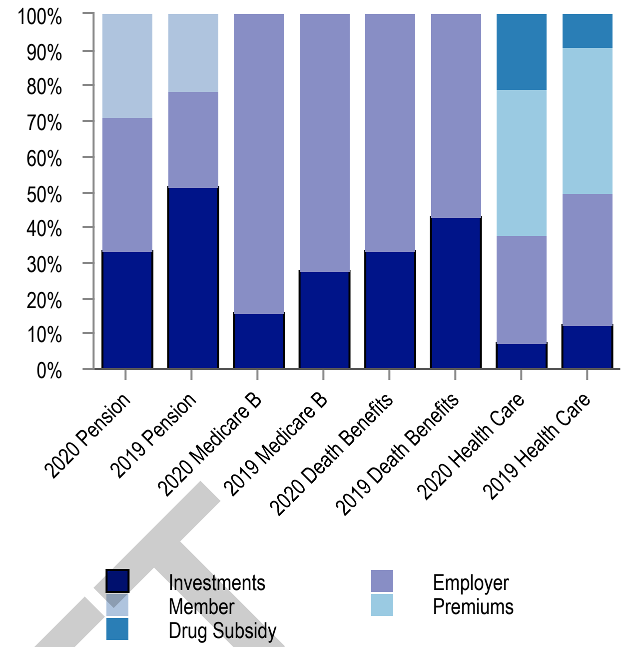
  Effective June 18, 2015, SERS adopted a new funding policy that allocates a higher portion of the employer contribution toward the Pension, Medicare B, and Death Benefits Funds until the fund achieves a funded status of 90%.

- Employee contributions and employer contributions, excluding the surcharge, increased 2.3%.

- 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 actuarially 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 FY2020. 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 decreased from $49.4 million in FY2019 to $46.4 million in FY2020. Although overall payroll increased, a shift in the earnings levels is suspected to have occurred as a result of COVID-19.

- Along with employer contributions and investment income, additions to the Health Care Fund include health care premiums paid by retirees. Enrollment and total premiums declined approximately 10% from FY2019 to FY2020.
- 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, and 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 $424.2 million compared to a gain of $853.6 million in FY2019. Staff continued with the implementation of the strategic plan adopted in FY2013. Although progress was made in terms of improving the portfolio structure to optimize risk and return and reduce fees, the COVID-19 pandemic significantly impacted investment returns.

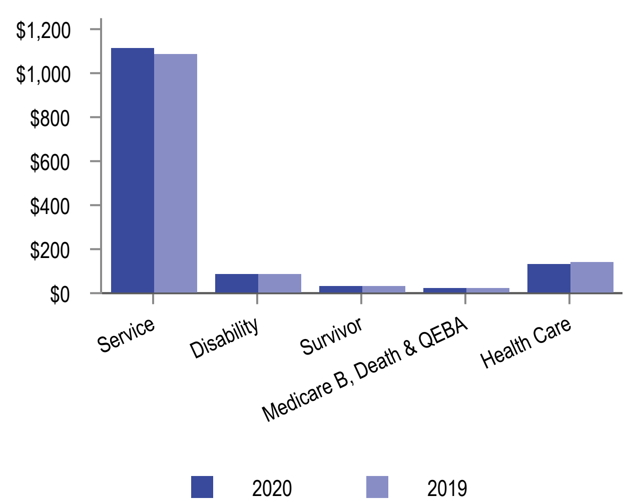
Comparison of Additions to Fiduciary Net Position by Fund



- Payments to service, disability, and survivor benefit recipients increased $18.7 million, or 1.5% during FY2020. Service retirement payments increased 1.8%, disability payments decreased 2.4%, and survivor benefits payments increased 0.7%.

Comparative Benefit Payments FY2020 and FY2019

($ in millions)



- Total refunds paid increased 3.7% from FY2019 to FY2020. A lump sum of employee contributions is only distributed to members who have 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 are eligible for an annuity may elect a lump sum distribution, which includes 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 FY2020 when compared to FY2019.
- 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 expense remained substantially the same in FY2020. 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 3.3% in FY2020.
- 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 $10.1 million, or 7.0%, to $135.0 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 mandated, by statute. Our funding policy is to maintain the Health Care Fund with a 20-year solvency period to insure 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:

AAL *($ in millions)*

Fund	AAL FY2020	AAL FY2019	Increase/ (Decrease)	% Change
Pension	$ 20,601	$ 20,090	$ 511	2.54 %
Medicare B	393	397	(4)	(1.01)
Death	40	40	—	0.00
Health Care	1,797	2,199	(402)	(18.28)

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:

UAL *($ in millions)*

Fund	UAL FY2020	UAL FY2019	Increase/ (Decrease)	% Change	Funded Ratio FY2020	Funded Ratio FY2019
Pension	$ 5,790	$ 5,823	$ (33)	(0.57)%	71.0 %	70.7 %
Medicare B	194	217	(23)	(10.60)	45.3	41.1
Death	13	14	(1)	(7.14)	64.5	61.6
Health Care	1,314	1,735	(421)	(24.27)	21.1	17.3

To completely understand the funding status of SERS, it is important to analyze actuarial data in combination with financial data. The actuarial data presented 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 market 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 market 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 market value of the assets. At the end of FY2019, the market value of assets exceeded the funding value by $71 million. At the end of FY2020, the market value of assets was below the funding value by $617 million.

As of June 30, 2020, the date of the latest actuarial valuation, the funded ratio for basic pension was 71.49%. In general, this means that for every dollar of future pension liability, SERS had accumulated approximately $0.71 to meet that obligation. The funded ratio for basic pension increased from June 30, 2019 by 0.98%. The June 30, 2020 actuarial report indicates that, if all actuarial assumptions were met, SERS would accumulate sufficient assets to pay all pension liabilities for active members and retirees within 24 years compared to 25 years at June 30, 2019.

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 was 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 will be performed in the spring of FY2021. Results from this study provide the Board with useful insight on adjustments to actuarial assumptions used in valuations, and may be beneficial to them during the pension sustainability discussions.

Markets are expected to continue to be 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, and how long it will take for the economy, financial markets, and public confidence to recover.

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.

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

Statement of Fiduciary Net Position as of June 30, 2020

	Pension Trust Fund	Medicare B Fund	Death Benefit Fund	QEBA Fund	Health Care Fund	TOTAL
ASSETS						
Cash & Operating Short Term Investments	$ 600,151,129	$ 8,197,834	$ 1,323,376	$ 226,796	$ 54,450,615	$ 664,349,750
Receivables						
Contributions						
Employer	1,451,204	1,204,500	229,253	—	46,489,261	49,374,218
Employee	3,080,288	—	—	—	—	3,080,288
Investments Receivable	115,393,124	1,545,087	206,793	16	3,133,533	120,278,553
Other Receivables	4,034,882	—	—	—	20,088,478	24,123,360
Total Receivables	123,959,498	2,749,587	436,046	16	69,711,272	196,856,419
Investments at Fair Value						
US Equity	4,029,095,618	53,923,462	7,220,139	—	109,445,957	4,199,685,176
Non-US Equity	3,445,391,977	46,111,456	6,174,142	—	93,590,289	3,591,267,864
Private Equity	2,071,400,140	27,722,615	3,711,949	—	56,267,310	2,159,102,014
Fixed Income	2,266,073,662	30,328,031	4,060,804	—	61,555,402	2,362,017,899
Real Estate	1,844,658,566	24,688,016	3,305,628	—	50,108,124	1,922,760,334
Total Investments at Fair Value	13,656,619,963	182,773,580	24,472,662	—	370,967,082	14,234,833,287
Securities Lending Collateral at Fair Value	72,253,442	967,005	129,478	—	1,962,685	75,312,610
Capital Assets						
Land	3,315,670	—	—	—	—	3,315,670
Property & Equipment, at Cost	96,997,477	—	—	—	—	96,997,477
Accumulated Depreciation and Amortization	(38,036,265)	—	—	—	—	(38,036,265)
Property & Equipment, Book Value	62,276,882	—	—	—	—	62,276,882
Prepaids and Other Assets	892,635	—	—	—	776	893,411
TOTAL ASSETS	14,516,153,549	194,688,006	26,361,562	226,812	497,092,430	15,234,522,359
DEFERRED OUTFLOWS OF RESOURCES						
Deferred Outflows - Pension	2,695,587	—	—	—	—	2,695,587
Deferred Outflows - OPEB	3,880,619	—	—	—	—	3,880,619
LIABILITIES						
Accounts Payable & Accrued Expenses	34,279,376	2,478	2,840	2,014	7,118,559	41,405,267
Benefits Payable	736,602	—	380,839	—	—	1,117,441
Investments Payable	198,828,393	2,661,023	356,300	—	5,400,955	207,246,671
Obligations under Securities Lending	72,207,512	966,390	129,396	—	1,961,438	75,264,736
TOTAL LIABILITIES	306,051,883	3,629,891	869,375	2,014	14,480,952	325,034,115
DEFERRED INFLOWS OF RESOURCES						
Deferred Inflows - Pension	6,493,635	—	—	—	—	6,493,635
Deferred Inflows - OPEB	2,949,387	—	—	—	—	2,949,387
Deferred Inflows - Leases	4,186,525					4,186,525
FIDUCIARY NET POSITION RESTRICTED FOR PENSION	$ 14,203,048,325	$ 191,058,115	$ 25,492,187	$ 224,798	$ —	$ 14,419,823,425
FIDUCIARY NET POSITION RESTRICTED FOR OTHER POSTEMPLOYMENT BENEFITS	$ —	$ —	$ —	$ —	$ 482,611,478	$ 482,611,478
FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS	$ 14,203,048,325	$ 191,058,115	$ 25,492,187	$ 224,798	$ 482,611,478	$ 14,902,434,903

See accompanying notes to the financial statements.

Statement of Changes in Fiduciary Net Position for the year ended June 30, 2020

	Pension Trust Fund	Medicare B Fund	Death Benefit Fund	QEBA Fund	Health Care Fund	TOTAL
ADDITIONS						
Contributions						
Employer	$ 461,695,266	$ 28,332,747	$ 1,529,777	$ 349,104	$ 48,187,050	$ 540,093,944
Employee	352,343,063	—	—	—	—	352,343,063
Other Income						
Health Care Premiums	—	—	—	—	65,037,210	65,037,210
Federal Subsidies & Other Receipts	—	—	—	—	32,349,114	32,349,114
	814,038,329	28,332,747	1,529,777	349,104	145,573,374	989,823,331
Income from Investment Activity						
Net Appreciation in Fair Value	204,549,714	2,627,850	377,859	—	5,263,639	212,819,062
Interest and Dividends	290,127,362	3,802,668	541,116	2,081	8,137,710	302,610,937
	494,677,076	6,430,518	918,975	2,081	13,401,349	515,429,999
Investment Expenses	(81,090,685)	(1,041,772)	(149,796)	—	(2,086,691)	(84,368,944)
Investment Administrative Expenses	(7,020,868)	(89,565)	(12,724)	—	(187,955)	(7,311,112)
Net Income from Investment Activity	406,565,523	5,299,181	756,455	2,081	11,126,703	423,749,943
Income from Securities Lending Activity						
Gross Income	1,420,187	18,245	2,623	—	36,545	1,477,600
Brokers' Rebates	(881,550)	(11,325)	(1,628)	—	(22,685)	(917,188)
Management Fees	(58,455)	(751)	(108)	—	(1,504)	(60,818)
Net Income from Securities Lending Activity	480,182	6,169	887	—	12,356	499,594
Total Investment Income	407,045,705	5,305,350	757,342	2,081	11,139,059	424,249,537
TOTAL ADDITIONS	1,221,084,034	33,638,097	2,287,119	351,185	156,712,433	1,414,072,868
DEDUCTIONS						
Benefits						
Retirement	1,117,724,808	21,365,130	—	336,642	—	1,139,426,580
Disability	93,391,297	1,296,750	—	—	—	94,688,047
Survivor	40,481,049	874,829	—	—	—	41,355,878
Death	—	—	2,364,642	—	—	2,364,642
Health Care Expenses	—	—	—	—	135,034,624	135,034,624
	1,251,597,154	23,536,709	2,364,642	336,642	135,034,624	1,412,869,771
Refunds and Lump Sum Payments	72,849,117	—	—	—	—	72,849,117
Net Transfers to Other Ohio Systems	3,411,620	—	—	—	—	3,411,620
Administrative Expenses	27,934,647	6,655	61,321	2,502	2,877,010	30,882,135
	104,195,384	6,655	61,321	2,502	2,877,010	107,142,872
TOTAL DEDUCTIONS	1,355,792,538	23,543,364	2,425,963	339,144	137,911,634	1,520,012,643
Net Increase (Decrease)	(134,708,504)	10,094,733	(138,844)	12,041	18,800,799	(105,939,775)
FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS						
Fiduciary Net Position, Beginning of Year*	14,337,756,829	180,963,382	25,631,031	212,757	463,810,679	15,008,374,678
Fiduciary Net Position Restricted For Pension	$ 14,203,048,325	$ 191,058,115	$ 25,492,187	$ 224,798	$ —	$ 14,419,823,425
Fiduciary Net Position Restricted For Other Postemployment Benefits	$ —	$ —	$ —	$ —	$ 482,611,478	$ 482,611,478
Fiduciary Net Position, End of Year	$ 14,203,048,325	$ 191,058,115	$ 25,492,187	$ 224,798	$ 482,611,478	$ 14,902,434,903

*FY2019 was restated to reflect GASB 87 implementation.
See accompanying notes to the financial statements.

Notes to Financial Statements June 30, 2020

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 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 less than 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, 2020, was $2,601.14. 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, 2020

	Units	Value
Pension Trust Fund	5,404,537	$ 14,057,962,842
Medicare B Fund	72,332	188,144,960
Death Benefits Fund	9,685	25,191,867
Health Care Fund	146,808	381,869,121
Total	**5,633,362**	**$ 14,653,168,790**

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, 2020

		Reserve Amount Totals
Employees' Savings Fund	$	3,497,764,629
Employers' Trust Fund		(1,663,124,757)
Annuity and Pension Reserve Fund		12,678,981,821
Survivors' Benefit Fund		388,813,210
Guarantee Fund		—
Expense Fund		—
Total	**$**	**14,902,434,903**

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 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.

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 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.

EMPLOYER AND EMPLOYEE MEMBERSHIP DATA (as of June 30, 2020)	
Employer Members	
Local	372
City	191
Educational Service Center	53
Village	49
Higher Education	15
Vocational/Technical	49
Community Schools	304
Other	18
Total	1,051
Employee Members and Retirees	
Retirees and Beneficiaries Currently Receiving Benefits	80,851
Inactive Employees Entitled to But Not Yet Receiving Benefits	5,654
Total	86,505
Active Employees	
Vested Active Employees	46,423
Non-vested Active Employees	110,156
Total	156,579

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.

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 FY2020, 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 $493.7 million and $352.3 million, respectively, in FY2020. The contribution amounts also include 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 FY2020, 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	13.15 %
Medicare B Fund	0.81 %
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 FY2020 was 71.49%, 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 FY2020 was zero. A health care surcharge on employers is collected for employees earning less than an actuarially determined minimum compensation amount, and is 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 FY2020, the minimum compensation level was established at $19,600. The surcharge accrued for FY2020 and included in employer contributions in the Statement of Changes in Fiduciary Net Position is $46.5 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, hierarchal 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 28, presents the fair value hierarchy of the SERS' investment portfolio as of June 30, 2020.

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.

INVESTMENTS AND SHORT-TERM HOLDINGS MEASURED AT FAIR VALUE

($ in thousands)

		Fair Value Measurements Using		
Investments by Fair Value Level	**6/30/2020**	**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	$ 568,805	$ 568,805	$ —	$ —
Certificates of Deposit	7,233	—	7,233	—
Foreign Obligations	317,341	5,240	312,101	—
Mortgage and Asset Backed	123,202	—	122,912	290
Municipal Obligations	31,300	—	31,300	—
US Agency Obligations	495,017	—	495,017	—
US Corporate Obligations	823,708	—	823,708	—
US Government	569,105	422,148	146,957	—
Total Debt Securities	2,935,711	996,193	1,939,228	290
Equity Securities				
Foreign Stocks	1,980,719	1,980,719	—	—
Commingled International Equity Funds	50,140	46,556	—	3,584
US Common & Preferred Stock	3,171,683	3,120,486	51,197	—
Total Equity Securities	5,202,542	5,147,761	51,197	3,584
Total Investments by Fair Value Level	$ 8,138,253	$ 6,143,954	$ 1,990,425	$ 3,874
Investments Measured at the net asset value (NAV)				
Commingled Bond Funds	$ 19,500			
Commingled International Equity Funds	1,566,135			
Hedge Funds	1,171,625			
Private Equity Funds	2,161,274			
Private Real Estate Funds	1,757,102			
Total Investments Measured at the NAV	6,675,636			
Total Investments Measured at Fair Value	$ 14,813,889			
Investment Derivative Instruments				
Foreign Fixed Derivatives	$ (5,291)	$ (1,891)	$ (3,400)	
Foreign Equity Derivatives	(223)	(223)	—	
US Equity Derivatives	14,361	14,361	—	
US Fixed Derivatives	(1,295)	(1,131)	(164)	
Total Investment Derivative Instruments	$ 7,552	$ 11,116	$ (3,564)	

INVESTMENTS MEASURED AT THE NET ASSET VALUE

($ in thousands)

Investments by Fair Value Level	6/30/2020	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Bond Funds[1]	$ 19,500	$ —	Monthly	1-10 Days
Commingled International Equity Funds[1]	1,566,135	—	Daily, Semi-Monthly, Monthly	1-120 Days
Hedge Funds				
Equity Long / Short[2]	191,548	—	Semi-Monthly, Monthly, Quarterly	9-45 Days
Event Driven[3]	193,514	—	Quarterly, Annually	60-90 Days
Multi-Strategy / Risk Focus[4]	370,001	—	Daily, Monthly	1-5 Days
Relative Value[5]	265,540	—	Quarterly	60-90 Days
Tactical Trading[6]	151,022	—	Monthly, Quarterly	5-60 Days
Private Equity Funds[7]	2,161,274	1,457,892	Not Eligible	Not Eligible
Private Real Estate Funds[7]	1,757,102	377,086	Not Eligible	Not Eligible
Total Investments Measured at the NAV	$ 6,675,636			

(1) *Commingled Bond Funds, Equity Funds and Real Estate Investment Funds* Three bond funds, 49 international 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) *Equity Long / Short Hedge Funds* Consisting of four funds, this strategy invests both long and short in US and global equity securities, with a goal of adding growth and minimizing market exposure. These investments are valued at NAV per share. Due to contractual lock-up restrictions, approximately 82% of the value of these investments are eligible for redemption in the next six months. The remaining 18% of the value of these investments remain restricted for the next 12 - 13 months.

(3) *Event Driven Hedge Funds* Consisting of seven 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 1% of these investments remains restricted through the next year.

(4) *Multi-Strategy / Risk Focus Hedge Funds* The five 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.

(5) *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 86% of these investments are eligible for redemption in the next 6 months. The remaining 14% of the value of these investments are eligible within the next 12 months.

(6) *Tactical Trading Hedge Funds* The primary focus of the three funds 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 75% of these investments are eligible for redemption in the next six months. The remaining 25% of the value of these investments are eligible within the next 7 to 15 months.

(7) *Private Equity and Real Estate Funds* SERS' Private Equity portfolio consists of 94 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 32 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 SERS' deposits. Therefore, SERS does not have a policy for deposit custodial credit risk.

At June 30, 2020, the carrying amounts of SERS' operating and investment cash deposits totaled $75,871,434, and the corresponding bank balances totaled $15,158,813. Of the bank balances, the Federal Deposit Insurance Corporation insured $453,155. In accordance with state law, bank balances of $160,957 were collateralized at 105% with securities held in the name of SERS' pledging financial institutions. The remaining bank deposits of $14,705,658 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, 2020, approximately $6.7 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 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, 2020, SERS held interest-only strips that had a total fair value of $48,234,911. 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 $7,316,943. 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+	$ 325
	A	87
	A-	23
	AA-	(4,001)
	BBB+	154
	BBB	(4)
	NR*	(193)
Total		(3,609)
US Fixed Derivatives	A	(3)
	BBB+	(12)
	BBB	(133)
	NR*	(1,131)
Total		(1,279)
Total		**$ (4,888)**

*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	$ 588,305	0.07
Certificates of Deposit	7,233	3.74
Foreign Obligations	312,325	5.98
Mortgage and Asset Backed	122,912	1.90
Municipal Obligations	31,300	1.00
US Agency Obligations	486,613	2.88
US Corporate Obligations	823,267	6.74
US Government	568,267	7.05
Total	**$ 2,940,222**	**4.48**

*Excludes Fixed 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	$530,631	$ 33,462	$ 10,829	$ —	$ 13,383	$ —	$ —	$ —	$ —	$ —	$ —	$ 588,305
Foreign Obligations	9,737	17,931	52,921	131,263	49,405	13,736	3,341	1,581	—	1,216	31,194	312,325
Mortgage and Asset Backed	48,547	26,038	6,039	6,793	638	1,791	811	1,052	—	278	30,925	122,912
Municipal Obligations	—	7,290	16,683	5,048	—	—	—	—	—	—	2,279	31,300
Negotiable Certificates of Deposit	—	—	6,981	252	—	—	—	—	—	—	—	7,233
US Agency	2,433	486,748	—	—	—	—	—	—	—	—	5,836	495,017
US Corporate Obligations	33,882	40,094	219,506	432,999	42,642	8,056	4,296	8	—	5	41,779	823,267
US Government	—	568,267	—	—	—	—	—	—	—	—	—	568,267
Total	$625,230	$1,179,830	$312,959	$576,355	$106,068	$23,583	$ 8,448	$2,641	$ —	$ 1,499	$112,013	$2,948,626

FAIR VALUE SUBJECT TO FOREIGN CURRENCY RISK *($ in thousands)*

Currency	Currency	Foreign Stocks	Foreign Fixed Income	High Yield and Emerging Markets Fixed Income	Foreign Commingling Equity
Argentinean Peso	$ 220	$ —	$ 247	$ —	$ —
Australian Dollar	190	62,224	—	—	—
Brazilian Real	54	44,089	416	1,907	—
British Pound	329	182,167	2,674	—	—
Canadian Dollar	130	84,056	293	—	—
Chinese Yuan	191	13,012	—	164	—
Colombian Peso	—	—	—	1,448	—
Czech Koruna	6	—	—	43	—
Danish Krone	1	46,111	—	—	—
Euro	875	267,039	2,421	505	—
Hong Kong Dollar	713	147,037	—	—	825
Hungarian Forint	2	1,198	—	—	—
Indian Rupee	—	35,296	—	—	—
Indonesian Rupiah	4	3,864	—	4,550	—
Israeli Shekel	282	1,999	—	—	—
Japanese Yen	2,184	267,194	21	—	—
Malaysian Ringgit	—	3,800	—	—	769
Mexican Peso	405	4,535	—	9,827	—
New Zealand Dollar	56	—	—	—	—
Norwegian Krone	95	5,703	—	—	—
Philippines Peso	—	2,694	—	—	—
Polish Zloty	13	4,358	1,459	—	—
Romanian Leu	—	—	376	—	—
Russian Ruble	411	53,808	—	7,095	—
Singapore Dollar	138	10,810	—	—	—
South African Rand	4	22,619	—	3,128	—
South Korean Won	53	125,350	—	—	—
Swedish Krona	2	13,757	—	—	—
Swiss Franc	147	100,280	—	—	—
Taiwan Dollar	119	38,269	—	—	—
Thailand Baht	—	4,155	—	—	—
Turkish Lira	10	12,734	—	280	—
United Arab Emirates Dirham	—	99	—	—	—
Uruguayan Peso	—	—	50	—	—
Vietnam Dong	—	535	—	—	—
	$ 6,634	$ 1,558,792	$ 7,957	$ 28,947	$ 1,594

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 who 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, 2020 and 2019 *($ in thousands)*

	FY2020	FY2019*
Forward Currency Purchases	$ 1,172,967	$ 1,491,605
Forward Currency Sales	1,171,269	1,489,966
Unrealized gain (loss)	(1,698)	(1,639)

*FY2019 restated for accuracy

SWAP CONTRACTS

As of June 30, 2020 and 2019 *($ in thousands)*

	FY2020		FY2019	
Type	Notional Value	Fair Value	Notional Value	Fair Value
Credit Default	$ 37,772	$ 131	$ 34,921	$ 391
Interest Rate	388,501	(3,679)	707,561	(2,632)
Zero Coupon	16,496	(16)	16,731	45

FUTURES CONTRACTS

As of June 30, 2020 and 2019 *($ in thousands)*

	FY2020			FY2019		
Type	Number of Contracts	Notional Value	Contract Value	Number of Contracts	Notional Value	Contract Value
Equity Features						
International Equity Index Futures - Long	358	$ 28,651	$ (223)	—	$ —	$ —
U.S. Stock Index Futures - Long	4,768	563,676	14,361	1,477	166,422	1,914
Fixed Income / Cash Equivalent Futures						
Cash Equivalent (Eurodollar) Futures - Long	216	46,303	803	466	113,313	(171)
Cash Equivalent (Eurodollar) Futures - Short	(378)	(94,312)	(402)	(166)	(62,915)	1,083
International Fixed Income Index Futures - Long	21	3,956	73	34	4,952	(316)
International Fixed Income Index Futures - Short	(193)	(47,077)	(346)	(146)	(37,910)	180
US Treasury Futures Long	738	122,430	666	1,183	204,268	(1,223)
US Treasury Futures Short	(3,213)	(534,012)	(1,504)	(712)	(86,423)	3,457
Total Futures (Net)	2,317	$ 89,615	$ 13,428	2,136	$ 301,707	$ 4,924

OPTIONS CONTRACTS						
As of June 30, 2020 and 2019 *($ in thousands)*	FY2020			FY2019		
Type	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	7,998,655	$ 7,999	$ 30	10,498,584	$ 10,499	$ 337
Fixed Income Call Options on Foreign Currency - Written	(3,250,000)	(3,250)	(351)	(23,390,000)	(23,390)	(56)
Fixed Income Put Options on Foreign Currency - Purchased	—	—	—	8,612,000	8,612	202
Fixed Income Put Options on Foreign Currency - Written	—	—	—	(31,340,000)	(31,340)	(189)
Fixed Income Call Options on Futures (non-dollar) - Purchased	—	—	—	592	1	52
Fixed Income Call Options on Futures (non-dollar) - Written	—	—	—	(187)	—	(60)
Fixed Income Put Options on Futures (non-dollar) - Purchased	—	—	—	411	—	44
Fixed Income Put Options on Futures (non-dollar) - Written	—	—	—	(1,417)	(1)	(120)
Fixed Income Call Options on US Futures - Written	(42)	—	(45)	—	—	—
Fixed Income Call Options on US Interest Rate Swap - Written	(22,300,000)	(22,300)	(153)	—	—	—
Fixed Income Put Options on US Futures - Written	(42)	—	(19)	—	—	—
Fixed Income Put Options on US Interest Rate Swap - Purchased	3,390,000	3,390	—	—	—	—
Fixed Income Put Options on US Interest Rate Swap - Written	(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 market value of domestic securities on loan and 105% of the market 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 $499,594 during FY2020.

At June 30, 2020, 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, 2020, 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 FY2020 were $153,287.

SECURITIES LENDING		
As of June 30, 2020 *($ in thousands)*	Fair Value of Securities on Loan	Collateral Value (Cash)
Foreign Stocks	$ 7,423	$ 7,814
US Common & Preferred Stock	61,378	62,302
US Corporate Obligations	5,257	5,149
	$ 74,058	$ 75,265

Commitments As of June 30, 2020, unfunded commitments related to the opportunistic, private equity, and real estate investments totaled $1.8 billion.

7. Capital Assets (Non-Investment Assets)

CAPITAL ASSETS ACTIVITY for the year ended June 30, 2020					
Cost:	**Land**	**Office Building & Improvements**	**Furniture & Equipment**	**Internally-Developed Software**	**Total Capital Assets**
Balances, June 30, 2019	$ 3,315,670	$ 53,789,199	$ 7,288,959	$ 34,979,428	$ 99,373,256
Additions	—	308,424	631,466	—	939,890
Disposals	—	—	—	—	—
Balances, June 30, 2020	3,315,670	54,097,623	7,920,425	34,979,428	100,313,146
Accumulated Depreciation:					
Balances, June 30, 2019	—	23,259,939	6,660,132	4,299,381	34,219,452
Additions	—	1,379,655	379,546	2,057,612	3,816,813
Disposals	—	—	—	—	—
Balances, June 30, 2020	—	24,639,594	7,039,678	6,356,993	38,036,265
Net Capital Assets, June 30, 2020	**$ 3,315,670**	**$ 29,458,029**	**$ 880,747**	**$ 28,622,435**	**$ 62,276,881**

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

The components of the net pension liability as of June 30, 2020:

Plan Funds	
Total Pension Liability (a)	$21,033,809,319
Fiduciary Net Position (b)	$14,419,598,627
Net Pension Liability (Surplus) (a) - (b)	$ 6,614,210,692
Fiduciary Net Position as a Percent of Total Pension Liability (b) / (a)	68.55 %

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 2130.

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 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%	1.85%
US Equity	22.50	5.75
International Equity	22.50	6.50
Fixed Income	19.00	2.85
Private Equity	12.00	7.60
Real Assets	17.00	6.60
Multi-Asset Strategies	5.00	6.65

Total pension liability was calculated using the discount rate of 7.50%. The discount rate determination does 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 24-year amortization period of the unfunded actuarial accrued liability. The actuarially determined contribution rate of FY2020 was 14%. Projected inflows from investment earnings were calculated using the long-term assumed investment rate of return (7.50%). 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 FY2020 was 2.91%.

Key Methods and Assumptions Used in Valuation of Total Pension Liability	
Valuation Date	June 30, 2020
Actuarial Cost Method	Entry Age Normal (Level Percent of Payroll)
Actuarial Assumptions:	
Experience Study Date	Period of 5 years ended June 30, 2015
Investment Rate of Return	7.50%, net of System expenses
Cost of Living Increases (COLA) or "Ad Hoc" COLA	2.50%, on and after April 1, 2018, COLA's for future retirees will be delayed for three years following commencement.
Future Salary Increases, Including Inflation	3.50% - 18.20%
Inflation	3.00%
Mortality Assumptions	For post-retirement mortality, the table used in evaluating allowances to be paid is the RP-2014 Blue Collar Mortality Table with fully generational projection and Scale BB, with 120% of male rates and 110% of female rates used. 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.

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 7.50%, 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 (6.50%), or one percentage point higher (8.50%) than the current rate.

Net Pension Liability Sensitivity to Changes in the Discount Rate	
1% Decrease (6.50%)	$ 9,060,660,994
Current Discount Rate (7.50%)	$ 6,614,210,692
1% Increase (8.50%)	$ 4,561,592,347

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
2018	$ 2,116,019	100%
2019	$ 2,157,149	100%
2020	$ 2,139,891	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 Statementsof Fiduciary Net Position and Statements of Changes in Fiduciary Net Position for the fiscal year ending June 30, 2020.

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 R.C. provides statutory authority for employer contributions. The employer rate allocated to post employment health care in the defined benefit plan and combined plan was 0% in calendar 2019. The portion of the employer rate allocated to post employment health care in the defined contribution plan was 4% in calendar 2019.

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 Comprehensive Annual 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, 2020, and 2019, $2,652,497, and $2,737,675, 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 FY2019 was $135,000, and the amount accrued in FY2020 was $200,000.

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 six 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*. During the current fiscal year, SERS was the lessor of eight third party lease contracts noted in the table on the following page. SERS recognized $625,045 in lease revenue and $115,977 in interest revenue during the current fiscal year related to lease payments. As of June 30, 2020, SERS' receivable for lease payments was $4,529,338. 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, 2020, the balance of the deferred inflow of resources was $4,186,525.

Leases							
Tenant Name	**Lease Start Date**	**Lease Term (months)**	**Monthly Receivable at 06/30/2020**	**FYTD Lease Revenue**	**FYTD Interest Revenue**	**Lease Receivable as of 06/30/2020**	**Deferred Inflow balance as of 06/30/2020**
ERA	11/01/2015	63	$ 4,687	$ 54,260	$ 1,516	$ 32,544	$ 28,699
Law Offices of Craig Scott	10/01/2014	88	4,287	48,375	2,611	80,596	68,003
Plunkett	05/01/2013	112	7,464	83,845	5,720	188,830	168,807
Poling	03/01/2017	180	25,325	208,825	82,794	3,277,611	3,046,405
Ribway	12/01/2016	63	7,379	82,240	4,623	144,479	128,296
Stratos	02/01/2018	60	6,466	71,160	5,762	197,335	188,376
The Doctors	10/01/2018	63	5,909	63,472	6,851	246,089	229,337
ZSG	11/01/2019	65	6,323	12,868	6,100	361,854	328,602
Totals			**$ 67,839**	**$ 625,045**	**$ 115,977**	**$ 4,529,338**	**$ 4,186,525**

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 have been dismissed, but creditors have sought 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.

Ohio Association of Public School Employees (OAPSE) v. School Employees Retirement System, et al. - On January 29, 2018, SERS was named as a defendant in a lawsuit filed by the Ohio Association of Public School Employees (OAPSE) pertaining to the SERS Board's October 9, 2017, decision to enact a three-year COLA suspension, as well as legislation that allows the Board to determine the number of anniversaries a new benefit recipient must achieve before they are eligible for their first COLA. SERS' actuary and the Ohio Attorney General's Office were also named as defendants.

OAPSE alleged that:

- SERS exceeded its statutory authority by adopting a three- year suspension instead of reviewing the COLA annually;
- The Ohio Legislature improperly delegated its lawmaking duties to SERS;
- The COLA provisions in HB 49 (makes the COLA discretionary) violate the One Subject Rule;
- The COLA suspension violates retirees' equal protection rights;
- COLA eligibility for new retirees contained in SB 8 violates the One Subject Rule; and
- The three-year COLA suspension was procured through fraud and misrepresentation on the part of SERS' management and its actuary.

OAPSE asked the Court to void the COLA suspension passed by the Board in October 2017, and declare that the COLA provisions contained in HB 49 and SB 8 are void and unenforceable. SERS filed a Motion to Dismiss OAPSE's lawsuit in March 2018. On April 2, 2019, the Franklin County Court of Common Pleas issued a Decision and Entry granting SERS' Motion to Dismiss (the Court also granted Motions to Dismiss filed by the other defendants in the case). On May 1, 2019, OAPSE appealed the Decision and Entry granting the Motions to Dismiss to the 10th District Court of Appeals. On May 21, 2020, the Court of Appeals affirmed the decision of the Court of Common Pleas. OAPSE did not appeal, therefore the case is closed.

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. 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. Mr. Adams filed a motion for summary judgment on December 23, 2019. SERS filed a motion for summary judgment on February 26, 2020. As to both motions for summary judgment, memoranda contra and reply briefs have been filed. In May of 2020, Mr. Adams filed a Motion for Leave to Amend Complaint and a Motion for Leave to Compel Discovery; as to both motions, memoranda contra and reply briefs have been filed. On July 24, 2020, Mr. Adams filed a Notice of Withdrawal of Motion for Leave to Amend 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, 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 3309of the Ohio Revised Code.

Plan Membership At June 30, 2020, SERS' Health Care Plans membership consisted of the following:

Plan Membership	
Currently Receiving Benefits:	
Retirees, or Their Beneficiaries	36,427
Inactive Members Entitled to But Not Yet Receiving Benefits	5,654
Active Members	156,579
Total	198,660

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, 2020, was 2.63%. The discount rate used to measure total OPEB liability prior to June 30, 2020, was 3.22%. 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 future benefit payments during the fiscal year ending June 30, 2034. However, since SERS' actuaries indicate the fiduciary net position is projected to be depleted at a future measurement date, the single equivalent interest rate is determined as 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 by the Fidelity General Obligation 20-year Municipal Bond Index rate of 2.45%, as of June 30, 2020 (i.e., municipal bond rate).

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 2010 through 2015, and was adopted by the Board on April 21, 2016. 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, 7.50%, 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.

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 %	1.85 %
US Equity	22.50	5.75
International Equity	22.50	6.50
Fixed Income	19.00	2.85
Private Equity	12.00	7.60
Real Assets	17.00	6.60
Multi-Asset Strategies	5.00	6.65

Net OPEB Liability of SERS The components of the net OPEB liability of SERS at June 30, 2020, were as follows:

Plan Funds	
Total OPEB Liability (a)	$ 2,655,938,750
Plan Fiduciary Net Position (b)	482,611,478
SERS' Net OPEB Liability (a) - (b)	$ 2,173,327,272
Plan Fiduciary Net Position as a Percent of Total OPEB Liability (b) / (a)	18.17 %

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 (1.63%)	Discount Rate (2.63%)	1% Increase (3.63%)
$2,660,098,587	$2,173,327,272	$1,786,344,923

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 (6.00% decreasing to 3.75%) and 1% higher (8.00% decreasing to 5.75%) than the current rate.

Net OPEB Liability		
1% Decrease (6.00% decreasing to 3.75%)	Health Care Cost Trend Rates (7.00% decreasing to 4.75%)	1% Increase (8.00% decreasing to 5.75%)
$1,711,329,871	$2,173,327,272	$2,791,136,035

Actuarial Assumptions The total OPEB liability was determined by an actuarial valuation as of June 30, 2020. The actuarial assumptions used in the valuation are based on results from the most recent actuarial experience study, which covered the five-year period ending June 30, 2015. The experience study report is dated April 2016.

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	7.50%
Price Inflation	3.00%
Wage Increases, Including Price Inflation	3.50% - 18.20%
Municipal Bond Index Rate	
Prior Measurement Date	3.13%
Measurement Date	2.45%
Year FNP is Projected to be Depleted	2034
Single Equivalent Interest Rate, Net of Plan Investment Expense, Including Price Inflation	
Prior Measurement Date	3.22%
Measurement Date	2.63%
Medical Trend Assumption	
Pre-Medicare	7.00% - 4.75%
Medicare	5.25% - 4.75%
Mortality	RP-2014 Blue Collar Mortality Table with fully generational projection and Scale BB, 120% of male rates and 110% of female rates. RP-2000 Disabled Mortality Table with 90% for male rates and 100% for female rates set back five years.

17. Recently Issued Accounting Pronouncements

The GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. The requirements of this Statement are effective for fiscal years ending on or after June 15, 2018. This Statement requires the measurement and recognition of a legally enforceable liability for retirement of an asset. The measurement of an asset retirement obligation is required to be based on the best estimate of the *current value* of outlays to be incurred. Additionally, the Statement requires that a deferred outflow of resources be measured at the amount of the corresponding liability upon initial measurement, and that the current value be adjusted for general inflation and deflation annually. Management has reviewed this Statement and determined SERS is not impacted.

The GASB issued Statement No. 84, *Fiduciary Activities*. The requirements for this Statement are effective for reporting periods ending on or after December 15, 2018. The focus of this Statement is on identifying fiduciary activities of all state and local governments. Activity meeting the criteria set forth in the Statement should be reported in a fiduciary fund in the basic financial statements. There are four fiduciary funds that should be reported, if applicable: pension trust funds, investment trust funds, private-purpose trust funds, and custodial funds. The requirements of this Statement are reflected in this report.

The GASB issued Statement No. 87, *Leases*. The requirements for this Statement are effective for financial statements beginning after December 15, 2019. 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. The requirements of this Statement are reflected in this report.

The 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, 2018. 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.

The GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period.* The requirements of this Statement are effective for reporting periods beginning after December 15, 2019. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which 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.

The GASB issued Statement No. 90, *Majority Equity Interests-An Amendment of GASB Statements No. 14 and No. 61*. The requirements for this Statement are effective for reporting periods beginning after December 15, 2018. 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.

The GASB issued Statement No. 91, *Conduit Debt Obligations*. The requirements of this Statement are effective for reporting periods beginning after December 15, 2020. 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 in not impacted at this time.

The GASB issued Statement No. 92, *Omnibus 2020.* The requirements related to the effective date of Statement 87 and Implementation Guide 2019-3, reinsurance recoveries, and terminology used to refer to derivative instruments are effective upon issuance. The requirements related to intra-entity transfers of assets and those related to the applicability of Statements 73 and 74 are effective for fiscal years beginning after June 15, 2020. The requirements related to application of Statement 84 to postemployment benefit arrangements and those related to nonrecurring fair value measurements of assets or liabilities are effective for reporting periods beginning after June 15, 2020. The requirements related to the measurement of liabilities (and assets, if any) associated with asset retirement obligations (AROs) in a government acquisition are effective for government acquisitions occurring in reporting periods beginning after June 15, 2020. 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 postemployment benefit (OPEB) plan.
- The applicability of Statement No. 73 as amended, and No 74 as amended, to reporting assets accumulated for postemployment benefits.
- The applicability of certain requirements of Statement No. 84 to postemployment 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.

The 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, 2020. The requirements in paragraph 11b is effective for reporting periods ending after December 31, 2021. The requirements in paragraphs 13 and 14 are effective for fiscal years periods beginning after June 15, 2021. 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. 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. The impact of the requirements of this Statement to SERS is still being determined by management.

The GASB Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements.* The requirements of this Statement are effective for fiscal years beginning after June 15, 2022. 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.

The GASB 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 previsions 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.

The GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*. The requirements of this Statement are effective for fiscal years beginning after June 15, 2021. 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.

The GASB 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 are effective as follows: The requirements in

(1) paragraph 4 of this Statement as it applies to defined contribution pension plans, defined contribution OPEB plans, and other employee benefit plans and (2) paragraph 5 of this Statement are effective immediately. The requirements in paragraph 6-9 of this Statement are effective for fiscal years beginning after June 15, 2021. All other requirements of this Statement are effective for reporting periods beginning after June 15, 2021. 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 postemployment 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.

Required Supplementary Pension Information

SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY[1]

	2020	2019	2018	2017	2016	2015	2014
Total pension liability							
Service Cost	$ 369,976,273	$ 355,452,912	$ 368,167,321	$ 335,918,449	$ 344,059,634	$ 338,060,547	$ 332,975,336
Interest	1,488,777,887	1,449,726,066	1,420,093,605	1,436,626,290	1,385,878,598	1,341,777,662	1,296,763,757
Benefit changes	—	—	(357,618,668)	(998,484,758)	—	—	—
Difference between expected and actual experience	1,562,953	60,411,674	286,313,613	275,031,424	50,307,199	78,749,615	53,951,305
Changes of assumptions	—	—	—	0	668,216,579	—	—
Benefit payments	(1,280,910,125)	(1,260,400,360)	(1,248,097,556)	(1,170,689,006)	(1,110,694,355)	(1,076,498,383)	(993,355,839)
Refunds of contributions	(72,849,117)	(75,639,810)	(59,575,036)	(60,692,833)	(70,340,495)	(60,635,651)	(55,668,466)
Net change in total pension liability	506,557,871	529,550,482	409,283,279	(182,290,434)	1,267,427,160	621,453,790	634,666,093
Total pension liability – beginning	20,527,251,448	19,997,700,966	19,588,417,687	19,770,708,121	18,503,280,961	17,881,827,171	17,247,161,078
Total pension liability – ending (a)	$21,033,809,319	$20,527,251,448	$19,997,700,966	$19,588,417,687	$19,770,708,121	$18,503,280,961	$17,881,827,171
Plan fiduciary net position							
Contributions – employer	$ 491,557,790	$ 464,683,489	$ 435,103,620	$ 467,796,738	$ 436,421,681	$ 395,804,105	$ 405,029,627
Contributions – member	352,343,063	345,212,684	324,842,074	336,627,658	314,325,716	303,866,076	295,690,550
Net investment income	413,108,397	831,584,377	1,242,021,081	1,613,368,560	106,543,126	441,455,552	1,888,288,396
Benefit payments	(1,280,910,125)	(1,260,400,360)	(1,248,097,556)	(1,170,689,006)	(1,110,694,355)	(1,076,498,383)	(993,355,839)
Administrative expense	(28,002,623)	(31,880,024)	(26,993,893)	(24,403,350)	(21,808,880)	(19,305,477)	(19,582,190)
Refunds of contributions	(72,849,117)	(75,639,810)	(59,575,036)	(60,692,833)	(70,340,495)	(60,635,651)	(55,668,466)
Other	—	—	—	—	0	1,874,997	—
Net change in plan fiduciary net position	(124,752,615)	273,560,356	667,300,290	1,162,007,767	(345,553,207)	(13,438,781)	1,520,402,078
Plan fiduciary net position – beginning	14,544,351,242 *	14,270,515,748	13,603,215,458 *	12,451,630,823	12,797,184,030	12,810,622,811 *	11,300,482,029
Plan fiduciary net position – ending (b)	14,419,598,627	14,544,076,104 *	14,270,515,748	13,613,638,590 *	12,451,630,823	12,797,184,030	12,820,884,107 *
Net pension liability – ending (a) – (b)	$6,614,210,692	$5,983,175,344	$5,727,185,218	$5,974,779,097	$ 7,319,077,298	$5,706,096,931	$5,060,943,064

[1] The effort and cost to re-create financial statement information for the previous four 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.

SCHEDULE OF THE NET PENSION LIABILITY[1] *($ in millions)*

	2020	2019	2018	2017	2016	2015	2014
Total pension liability	$ 21,034	$ 20,527	$ 19,998	$ 19,588	$ 19,771	$ 18,503	$ 17,882
Plan fiduciary net position	14,420	14,544	14,271	13,614	12,452	12,797	12,821
Net pension liability	$ 6,614	$ 5,983	$ 5,727	$ 5,974	$ 7,319	$ 5,706	$ 5,061
Ratio of plan fiduciary net position to total pension liability	68.55 %	70.85 %	71.36 %	69.50 %	62.98 %	69.16 %	71.70 %
Covered payroll	$ 3,478	$ 3,463	$ 3,332	$ 3,303	$ 2,932	$ 2,845	$ 2,922
Net pension liability as a percentage of covered payroll	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 four 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)*

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined employer contribution	$ 491.6	$ 464.7	$ 435.1	$ 467.8	$ 436.4	$ 397.7	$ 402.0	$ 402.2	$ 399.7	$ 379.3
Actual employer contributions	491.6	464.7	435.1	467.8	436.4	397.7	402.0	402.2	399.7	379.3
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	$3,477.6	$3,462.5	$3,332.4	$3,302.8	$2,932.2	$2,845.4	$2,922.3	$2,905.7	$2,971.9	$3,017.5
Actual contributions as a percentage of covered payroll	14.14 %	13.42 %	13.06 %	14.16 %	14.88 %	13.98 %	13.76 %	13.84 %	13.45 %	12.57 %

SCHEDULE OF INVESTMENT RETURNS[1]

Year ended June 30	2020	2019	2018	2017	2016	2015	2014
Annual money weighted rate of return, net of investment expense	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 four 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.

Notes to Required Supplementary Pension Information June 30, 2020

Changes of Benefit Terms

No changes of benefit terms were implemented in FY2020.

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 the Board under HB 49, the Board has enacted a three-year COLA suspension for benefit recipients in calendar years 2018, 2019, and 2020.

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, 2019 actuarial valuation) were used to determine the Actuarially Determined Contribution reported for FY2020 in the Schedule of Employer Contributions:

Actuarial cost method:	Entry age normal
Amortization method:	Level percent of payroll
Remaining amortization period:	25 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]

	2020	2019	2018	2017
Total OPEB liability				
Service Cost	$ 164,641,764	$ 160,601,083	$ 155,385,800	$ 178,649,865
Interest	94,783,974	117,411,967	109,982,145	101,409,264
Benefit changes	—	—	—	—
Difference between expected and actual experience	(772,465,329)	(653,300,118)	53,656,583	—
Changes of assumptions	260,375,382	217,194,383	(102,900,217)	(295,667,088)
Benefit payments*	(69,997,414)	(73,206,711)	(72,071,363)	(86,257,389)
Net change in total OPEB liability	(322,661,623)	(231,299,396)	144,052,948	(101,865,348)
Total OPEB liability - beginning	2,978,600,373	3,209,899,769	3,065,846,821	3,167,712,169
Total OPEB liability - ending (a)	$ 2,655,938,750	$ 2,978,600,373	$ 3,209,899,769	$ 3,065,846,821
Plan fiduciary net position				
Contributions - employer	$ 80,536,164	$ 81,944,848	$ 100,056,736	$ 65,013,891
Net investment income	11,139,059	22,009,627	28,167,652	35,730,747
Benefit payments*	(69,997,414)	(73,206,711)	(72,071,363)	(86,257,389)
Administrative expense	(2,877,010)	(2,566,722)	(2,632,948)	(2,582,204)
Other	—	—	—	—
Net change in plan fiduciary net position	18,800,799	28,181,042	53,520,077	11,905,045
Plan fiduciary net position - beginning	463,810,679	435,629,637	382,109,560	370,204,515
Plan fiduciary net position - ending (b)	482,611,478	463,810,679	435,629,637	382,109,560
Net OPEB liability - ending (a) - (b)	$ 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]

	2020	2019	2018	2017
Total OPEB liability	$ 2,655,938,750	$ 2,978,600,373	$ 3,209,899,769	$ 3,065,846,821
Plan fiduciary net position	482,611,478	463,810,679	435,629,637	382,109,560
Net OPEB liability	$ 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	18.17 %	15.57 %	13.57 %	12.46 %
Covered payroll	$ 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	62.50 %	72.63 %	83.25 %	81.25 %

[1]Additional years will be added to the schedule as they become available.

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

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined employer contribution	$ 161.0	$ 190.1	$ 189.4	$ 178.0	$ 161.6	$ 164.2	$ 190.4	$ 171.4	$ 155.9	$ 169.1
Actual employer contributions	80.5	81.9	100.1	65.0	77.3	89.0	75.3	45.5	56.5	86.9
Annual contribution deficiency (excess)	$ 80.5	$ 108.2	$ 89.3	$ 113.0	$ 84.3	$ 75.2	$ 115.1	$ 125.9	$ 99.4	$ 82.2
Covered payroll	$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	$2,852.4
Actual contributions as a percentage of covered payroll	2.32 %	2.37 %	3.00 %	1.97 %	2.64 %	3.13 %	2.73 %	1.66 %	2.03 %	3.05 %

SCHEDULE OF INVESTMENT RETURNS - OPEB[1]				
Year ended June 30	**2020**	**2019**	**2018**	**2017**
Annual money weighted rate of return, net of investment expense	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.

Notes to Required Supplementary Health Care Information June 30, 2020

Changes of Benefit and Funding Terms

No changes of benefit or funding terms were implemented in FY2020.

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, 2019 actuarial valuation) were used to determine the Actuarially Determined Contribution reported for FY2020 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:	Market value
Price inflation:	3.00%
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

Schedule of SERS' Proportionate Share of the Net Pension Liability
Ohio Public Employees Retirement Plan - Traditional Pension Plan

Last 10 Fiscal Years*	2020	2019	2018	2017	2016	2015
SERS' proportion of the net pension liability (asset)	0.0923731%	0.0958985%	0.0973540%	0.0956142%	0.0937745%	0.0925739%
SERS' proportionate share of the net pension liability (asset)	$18,258,172	$26,288,404	$15,272,959	$21,712,365	$16,242,931	$11,165,446
SERS' covered payroll	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	140%	203%	128%	205%	162%	115%
Plan fiduciary net position as a % of the total pension liability	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 they become available.

Schedule of SERS' Proportionate Share of the Net Pension Liability
Ohio Public Employees Retirement Plan - Combined Pension Plan

Last 10 Fiscal Years*	2020	2019	2018	2017	2016	2015
SERS' proportion of the net pension liability (asset)	0.1942455 %	0.0217249 %	0.2256010 %	0.2277590 %	0.2364605 %	0.2391363 %
SERS' proportionate share of the net pension liability (asset)	$ (405,048)	$ (242,933)	$ (307,116)	$ (126,764)	$ (115,067)	$ (92,073)
SERS' covered payroll	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	(47%)	(26%)	(36%)	(17%)	(16%)	(12%)
Plan fiduciary net position as a % of the total pension liability	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 they become available.

Schedule of Contributions
Ohio Public Employees Retirement Plan - Traditional Pension Plan

Last 10 Fiscal Years*	2020	2019	2018	2017	2016	2015
Contractually required contribution	$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	1,819,551	1,781,661	1,616,321	1,517,599	1,457,881	1,361,957
Contribution deficiency (excess)	—	—	—	—	—	—
SERS' covered payroll	$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%

*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 they become available.

Schedule of Contributions
Ohio Public Employees Retirement Plan - Combined Pension Plan

Last 10 Fiscal Years*	2020	2019	2018	2017	2016	2015
Contractually required contribution	$ 121,057	$ 127,825	$ 116,006	$ 110,430	$ 109,964	$ 104,896
Contributions in relation to the contractually required contribution	121,057	127,825	116,006	110,430	109,964	104,896
Contribution deficiency (excess)	—	—	—	—	—	—
SERS' covered payroll	$ 864,788	$ 913,034	$ 828,612	$ 788,786	$ 785,457	$ 760,728
Contributions as a % of covered payroll	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 they become 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*	**2020**	**2019**	**2018**	**2017**
SERS' proportion of the net OPEB liability	0.1014843 %	0.0104825 %	0.1060842 %	0.1047274 %
SERS' proportionate share of the net OPEB liability	$ 14,017,613	$ 13,666,743	$ 11,519,966	$ 10,577,819
SERS' covered payroll	417,675	375,863	1,338,357	2,243,369
SERS' proportionate share of the net OPEB liability as a % of its covered payroll	3,356 %	3,636 %	861 %	472 %
Plan fiduciary net position as a % of the total OPEB liability	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*	**2020**	**2019**	**2018**	**2017**
Contractually required contribution	$ 58,824	$ 125,775	$ 262,029	$ 295,539
Contributions in relation to the contractually required contribution	58,824	125,775	262,029	295,539
Contribution deficiency (excess)	—	—	—	—
SERS' covered payroll	$ 417,722	$ 898,395	$ 1,871,633	$ 2,110,993
Contributions as a % of covered payroll	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, 2020

	General Expenses	Investment Related Expenses	Total
Personnel Services			
Salaries	$ 13,401,813	$ 2,655,125 *	$ 16,056,938
Retirement Contributions	4,256,294	324,376	4,580,670
Insurance	2,734,085	293,627	3,027,712
Total Personnel Services	20,392,192	3,273,128	23,665,320
Professional Services			
Actuarial Advisors	274,134	—	274,134
Audit Services	217,402	—	217,402
Custodial Banking	161,913	944,702	1,106,615
Master Recordkeeper	—	—	—
Investment Related Consulting	56,044	2,686,319	2,742,363
Medical	40,000	—	40,000
Technical	1,551,014	308,754	1,859,768
Total Professional Services	2,300,507	3,939,775	6,240,282
Communications			
Postage	487,260	—	487,260
Telecommunications Services	200,061	—	200,061
Member / Employer Education	23,001	—	23,001
Printing and Publication	122,683	—	122,683
Total Communications	833,005	—	833,005
Other Services			
Computer Support Services	1,821,004	—	1,821,004
Office Equipment and Supplies	148,493	334	148,827
Training	128,616	6,668	135,284
Transportation and Travel	79,195	28,514	107,709
Memberships and Subscriptions	95,128	62,561	157,690
Property and Fiduciary Insurance	354,938	—	354,938
Facilities Expense	652,790	—	652,790
Maintenance	76,181	—	76,181
Staff Support	131,236	132	131,368
Ohio Retirement Study Council	42,200	—	42,200
Miscellaneous	9,835	—	9,835
Total Other Services	3,539,617	98,209	3,637,826
Total Administrative Expenses before Depreciation	27,065,322	7,311,112	34,376,433
Depreciation			
Furniture and Equipment	2,437,158	—	2,437,158
Building	1,379,655	—	1,379,655
Total Depreciation	3,816,813	—	3,816,813
Total Administrative Expenses	$ 30,882,135	$ 7,311,112	$ 38,193,247

*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, 2020

Description of Expenses	Net Assets Under Management	Direct Fees
US Equity	$ 3,601,387,201	$ 7,820,600
Non-US Equity	3,015,264,022	13,072,043
Global Private Equity	1,539,531,294	14,157,456
Global Fixed Income	2,508,339,669	4,825,248
Multi-Asset Strategies	1,043,784,599	13,142,883
Global Real Assets	2,271,514,190	19,173,359
Opportunistic Investments	374,380,293	5,507,344
Cash Equivalents	298,919,649	6,670,011
Total Investment Management Fees		$ 84,368,944
Custody Service Fees		944,702
Master Recordkeeper Fees		1,062,452
Investment Consulting and Performance/Analytics Fees		1,623,867
Investment Administrative Expenses		3,680,091
Total Other Investment Expenses		7,311,112
Total Investment Expenses		$ 91,680,056

Schedule of Payments to Consultants

SERS paid the following non-investment related consulting fees in FY2020:

Actuarial Advisors	$ 274,134
Audit Services	217,402
Legal Counsel	221,288
Medical Consultant	40,000
Information Technology Consultants	654,711
Health Care Consultants	118,000
Other Consultants	774,972
Total	$ 2,300,507

See accompanying independent auditor's report.

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Investment Section

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
300 E. BROAD ST., SUITE 100 • COLUMBUS, OHIO 43215-3746
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RICHARD STENSRUD
Executive Director

KAREN ROGGENKAMP
Deputy Executive Director

December 10, 2020

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 Comprehensive Annual Financial Report for the year ended June 30, 2020. 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 market environment was exceptionally turbulent in the second half of FY2020 due to the shutdown as a response to the COVID pandemic. Equity markets fell more than 30% in Q1 2020 before staging a recovery helped by monetary and fiscal stimulus of unprecedented scale. The Fed fund rate was cut from 1.8% to zero and Congress passed a $2 trillion dollar package of benefits to the unemployed and small businesses. The economy contracted sharply in the first half of 2020 and is expected to return to positive growth beginning in Q3 2020.

SERS' total fund generated a net return of 3.0% in FY2020, trailing the policy benchmark by 0.7%. Fixed Income recorded the highest net return at 8.6%, followed by U.S. Equity at 7.6%, and Real Assets at 4.2%. Real Assets and Private Equity returns were impacted by markdowns as a result of the economic downturn, but are expected to recover from Q3 onwards. Non-US equity, Multi Asset Strategies and the Opportunistic Portfolio had negative returns for the fiscal year. Despite the underperformance in FY2020, Total Fund returns exceed the policy benchmark over 5 and 10 years. The 5-year net return of 6.6% exceeded the policy benchmark by 0.4%, while the 10-year net return of 8.6% exceeded the benchmark by 0.4%. The implementation of the investment program has added value to the fund over 5 and 10-year periods and the 10-year return exceeds 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.

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 7.5%.

INVESTMENT STRATEGIES

Asset Allocation The most recent adjustment was made during FY2013 to reduce multi-asset strategies from 15% to 10% with a corresponding increase in real assets. No changes to the asset allocation were made in FY2019. On June 30, 2020, SERS' asset allocation and its corresponding benchmarks were as follows:

Asset Class	Policy	Benchmark
Global Equities	45%	50% Russell 3000 Index; 50% MSCI ACWI ex-US Index (net dividends)
Global Private Equity	10%	Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
Global Fixed Income	19%	Bloomberg Barclays Capital US Aggregate Bond Index
Global Real Assets	15%	NCREIF Property Index (one quarter in arrears)
Cash Equivalents	1%	Citigroup 30-day T-Bill Index
Strategy		**Benchmark**
Multi-Asset Strategies	10%	HFRI Fund of Funds Composite Index plus 1.0%
Opportunistic Investments	0%	Total Fund Benchmark Return

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.

SERS' multi-asset strategies consultant, Aksia LLC, assists the Staff with the construction and diversification of SERS' multi-asset strategies portfolio and the selection of multi-asset strategies managers. 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 experienced increased volatility primarily caused by the coronavirus pandemic. After the Russell 3000 produced a 31% calendar year 2019 US return and the Non-US markets posted a 21.5% return, COVID-19 fears began surfacing in early 2020 sending markets tumbling. Government support, led by the United States, quickly responded triggering global equity markets to rebound sharply during the second quarter of 2020. The result was a FY2020 US market return of 6.5% for the broad Russell 3000 Index, which outperformed Non-US markets with a (4.8%) return.

During the fiscal year, the US Equity portfolio generated net returns of 7.6%, which outperformed the Russell 3000 index benchmark by 1.1%. This out performance was driven by SERS' large cap passive portfolio outperforming the Russell 3000 by 2.2%. After several years of active large cap underperformance, SERS moved to a mainly passive large cap portfolio divided into passive large core and passive large growth. The addition of passive large growth was helpful as large growth was the best style exposure for FY2020 posting a 23.3% return. US small cap equities detracted from performance in FY2020 with the Russell 2000 index returning (6.6%) versus the Russell 1000 large cap index returning 7.5%. However, SERS' all active small cap portfolio had a (0.3%) net return exceeding its Russell 2000 index by 6.3%.

The Non-US Equity portfolio lost a net 2.5% for FY2020. Although the absolute return was poor, SERS Non-US Equity portfolio posted good relative performance exceeding the MSCI ACWI ex-US benchmark by 2.3%. Just like in US Equity, large growth was the best performer in Non-US Equity with an index return of 5.8%. SERS' core ACWI ex-US mandate did well posting a return of (2.8%) compared to its benchmark return of (4.8%). The emerging market portfolio returned 1.7% exceeding its benchmark by 5.1%, which was additive to performance.

Global Private Equity

Despite growing macroeconomic and political uncertainty across all markets globally, the private equity industry marched on during 2019. Private equity firms continued to invest, exit companies, raise capital, and generate solid returns while at the same time navigating the challenges of a high valuation environment. Many PE firms took advantage of the higher prices and moved toward the exits before any impending recession. Fundraising continued to be strong but was skewed by larger firms raising capital. Although returns are still attractive, they continue to come under pressure as the industry matures and competition intensifies. Taking a closer look, the total number of platform companies purchased in 2019 came in at around 3,500 transactions globally totaling approximately $551 billion. Both the value and number of these purchases remained relatively flat from the previous year. The large amount of deal flow is a direct result of the abundance of low-cost debt financing and the estimated $2.5 trillion of capital available for investment across all fund types and geographies, commonly referred to as "dry powder." The intense competition for assets has led to increased 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 2008 to an average of 11.5 times earnings in 2019. Nevertheless, the same factors that complicated dealmaking paved the way for an excellent exit market for private equity funds in 2019. Exits slowed a bit in 2019 to 1,078 exit transactions valued at $405 billion but was still a solid contributor to the strong 6-year stretch of exits that have produced significant levels of distributions for investors. The continued positive momentum for private equity produced an abundant fundraising market and private equity backed funds raised a record $894 billion in 2019. Buyout funds led the way closing on over $361 billion of new commitments, however, this total was aided by the number of large and mega buyout funds raised during the year. The level of investment activity at increased purchase valuations and steady uplift in dry powder once again underscores the importance of identifying and backing high quality private equity managers that remain disciplined in their process, due diligence and selection criteria throughout investment cycles. SERS' Private Equity portfolio generated a net return of 2.6% for FY2020 exceeding its benchmark by .7%.

Global Fixed Income

Fixed income underperformed the benchmark by (0.2%) during fiscal year 2020. The allocations to emerging market debt and high yield were the most significant detractors due to their higher sensitivity to slowing economic growth. The Federal Reserve has been very quick to respond to the public health crisis caused by COVID-19 by lowering interest rates significantly to the lower bound of 0% - 0.25%, restarting quantitative easing, introducing special credit and lending facilities and Congress passing over $2 trillion for the CARES Act and Paycheck Protection Program. US Treasuries were the biggest beneficiary of the Fed's lowering interest rates earning 10.45%, but several fixed income sectors recovered quickly throughout Q2 2020 with US investment grade corporates returning 9.5%, US mortgages increasing 5.7% and both US high yield and emerging market debt local currency got back to 0% for one year by June 30, 2020.

Multi-Asset Strategies

The MAS portfolio returned net (.4%) compared to the custom benchmark return of 1.1% underperforming the benchmark by (1.4%). Losses in the portfolio were driven by global macro, alternative risk premia, and event driven strategies while relative value and long/short equity strategies outperformed. Among the sector indices, the equity long/short sector performed best at 0.8% with gains led by technology and health care-focused strategies while fundamental value, energy, and market neutral produced losses. The macro sector had a 0.7% return with gains in discretionary, currency, and commodity strategies, and losses in systematic diversified. Two sectors, Event driven and Relative Value, produced returns of (4.9%) and (2.4%), respectively. The losses in event driven sub-sectors were widely distributed across activist, distressed, and arbitrage strategies. Relative value experienced losses in asset backed, sovereign, volatility, and credit strategies. The MAS portfolio will be liquidated in FY2021 due to low performance over the last several years.

Global Real Assets

During the fiscal year, market conditions and fundamentals were favorable for both commercial real estate and infrastructure assets until the COVID-19 pandemic hurt the economy. Most real estate property types continued to collect a high percentage of rents during the pandemic. However, real estate returns for the FY2020 moderated to lower than long-term average levels of 7 - 9%, with expectations that returns going forward will continue to be below long-term averages because of the uncertainty surrounding the COVID-19 pandemic. Infrastructure assets continued to perform well over the long term but the transportation assets were severely impacted by the global slowdown created from COVID-19. Going forward, infrastructure and real estate total returns will be driven by income returns. Cash yield continues to be the focus for the asset class, which produced a one-year income return in excess of 4% gross of fees.

Opportunistic and Investments

The Opportunistic portfolio returned (7.7%) net of fees. Portfolio performance was negatively impacted by the fallout from the coronavirus as credit spreads widened and equity prices fell in the first half of 2020. However, managers were able to take advantage of the dislocation, putting new capital to work at attractive valuations. 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%, giving staff flexibility to invest only when market conditions present attractive opportunities. SERS made five opportunistic investments in FY2020, committing a total of $415 million, including three commitments to direct lending funds, a commitment to a distressed debt fund, and a commitment to a structured credit fund.

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 FY2020 the short-term cash returned 1.6% net, outperforming the Citigroup 30-day T-Bill Index by .2%. As of June 30, 2020, the weight of cash equivalents was 2.0% of the Total Fund.

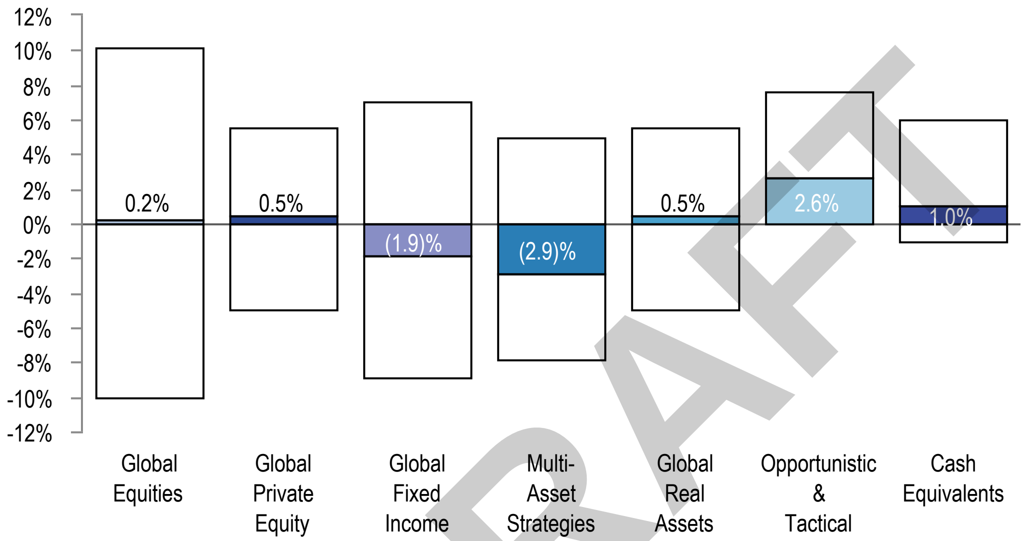
Overlay Program

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 FY2020, the overlay program incurred losses, detracting .2% from 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.

Investment Summary as of June 30, 2020

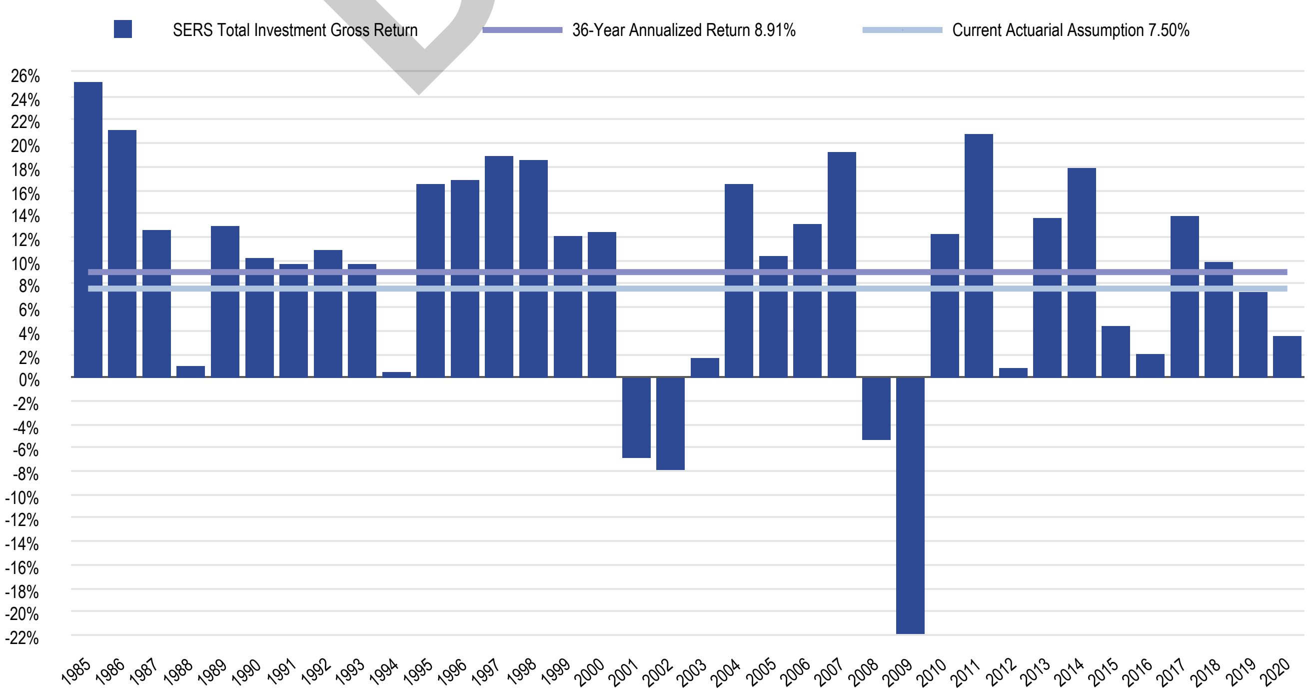
		Fair Value	% of Fair Value	Policy	Range
Global Equities	$	6,616,651,223	45.2 %	45.0 %	35% - 55%
Global Private Equity		1,539,531,294	10.5	10.0	5 - 15
Global Fixed Income		2,508,339,669	17.1	19.0	12 - 26
Multi-Asset Strategies		1,043,784,599	7.1	10.0	5 - 15
Global Real Assets		2,271,514,190	15.5	15.0	10 - 20
Opportunistic		374,380,293	2.6	0.0	0 - 5
Cash Equivalents		298,919,649	2.0	1.0	0 - 5
Total Portfolio	**$**	**14,653,120,917**	**100.0 %**	**100.0 %**	

Asset Allocation vs. Policy

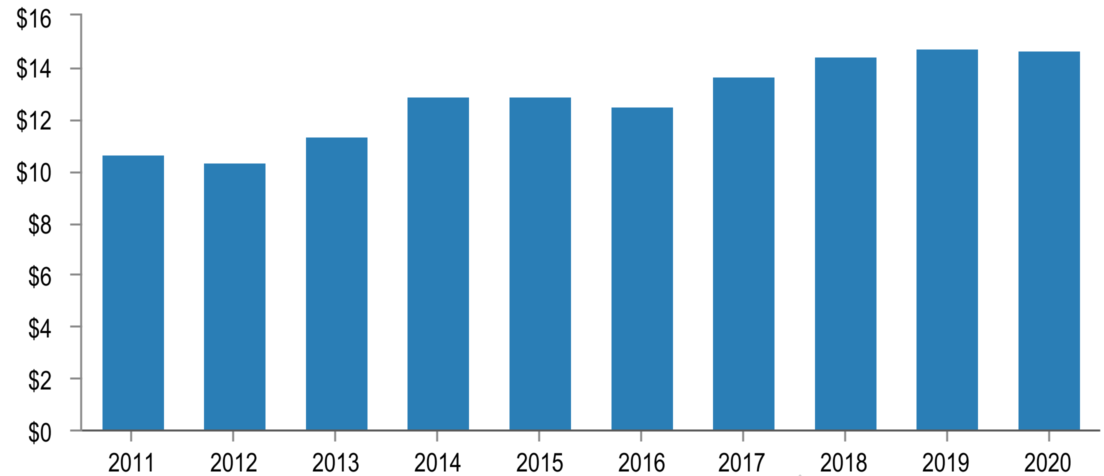


Note: Boxes represent permissible ranges around target weights.

SERS Total Investment Return (Gross of Fees)



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



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

	2020	2019	2018	Annualized Rates of Return: 3 Years	5 Years	10 Years
Global Equities						
SERS	3.0 %	5.0 %	11.3 %	6.4 %	7.0 %	10.1 %
Custom Global Equities Benchmark (1)	0.8	5.2	11.0	5.6	6.2	9.3
Global Private Equity						
SERS (2)	4.0	16.7	21.3	13.8	14.5	16.3
Custom Global Private Equity Benchmark (3)	1.9	10.3	16.3	10.0	9.8	12.7
Global Fixed Income						
SERS	8.8	8.3	0.1	5.7	4.9	5.0
Barclays Capital US Aggregate Bond Index	8.7	7.9	(0.4)	5.3	4.3	3.8
Multi-Asset Strategies						
SERS (4)	0.9	4.3	5.4	3.5	3.5	5.5
Custom Multi-Asset Strategies Benchmark (5)	1.1	2.4	6.5	3.1	2.5	3.5
Global Real Assets						
SERS (6)	5.0	10.5	10.9	8.8	9.7	12.0
Custom Global Real Assets Benchmark (7)	5.3	6.8	7.1	6.4	7.7	10.2
Opportunistic						
SERS (8)	(6.1)	7.1	13.0	4.4	5.0	n/a
Policy Benchmark (9)	3.7	6.5	8.3	6.2	6.2	n/a
Cash Equivalents						
SERS	0.8	5.1	2.3	2.7	2.5	1.4
Citigroup 30 Day Treasury Bill Index	1.4	2.3	1.3	1.6	1.1	0.6
Total Fund (Gross of Fees)						
SERS	3.6	7.3	9.9	6.9	7.3	9.3
Policy Benchmark (9)	3.7	6.5	8.3	6.2	6.2	8.1
Total Fund (Net of Fees)						
SERS	3.0	6.6	9.2	6.2	6.6	8.6
Policy Benchmark (9)	3.7	6.5	8.3	6.2	6.2	8.1

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. Market value adjustments made to global private equity, global real assets, opportunistic, and multi-asset strategies 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, 2014
  50.0% Russell 3000 Index
  50.0% MSCI ACWI ex-US (net dividends) Index
- b) Effective July 1, 2013
  50.0% Russell 3000 Index
  50.0% MSCI ACWI ex-US (net dividends) Index (developed markets 50% hedged)
- c) 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

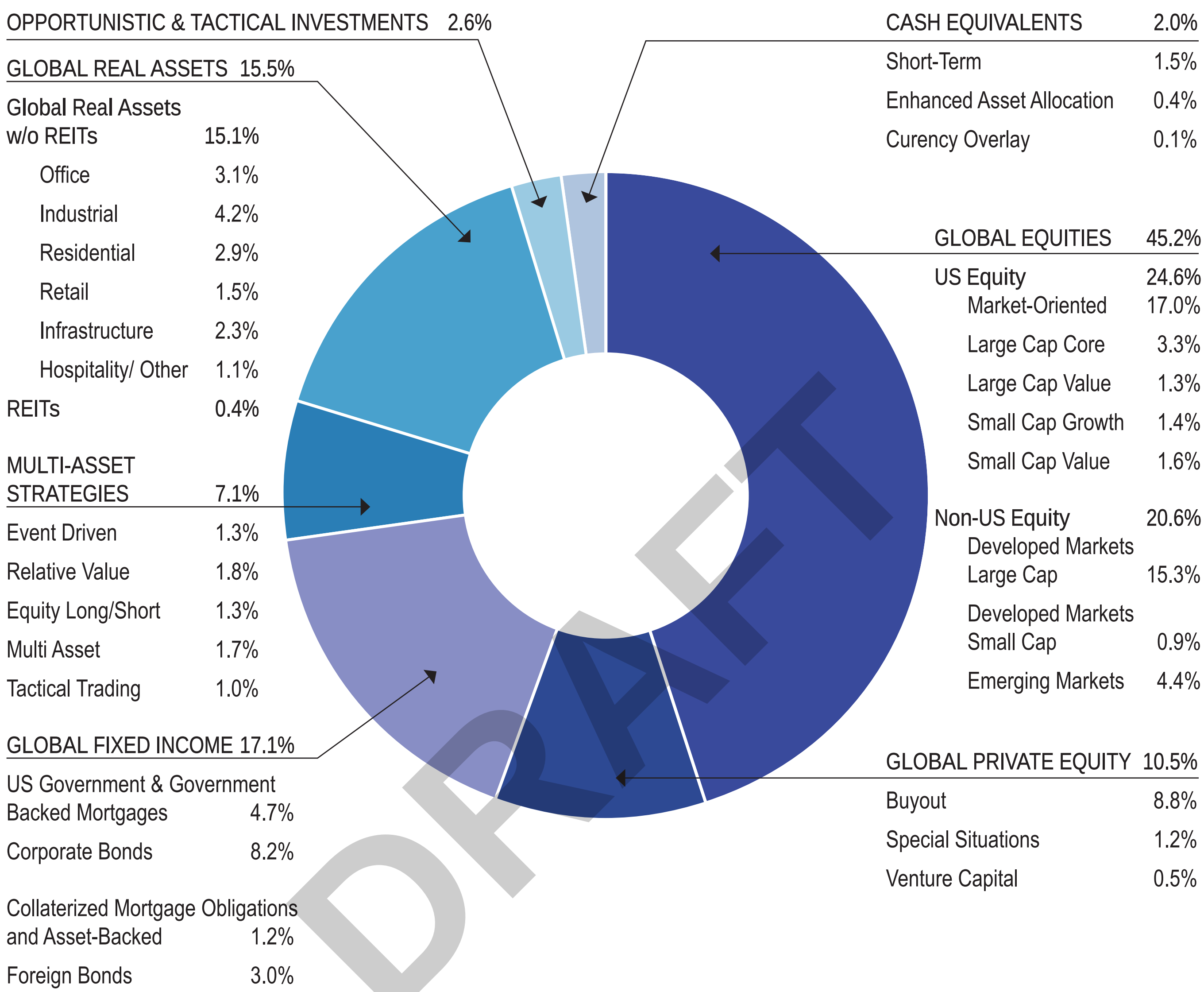
(6) Global Real Asset partnership returns are reported one quarter in arrears. Public real asset returns are reported in the current quarter.

(7) Custom Global Real Assets Benchmark:
- a) Effective July 1, 2010 NCREIF Property Index (one quarter in arrears)

(8) Opportunistic Investments inception date occurred in June 2013.

(9) SERS Policy Benchmark weightings for the past 10 years:
- a) Effective January 1, 2016
  22.5% Russell 3000 Index
  22.5% MSCI ACWI ex-US (net dividends) Index
  19.0% Barclays Capital US Aggregate Bond Index
  15.0% NCREIF Property Index (one quarter in arrears)
  10.0% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
  10.0% HFRI Fund of Funds Composite Index + 1.0%
  1.0% Citigroup 30 Day T-Bill Index
- b) Effective January 1, 2015
  22.5% Russell 3000 Index
  19.0% Barclays Capital US Aggregate Bond Index
  12.0% NCREIF Property Index (one quarter in arrears)
  10.0% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
  13.0% HFRI Fund of Funds Composite Index + 1.0%
  1.0% Citigroup 30 Day T-Bill Index
- c) Effective July 1, 2014
  22.5% Russell 3000 Index
  22.5% MSCI ACWI ex-US (net dividends) Index
  19.0% Barclays Capital US Aggregate Bond Index
  15.0% NCREIF Property Index (one quarter in arrears)
  10.0% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
  10.0% HFRI Fund of Funds Composite Index + 1.0%
  1.0% Citigroup 30 Day T-Bill Index
- d) Effective January 1, 2014
  22.5% Russell 3000 Index
  22.5% MSCI ACWI ex-US (net dividends) Index
  19.0% Barclays Capital US Aggregate Bond Index
  12.0% NCREIF Property Index (one quarter in arrears)
  10.0% Burgiss All Private Equity Benchmark (BAPE) (one quarter in arrears)
  13.0% HFRI Fund of Funds Composite Index + 1.0%
  1.0% Citigroup 30 Day T-Bill Index
- e) Effective July 1, 2013
  22.5% Russell 3000 Index
  22.5% MSCI ACWI ex-US (net dividends) Index (developed markets 50% hedged)
  19.0% Barclays Capital US Aggregate Bond Index
  12.0% NCREIF Property Index (one quarter in arrears)
  10.0% SERS Custom Private Equity Benchmark
  13.0% HFRI Fund of Funds Composite Index + 1.0%
  1.0% Citigroup 30 Day T-Bill Index
- f) Effective July 1, 2010
  22.5% Russell 3000 Index
  22.5% MSCI ACWI ex-US Index (developed markets 50% hedged)
  19.0% Barclays Aggregate Index
  10.0% NCREIF
  10.0% SERS Custom Private Equity Benchmark
  15.0% HFRI Fund of Fund Index
  1.0% Citigroup 30 Day T-Bill Index

SERS Detailed Asset Allocation



Largest Individual Global Equities Holdings as of June 30, 2020

	Description	Country	Shares	Market Price	Fair Value
1	Microsoft Corp.	United States	719,361	$ 203.51	$ 146,397,157
2	Apple, Inc.	United States	389,704	364.80	142,164,019
3	Amazon.com, Inc.	United States	40,878	2,758.82	112,775,044
4	Facebook, Inc.	United States	236,451	227.07	53,690,929
5	Alibaba Group Holding Ltd.	China	202,176	215.70	43,609,363
6	Taiwan Semiconductor Manufacturing Co.	Taiwan	753,619	56.77	42,782,951
7	Alphabet, Inc. Class A	United States	28,982	1,418.05	41,097,925
8	Johnson & Johnson	United States	279,635	140.63	39,325,070
9	Alphabet, Inc. Class C	United States	26,732	1,413.61	37,788,623
10	Unitedhealth Group Inc.	United States	125,783	294.95	37,099,696

All monetary values stated in US dollars.
A complete listing of holdings is available upon request.

Largest Individual Global Fixed Income Holdings as of June 30, 2020

	Description	Rating	Par Value	Market Price	Fair Value
1	GNMA TBA 2.50% 07/01/2050	AA+	$ 20,000,000	$ 1.04	$ 20,850,000
2	US Treasury Note 0.125% 04/30/2022	AA+	17,730,000	1.00	17,716,171
3	US Treasury Bond 2.50% 02/15/2045	AA+	13,800,000	1.23	17,022,576
4	US Treasury Bond 2.75% 08/15/2047	AA+	10,477,000	1.31	13,689,248
5	GNMA II TBA 2.50% 07/20/2050	AA+	11,900,000	1.05	12,526,654
6	US Treasury Note 0.375% 03/31/2022	AA+	10,840,000	1.00	10,878,590
7	US Treasury Note 1.125% 02/28/2022	AA+	10,680,000	1.02	10,848,958
8	GNMA TBA 3.50% 07/01/2050	AA+	10,000,000	1.05	10,517,600
9	US Treasury CPI Inflation 0.125% 04/15/2022	AA+	9,106,576	1.02	9,238,894
10	US Treasury Note 2.625% 02/15/2029	AA+	7,843,000	1.17	9,190,427

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, 2020

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
- Neumeier Poma Investment Counsel, LLC
- Dodge & Cox
- State Street Global Advisors

Investment Managers - Non-US Equity
- Arrowstreet Capital, LP
- Axiom International Investors, LLC
- 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
- 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.
- Stone Harbor Investment Partners, LP
- Western Asset Management Co.

Investment Managers - Multi-Asset Strategies
- Angelo, Gordon & Co.
- Aristeia Capital, LLC
- Arrowstreet Capital, LP
- Bain Capital, LP
- BlackRock Financial Management, Inc.
- Bridgewater Associates, Inc.
- BRG Fund Management Services LLC
- D.E. Shaw & Co., LLC
- Deloitte & Touche
- Eminence Capital, LLC
- GoldenTree Asset Management, LP
- GSA Capital Partners, LLP
- Invesco National Trust Co.
- King Street Capital Management, LLC
- Marathon Asset Management, LLC
- Nephila Capital Ltd.
- Oceanwood Capital Management, LLP
- One William Street Credit Management, LP
- Parametric Portfolio Associates LLC
- PGIM Fixed Income a/k/a PGIM, Inc.
- Pharo Global Advisors Ltd.
- Redwood Capital Management, LLC
- Schroder Investment Management North America Ltd.
- Stark Offshore Management, LLC
- Viking Global Investors, LP
- Western Asset Management Co.

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 Investments
- Arcmont Asset Management
- Barings Global Advisers, Ltd.
- Blackstone Group 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
- Huntington National Bank

Master Recordkeeper
- BNY Mellon Asset Servicing

Investment Analytics
- BNY Mellon Global Risk Solutions

Summary Schedule of Brokers' Fees for US Equity Transactions for the Year Ended June 30, 2020

Broker Name	Fees Paid	# of Shares Traded	Avg. Commission per Share
Stifel, Nicolaus & Co., Inc.	$ 46,475	1,479,464	$ 0.031
J.P. Morgan Securities, LLC	44,126	4,517,989,545	0.000
Merrill Lynch, Pierce, Fenner & Smith, Inc.	38,404	5,339,682	0.007
State Street Global Markets, LLC	35,024	8,196,622	0.004
UBS Securities, LLC	34,240	3,633,553	0.009
ITG, Inc.	20,723	768,127	0.027
Jefferies, LLC	19,705	2,412,002	0.008
HSBC Securities, Inc.	18,904	6,350,101	0.003
Morgan Stanley & Co., Inc.	17,038	1,033,418	0.016
Goldman Sachs Execution & Clearing, LP	16,241	477,663	0.034
Euroclear Bank SA/NV	15,751	741,921	0.021
Goldman Sachs & Co.	15,468	1,028,054	0.015
Instinet, LLC	15,244	2,991,150	0.005
Sanford C. Bernstein & Co., LLC	13,647	887,530,138	0.000
Evercore Group, LLC	10,842	789,009	0.014
Cantor, Fitzgerald & Co.	10,715	431,278	0.025
Piper Jaffray & Co.	10,524	1,895,690	0.006
Bank of America National Trust & Savings	10,019	1,568,302	0.006
Citigroup Global Markets, Inc.	9,794	1,560,430	0.006
CJS Securities, Inc.	8,538	213,450	0.040
Roth Capital Partners, LLC	8,323	212,600	0.039
Credit Suisse Securities, LLC	7,393	388,120	0.019
Barclays Capital, Inc.	7,373	311,764	0.024
Cowen & Co., LLC	6,895	580,117	0.012
Sidoti & Co., LLC	6,860	171,500	0.040
Wells Fargo Securities, LLC	6,215	174,666	0.036
Craig-Hallum Capital Group, LLC	5,989	149,725	0.040
Robert W. Baird & Co., Inc.	5,034	125,851	0.040
B.Riley & Co., LLC	4,928	146,200	0.034
William Blair & Co., LLC	4,768	118,843	0.040
Loop Capital Markets, LLC	4,617	170,994	0.027
Raymond James & Associates, Inc.	4,545	112,816	0.040
Liquidnet, Inc.	4,133	562,912	0.007
SG Americas Securities, LLC	3,707	1,331,425	0.003
Jonestrading Institutional Services, LLC	3,505	175,254	0.020
RBC Capital Markets, LLC	3,281	82,436	0.040
Oppenheimer & Co., Inc.	3,038	124,282	0.024
Penserra Securities, LLC	2,731	273,079	0.010
Needham & Co., LLC	2,605	65,115	0.040
KeyBanc Capital Markets, Inc.	2,524	64,500	0.039
D. A. Davidson & Co.	2,460	61,495	0.040
Stephens, Inc.	2,415	60,375	0.040
Merrill Lynch Professional Clearing Corp.	2,060	331,185	0.006
BMO Capital Markets Corp.	1,990	119,836	0.017
Virtu Americas LLC	1,871	338,123	0.006
North South Capital, LLC	1,750	70,000	0.025
Citation Financial Group, LP	1,390	111,627	0.012
Cornerstone Macro LLC	1,288	28,984	0.044
Convergex Execution Solutions, LLC	1,270	585,203	0.002
Exane, Inc.	1,171	388,321	0.003
Brokers with less than $1,171 (29)	6,987	3,099,647	0.002
Total US	$ 534,538	$ 5,456,966,594	$ 0.000

Summary Schedule of Brokers' Fees for Non-US Equity Transactions for the Year Ended June 30, 2020

Broker Name		Fees Paid	# of Shares Traded		Avg. Commission per Share
Instinet, LLC	$	171,770	210,091,416	$	0.001
J.P. Morgan Securities, LLC		64,176	32,637,916		0.002
CSLA Americas, LLC		53,218	12,296,633		0.004
Citigroup Global Markets, Inc.		46,753	27,417,156		0.002
Merrill Lynch Professional Clearing Corp.		46,653	28,542,026		0.002
Goldman Sachs & Co.		42,757	3,648,890		0.012
HSBC Securities, Inc.		39,195	33,309,522		0.001
UBS Securities, LLC		39,123	11,229,381		0.003
UBS Financial Services, Inc.		37,433	16,277,784		0.002
Credit Agricole Securities, Inc.		35,660	54,283,340		0.001
Marquarie Capital Markets North America Ltd.		34,529	60,976,819		0.001
ITG, Inc.		29,879	2,597,763		0.012
Convergex Execution Solutions, LLC		27,983	10,629,892		0.003
Sanford C. Bernstein & Co., LLC		26,847	14,938,407		0.002
Exane, Inc.		23,620	7,313,260		0.003
Jefferies, LLC		22,449	16,054,724		0.001
SG Securities, LLC		22,082	42,599,538		0.001
BNP Parabas Investment Services, LLC		21,124	11,226,732		0.002
Credit Suisse Securities, LLC		17,444	2,190,680		0.008
Cowen & Co., LLC		16,921	8,765,441		0.002
SG Warburg & Co., Inc.		16,052	1,105,695		0.015
North South Capital, LLC		14,701	558,875		0.026
Morgan Stanley & Co., Inc.		14,055	3,118,767		0.005
SG Americas Securities, LLC		12,857	5,529,405		0.002
Societe Generale Securities Services		12,056	1,299,406		0.009
ITAU International Securities, Inc.		8,773	616,300		0.014
ICICI Securities, Inc.		8,492	4,401,730		0.002
Bradesco S/A Ctvm		7,767	4,198,631		0.002
Cantor, Fitzgerald & Co.		7,111	1,000,706		0.007
Winterflood Securities, Inc.		6,780	1,644,436		0.004
Daiwa Capital Markets, Inc.		6,661	786,364		0.008
Shore Capital Ltd		6,291	1,332,762		0.005
XP Securities, LLC		5,288	1,667,184		0.003
Numis Securities, Inc.		4,633	830,239		0.006
Liberum Capital, Inc.		4,013	433,032		0.009
CIBC World Markets Corp.		4,003	1,140,609		0.004
First Rand Bank Co.		3,324	119,898		0.028
Bradesco Securities, Inc.		3,265	238,920		0.014
Deutsche Bank Securities, Inc.		2,840	195,163		0.015
Nomura Securities International, Inc.		2,234	188,219		0.012
RBC Capital Markets, LLC		2,150	32,892		0.065
Barclays Capital, Inc.		2,050	743,290		0.003
Brasil Plural Securities LLC		1,925	954,080		0.002
Auerbach Grayson & Co., Inc.		1,901	579,300		0.003
LG Investment & Securities Co Ltd.		1,885	161,801		0.012
Haitong International Securities (USA), Inc.		1,721	97,900		0.018
BofA Securities, Inc.		1,674	110,100		0.015
Kepler Capital Markets, Inc.		1,623	133,913		0.012
Santander Securities, LLC		1,567	66,600		0.024
Mizuho Securities USA, Inc.		1,532	154,600		0.010
Brokers with less than $1532 (26)		14,986	5,158,057		0.003
Total Non-US	$	1,003,826	$ 645,626,194	$	0.002

Reconciliation to Statement of Fiduciary Net Position

Asset Class/Strategy		Fair Value	% of Total Fair Value
Global Equities	$	6,616,651,223	45.2 %
Global Private Equity		1,539,531,294	10.5
Global Fixed Income		2,508,339,669	17.1
Multi-Asset Strategies		1,043,784,599	7.1
Global Real Assets		2,271,514,190	15.5
Opportunistic Investments		374,380,293	2.6
Cash Equivalents		298,919,649	2.0
Net Portfolio Value	$	14,653,120,917	100.0 %
Investments receivable, securities sold		(120,276,369)	
Investments payable, securities purchased		207,246,671	
Cash and cash equivalents		(505,257,932)	
Investments per Statement of Fiduciary Net Position	$	14,234,833,287	

Statement of Investment Policy (effective September 17, 2015)

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.

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 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;

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, and
   g. Conducting a peer group benchmarking of SERS investment costs performed by an independent entity every two- to three-years.
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. activating previously approved Backup Investment Managers;
   l. executing investment documents;
   m. approving Investment Manager guidelines, changes and additions;
   n. supervising Investment Staff;

o. 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

p. regularly reporting the status of the Total Fund and its multi-period performance to the Board relative to benchmarks and on market conditions. Performance will be calculated on a gross-of-fees and net-of-fees basis.

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 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 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 and Governance Officer***

The Investment Compliance and Governance Officer 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.C. and D., herein;
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;
5. 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
6. reporting proxy voting activity to the Board on a quarterly basis and highlighting any emerging issues related to this activity.

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 and Governance Officer;
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:

ASSET CLASS	TARGET	RANGE
Equity	**55%**	**45% - 65%**
Global Equities	45%	35% - 55%
Global Private Equity	10%	5% - 15%
Income	**35%**	**30% – 40%**
Global Bonds	19%	12% - 26%
Global Real Assets	15%	10% - 20%
Cash Equivalents	1%	0% - 5%
STRATEGY		
Multi-Asset Strategies	10%	5% - 15%
Opportunistic Investments	0%	0 – 5%
Total		**100%**

B. Derivative Instruments

The Board authorizes the use of derivative instruments 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 strategies as needed. The Chief Investment Officer will adopt a derivative instruments policy setting forth general guidelines for the use of derivative instruments.

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 adopt a leverage policy setting forth general guidelines for the use of leverage.

D. Rebalancing

The Chief Investment Officer will adopt a rebalancing strategy for the Total Fund which ensures adherence to the asset allocation strategy in Section VIII.A. The strategy may delegate certain authority to Investment Staff.

E. Currency Hedging

The Board authorizes currency hedging in the Total Fund and authorizes the Chief Investment Officer, with the advice and assistance of the Investment Consultant, to develop and implement currency hedging strategies as needed.

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 adopt and implement 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 similar to current SEC 2a-7 guidelines. 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 Investments

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

J. Investment Managers and Funds

The Board authorizes the Chief Investment Officer and the Investment Committee to approve and discharge Investment Managers, Funds and Backup Investment Managers based upon recommendations of Investment Staff or Investment Consultants, as may be appropriate, and discussions with Managers. Allocations to approved Investment Managers and Funds will be determined or adjusted by the Chief Investment Officer in accordance Section VI.B.2.f. Allocations and adjustments are subject to any maximum allocation amounts established by the Board.

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. Staff will report to the Board annually on the utilization of Ohio-qualified managers and efforts to increase utilization.

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

K. 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.

L. 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 which 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.

M. 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.

N. 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.

O. 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.

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. A.

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	50% Russell 3000 Index; 50% MSCI ACWI ex-US Index (net dividends)
Global Private Equity	Burgiss All Private Equity Benchmark (BAPE)(one quarter in arrears)
Global Fixed Income	Barclays Capital US Aggregate Bond Index
Global Real Assets	NCREIF Property Index (one quarter in arrears)
Cash Equivalents	Citigroup 30-day T-Bill Index
Strategy	Benchmark Measure
Multi-Asset Strategies	HFRI Fund of Funds Composite Index plus 1.0%
Opportunistic Investments	Total Fund Benchmark Return

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 market 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 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

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

October 27, 2020

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 10.86% of payroll for 156,579 school employees meets the basic financial objective over a 24-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 71.49%. 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 15, 2020, 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
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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 2011-2015 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 2054, 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.

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October 27, 2020
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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, 2020 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,

Todd B. Green ASA, FCA, MAAA
President

Alisa Bennett, FSA, EA, FCA, MAAA
President

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 21, 2016, on the recommendation of its actuary. These assumptions were based on an analysis of plan experience for the 5-year period July 1, 2010 through June 30, 2015, and were adopted for use in the valuation as of June 30, 2020.

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 benefit 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 Heath 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 FY2020, 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, 2020, 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 24-year period.

Pension Trust Fund	13.15 %
Death Benefit Fund	0.81 %
Medicare B Fund	0.04 %
Health Care Fund	— %
	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 FY2020, the minimum pay amount was established at $19,600. 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” market 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, 2020:

- **Investment Return** Net after all SERS’ expenses, the return on investments is compounded annually at 7.50%.
- **Inflation Rate** The inflation assumption is 3.00% 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 3.00%, the 7.50% investment return rate translates to an assumed real rate of return of 4.50%.

- **Benefit increases** Cost-of-living adjustments of 2.50% per year on anniversary of retirement are assumed. On and after April 1, 2018, COLA's for future retirees are delayed for three years following commencement.
- **Payroll Growth** Salary increases attributable to payroll growth of 3.50% are projected and compounded annually. Additional projected salary increases ranging from 0.0% to 14.2% 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	14.20 %	3.50 %	18.20 %
1	5.55	3.50	9.25
2	3.14	3.50	6.75
3	2.17	3.50	5.75
4	1.45	3.50	5.00
5	1.20	3.50	4.75
6	0.97	3.50	4.50
7	0.72	3.50	4.25
8	0.48	3.50	4.00
9	0.24	3.50	3.75
10 & over	—	3.50	3.50

Non-Economic Assumptions

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

	Annual Rates of Retirement							
	Eligible prior to 8/1/17				Eligible on or after 8/1/17			
Age	Reduced	Reduced (55/25)	First Eligible Unreduced	Subsequent Unreduced	Reduced	Reduced (60/25)	First Eligible Unreduced	Subsequent Unreduced
50			27 %	19 %				
55		10 %	27	19				
60	11 %	14	27	19		14 %	30 %	19 %
65			25	19	11 %	14	30	19
70			20	22			30	22
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:

	Annual Rates of			
	Death*		Disability	
Age	Male	Female	Male	Female
20	0.022 %	0.013 %	0.020 %	0.010 %
25	0.053	0.018	0.038	0.010
30	0.059	0.019	0.068	0.026
35	0.063	0.024	0.122	0.055
40	0.068	0.032	0.212	0.102
45	0.081	0.044	0.311	0.170
50	0.126	0.074	0.411	0.300
55	0.218	0.124	0.530	0.450
60	0.361	0.188	0.590	0.450
65	0.607	0.274	0.550	0.300
70	1.071	0.415	0.300	0.200
74	1.570	0.629	0.300	0.200

*Pre-retirement mortality is based on the RP-2014 Blue Collar Mortality Table with fully generational projection and a 5-year set-back for both males and females. The rates in the table above represent the base rates used.

- **Death after Retirement** 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.

- **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, 2020

Present value of:	Pension Benefits	Medicare Part B	Post-Retirement Death Benefit	Total Basic Benefits
Future benefits to present retirees and survivors	$ 12,368,408,451	$ 218,994,878	$ 30,523,386	$ 12,617,926,715
Benefits and refunds to present inactive members	640,773,609	17,485,136	956,901	659,215,646
Allowances to present active members				
Service	7,253,774,608	142,139,106	7,538,073	7,403,451,787
Disability	240,199,195	3,780,146	441,160	244,420,501
Survivor benefits	130,178,208	2,232,473	—	132,410,681
Withdrawal	(32,621,441)	8,625,597	379,833	(23,616,011)
Total Active AAL	7,591,530,570	156,777,322	8,359,066	7,756,666,958
Total AAL	$ 20,600,712,630	$ 393,257,336	$ 39,839,353	$ 21,033,809,319

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
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
2011	125,337	2,852	22,758	0.9

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

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		
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
2011	3,472	49,577,804	2,378	1,526,603	67,221	777,910,918	6.6	11,572

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		
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 two years 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.

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							
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	89.0	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	86.0	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
2011	2,749	8,525	4,636	10,378	100.0	90.0	0.0
MEDICARE B							
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	57.0	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
2011	0	245	138	116	100.0	47.0	0.0
DEATH BENEFIT							
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	77.0	0.0
2016	0	30	8	22	100.0	73.0	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
2011	0	26	7	19	100.0	74.0	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	2020				2019				2018				2017			
	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.	$ (98.0)	$ 3.0	$ 1.0	**$ (94.0)**	$ 3.4	$ 3.8	$ 0.6	**$ 7.8**	$ (211.1)	$ 1.2	$ 0.3	**$(209.6)**	$ (211.0)	$(0.5)	$ (0.3)	**$(211.8)**
Disability Retirements If disability claims are less than assumed, there is a gain. If more claims, there is a loss.	(3.0)	(0.1)	0.0	**(3.1)**	(9.5)	0.0	0.0	**(9.5)**	(14.6)	(0.1)	0.0	**(14.7)**	(37.0)	(0.7)	(0.1)	**(37.8)**
Post-Retirement Death Benefits If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(5.2)	(0.2)	0.0	**(5.4)**	(3.8)	(0.2)	0.0	**(4.0)**	(6.4)	(0.2)	0.0	**(6.6)**	(0.1)	0.0	0.0	**(0.1)**
Pay Increases If there are smaller pay increases than assumed, there is a gain. If greater increases, there is a loss.	136.2	0.0	0.0	**136.2**	20.3	0.0	0.0	**20.3**	85.2	0.0	0.0	**85.2**	(69.2)	0.0	0.0	**(69.2)**
Investment Income (Loss) If there is greater investment income than assumed, there is a gain. If less income, there is a loss.	6.4	0.7	0.0	**7.1**	(44.1)	0.1	(0.1)	**(44.1)**	(159.0)	(1.9)	(0.2)	**(161.1)**	(12.1)	0.1	0.0	**(12.0)**
Withdrawal From Employment If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, there is a loss.	(104.1)	(0.1)	0.0	**(104.2)**	(105.9)	(0.4)	0.0	**(106.3)**	(124.0)	(0.5)	0.0	**(124.5)**	21.7	0.2	0.0	**21.9**
New Members Additional accrued liability attributable to members who entered the plan since the last valuation.	(21.5)	(0.7)	0.0	**(22.2)**	(21.6)	(0.8)	0.0	**(22.4)**	(34.6)	(1.0)	(0.1)	**(35.7)**	(45.0)	(2.9)	(0.2)	**(48.1)**
Death After Retirement If retired members live longer than assumed, there is a loss. If not as long, there is a gain.	15.6	13.6	(0.3)	**28.9**	(35.6)	10.7	0.0	**(24.9)**	4.6	10.5	(0.1)	**15.0**	85.3	14.0	(2.1)	**97.2**
Other Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	59.3	2.9	0.1	**62.3**	75.7	2.7	0.0	**78.4**	(0.7)	5.5	(0.2)	**4.6**	(32.1)	1.8	3.6	**(26.7)**
Non-Recurring Items Adjustments for plan amendments, assumption changes, or method changes.	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**	357.6	0.0	0.0	**357.6**	998.5	0.0	0.0	**998.5**
Total Gain (Loss) During Year	$ (14.3)	$19.1	$ 0.8	**$ 5.6**	$ (121.1)	$15.9	$ 0.5	**$(104.7)**	$ (103.0)	$13.5	$ (0.3)	**$ (89.8)**	$ 699.0	$12.0	$ 0.9	**$ 711.9**

2016				2015				2014				2013*	2012*	2011*
Pension	Med B	Death Benefit	Total	Pension	Med B	Death Benefit	Total	Pension	Med B	Death Benefit	Total			
$ (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)	$ (59.2)
(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)	(28.1)
(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)	(0.7)
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	198.4
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)	(1,082.9)
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	15.4
(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)	(36.4)
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	(1.0)
(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)	(10.0)
(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	(436.2)
$ 0.0	$ 0.0	$ 0.0	**$ (668.2)**	$ (7.5)	$ 19.7	$ 0.3	**$ 12.5**	$ 338.4	$ 9.9	$ 1.0	**$ 349.3**	$ 343.3	$ (458.6)	$ (1,440.7)

*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 5.25%.

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 3.50% 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)
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
2011	169,146,052	86,908,283	—	86,908,283	51.4

Asset Valuation Method Fair Market Value

Economic Assumptions The following economic assumptions were used in the actuarial valuation as of June 30, 2020:

- **Investment Return** Net after all plan expenses, the return on investments is compounded annually at 5.25%.
- **Inflation Rate** The inflation assumption is 3.00% 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 3.00%, the 5.25% investment return rate translates to an assumed real rate of return of 2.25%.
- **Health Care Cost Trend Rates** To the right, is a chart detailing trend assumptions:

Calendar Year	Non-Medicare	Medicare
2020	7.00 %	5.25 %
2021	6.75	5.13
2022	6.50	5.00
2023	6.25	4.75
2024	6.00	4.75
2025	5.75	4.75
2026	5.50	4.75
2027	5.25	4.75
2028	5.00	4.75
2029 and beyond	4.75	4.75

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
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

- **Anticipated Plan Participation** 50% of male retirees will choose spousal coverage, while only 30% of female retirees will choose spousal coverage.

Years of Service at Retirement	Service Retiree Participation	Disabled Retiree Participation
5 - 9	0.0 %	50.0 %
10 - 14	25.0	50.0
15 - 19	45.0	70.0
20 - 24	70.0	75.0
25 - 29	75.0	75.0
30 - 34	80.0	80.0
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, 2020	
Present value of benefits payable on account of present retired members and beneficiaries	$ 613,571,119
Present value of benefits payable on account of active members	1,894,632,512
Present value of benefits payable on account of deferred vested members	12,403,183
Total AAL	$ 2,520,606,814

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	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.	$ (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	(1.6)	(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.	(1.7)	(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.	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.	(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.	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.	(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.	(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.	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.	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.	(16.4)	0.0	0.0	0.0	(72.1)	0.0	(36.1)
Total Gain (Loss) During Year	**$ 439.4**	**$ 370.2**	**$ (54.5)**	**$ 23.9**	**$ (3.6)**	**$ 62.9**	**$ 504.4**

*Breakdowns by fund for prior years are not available.

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)
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
2011	0	897	1,513	356	100.0	39.7	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		
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	10,099,985	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	8,944,566	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
2011	1,842	6,078,819	4,296	6,244,776	48,151	81,358,997	(7.63)	1,690

[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

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:

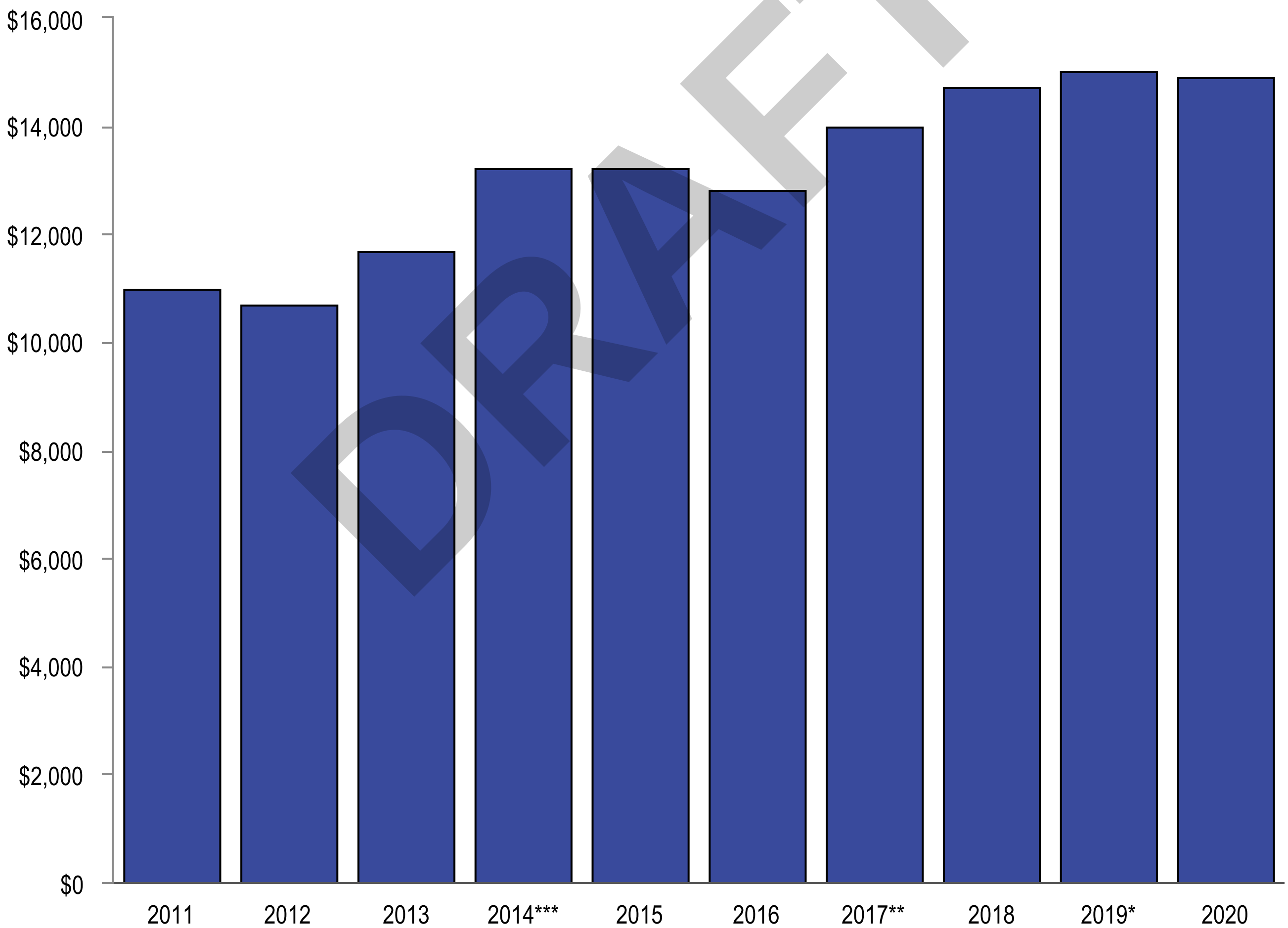
- Employee and Employer Contribution Rates
- Demographics of New Pension Benefit Recipients
- Demographics of Active and Retired Members Used for Valuation Purposes
- Retired Members by Type of Benefit
- Retirees, Spouses, and Dependents Receiving Health Care Coverage
- Principal Participating Employers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

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
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
2011	10,483,076,014	116,849,347	19,249,940	102,596	355,705,744	10,974,983,641

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.

Changes in Fiduciary Net Position

Last 10 fiscal years

ALL FUNDS COMBINED	2020	2019*	2018	2017**
ADDITIONS				
Employer Contributions	$ 540,093,944	$ 530,912,162	$ 499,018,574	$ 515,834,904
Employee Contributions	352,343,063	345,212,684	324,842,074	336,627,658
Other Income	97,386,324	87,988,134	116,893,434	98,190,524
Total Investment Income (Loss), Net	424,249,537	853,597,055	1,270,190,442	1,649,100,073
TOTAL ADDITIONS	1,414,072,868	1,817,710,035	2,210,944,524	2,599,753,159
DEDUCTIONS				
Benefits	1,412,869,771	1,404,572,346	1,407,652,952	1,341,304,984
Refunds and Lump Sum Payments	72,849,117	75,639,810	59,575,036	60,692,833
Net Transfers to Other Ohio Systems	3,411,620	1,311,797	(6,734,065)	(3,139,875)
Administrative Expenses	30,882,135	34,449,268	29,630,291	37,411,704
TOTAL DEDUCTIONS	1,520,012,643	1,515,973,221	1,490,124,214	1,436,269,646
Net Increase (Decrease)	(105,939,775)	301,736,814	720,820,310	1,163,483,513
Fiduciary Net Position Held in Trust:				
Beginning of Year	15,008,374,678	14,706,362,726	13,985,542,416	12,822,058,903
End of Year	**$ 14,902,434,903**	**$ 15,008,099,540**	**$ 14,706,362,726**	**$ 13,985,542,416**

PENSION TRUST FUND	2020	2019*	2018	2017**
ADDITIONS				
Employer Contributions	$ 461,695,266	$ 435,388,804	$ 406,953,261	$ 442,032,882
Employee Contributions	352,343,063	345,212,684	324,842,074	336,627,658
Other Income	—	—	—	—
Total Investment Income (Loss), Net	407,045,705	819,731,217	1,226,089,090	1,593,050,588
TOTAL ADDITIONS	1,221,084,034	1,600,332,705	1,957,884,425	2,371,711,128
DEDUCTIONS				
Pension Benefits	1,251,597,154	1,232,808,916	1,227,807,547	1,146,987,656
Refunds and Lump Sum Payments	72,849,117	75,639,810	59,575,036	60,692,833
Net Transfers to Other Ohio Systems	3,411,620	1,311,797	(6,734,065)	(3,139,875)
Administrative Expenses	27,934,647	31,814,787	26,931,754	34,766,604
TOTAL DEDUCTIONS	1,355,792,538	1,341,575,310	1,307,580,272	1,239,307,218
Net Increase (Decrease)	(134,708,504)	258,757,395	650,304,153	1,132,403,910
Fiduciary Net Position Held in Trust:				
Beginning of Year	14,337,756,829	14,078,724,296	13,428,420,143	12,296,016,233
End of Year	**$ 14,203,048,325**	**$ 14,337,481,691**	**$ 14,078,724,296**	**$ 13,428,420,143**

HEALTH CARE FUND	2020	2019*	2018	2017**
ADDITIONS				
Employer Contributions	$ 48,187,050	$ 65,877,673	$ 63,539,354	$ 47,672,886
Other Income	97,386,324	87,988,134	116,893,434	98,190,524
Total Investment Income (Loss), Net	11,139,059	22,009,627	28,167,652	35,730,747
TOTAL ADDITIONS	156,712,433	175,875,434	208,600,440	181,594,157
DEDUCTIONS				
Health Care Expenses	135,034,624	145,127,670	152,447,415	167,106,908
Administrative Expenses	2,877,010	2,566,722	2,632,948	2,582,204
TOTAL DEDUCTIONS	137,911,634	147,694,392	155,080,363	169,689,112
Net Increase (Decrease)	18,800,799	28,181,042	53,520,077	11,905,045
Fiduciary Net Position Held in Trust:				
Beginning of Year	463,810,679	435,629,637	382,109,560	370,204,515
End of Year	**$ 482,611,478**	**$ 463,810,679**	**$ 435,629,637**	**$ 382,109,560**

* 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.

2016	2015	2014***	2013	2012	2011
$ 481,635,982	$ 466,904,369	$ 451,402,553	$ 447,901,887	$ 456,375,083	$ 466,365,125
314,325,716	303,866,076	295,690,550	292,958,056	296,974,146	303,114,258
113,932,903	116,501,166	127,867,227	135,705,046	154,832,793	122,232,090
108,787,810	452,598,520	1,939,269,151	1,329,495,903	(37,922,409)	1,789,850,651
1,018,682,411	1,339,870,131	2,814,229,481	2,206,060,892	870,259,613	2,681,562,124
1,309,740,098	1,248,400,086	1,174,068,175	1,120,377,591	1,083,844,151	1,033,791,708
70,340,495	60,635,651	55,668,466	48,979,203	47,920,393	42,223,739
(2,272,514)	28,139,159	7,535,690	22,301,557	4,976,841	6,394,075
24,556,744	21,600,412	32,118,463	21,471,412	21,625,193	21,191,271
1,402,364,823	1,358,775,308	1,269,390,794	1,213,129,763	1,158,366,578	1,103,600,793
(383,682,412)	(18,905,177)	1,544,838,687	992,931,129	(288,106,965)	1,577,961,331
13,205,741,315	13,224,646,492	11,679,807,805	10,686,876,676	10,974,983,641	9,397,022,310
$ 12,822,058,903	**$ 13,205,741,315**	**$ 13,224,646,492**	**$ 11,679,807,805**	**$ 10,686,876,676**	**$ 10,974,983,641**

2016	2015	2014***	2013	2012	2011
$ 412,712,475	$ 374,724,343	$ 382,098,970	$ 380,083,642	$ 376,816,938	$ 355,959,304
314,325,716	303,866,076	295,690,550	292,958,056	296,974,146	303,114,258
—	—	—	—	—	—
105,116,336	435,966,343	1,864,902,017	1,277,940,348	(38,010,415)	1,722,754,363
832,154,527	1,114,556,762	2,542,691,537	1,950,982,046	635,780,669	2,381,827,925
1,085,216,541	1,020,154,456	957,757,668	901,072,882	845,683,445	784,875,283
70,340,495	60,635,651	55,668,466	48,979,203	47,920,393	42,223,739
(2,272,514)	28,139,159	7,535,690	22,301,557	4,976,841	6,394,075
21,746,197	19,249,913	29,789,453	19,239,612	19,090,214	18,622,302
1,175,030,719	1,128,179,179	1,050,751,277	991,593,254	917,670,893	852,115,399
(342,876,192)	(13,622,417)	1,491,940,260	959,388,792	(281,890,224)	1,529,712,526
12,638,892,425	12,652,514,842	11,160,574,582	10,201,185,790	10,483,076,014	8,953,363,488
$ 12,296,016,233	**$ 12,638,892,425**	**$ 12,652,514,842**	**$ 11,160,574,582**	**$ 10,201,185,790**	**$ 10,483,076,014**

2016	2015	2014***	2013	2012	2011
$ 44,855,441	$ 68,904,867	$ 46,097,206	$ 45,489,443	$ 56,476,230	$ 86,908,283
113,932,903	116,501,166	127,867,227	135,705,046	154,832,793	122,232,090
2,244,300	11,142,837	50,980,652	35,523,491	541,940	45,247,242
161,032,644	196,548,870	224,945,085	216,717,980	211,850,963	254,387,615
196,445,600	199,750,908	187,994,468	190,468,991	209,965,344	221,167,270
2,746,127	2,292,565	2,273,442	2,178,370	2,480,956	2,518,770
199,191,727	202,043,473	190,267,910	192,647,361	212,446,300	223,686,040
(38,159,083)	(5,494,603)	34,677,175	24,070,619	(595,337)	30,701,575
408,363,598	413,858,201	379,181,026	355,110,407	355,705,744	325,004,169
$ 370,204,515	**$ 408,363,598**	**$ 413,858,201**	**$ 379,181,026**	**$ 355,110,407**	**$ 355,705,744**

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

Changes in Fiduciary Net Position (continued)

Last 10 fiscal years

MEDICARE B FUND	2020	2019	2018	2017
ADDITIONS				
Employee Contributions	$ 28,332,747	$ 27,319,485	$ 26,291,404	$ 24,155,026
Other Income	—	—	—	—
Total Investment Income (Loss), Net	5,305,350	10,373,511	13,784,587	17,527,764
TOTAL ADDITIONS	33,638,097	37,692,996	40,075,991	41,682,790
DEDUCTIONS				
Pension Benefits	23,536,709	23,990,512	24,384,610	24,718,613
Administrative Expenses	6,655	5,487	6,143	6,277
TOTAL DEDUCTIONS	23,543,364	23,995,999	24,390,753	24,724,890
Net Increase (Decrease)	10,094,733	13,696,997	15,685,238	16,957,900
Fiduciary Net Position Held in Trust:				
Beginning of Year	180,963,382	167,266,385	151,581,147	134,623,247
End of Year	**$ 191,058,115**	**$ 180,963,382**	**$ 167,266,385**	**$ 151,581,147**

DEATH BENEFIT FUND	2020	2019	2018	2017
ADDITIONS				
Employer Contributions	$ 1,529,777	$ 1,975,200	$ 1,858,955	$ 1,608,830
Other Income	—	—	—	—
Total Investment Income (Loss), Net	757,342	1,479,649	2,147,404	2,790,208
TOTAL ADDITIONS	2,287,119	3,454,849	4,006,359	4,399,038
DEDUCTIONS				
Death Benefits	2,364,642	2,289,135	2,639,464	2,122,612
Administrative Expenses	61,321	59,750	55,996	53,601
TOTAL DEDUCTIONS	2,425,963	2,348,885	2,695,460	2,176,213
Net Increase (Decrease)	(138,844)	1,105,964	1,310,899	2,222,825
Fiduciary Net Position Held in Trust:				
Beginning of Year	25,631,031	24,525,067	23,214,168	20,991,343
End of Year	**$ 25,492,187**	**$ 25,631,031**	**$ 24,525,067**	**$ 23,214,168**

QEBA FUND	2020	2019	2018	2017
ADDITIONS				
Employer Contributions	$ 349,104	$ 351,000	$ 375,600	$ 365,280
Other Income	—	—	—	—
Total Investment Income (Loss), Net	2,081	3,051	1,709	766
TOTAL ADDITIONS	351,185	354,051	377,309	366,046
DEDUCTIONS				
Pension Benefits	336,642	356,113	373,916	369,195
Administrative Expenses	2,502	2,522	3,450	3,018
TOTAL DEDUCTIONS	339,144	358,635	377,366	372,213
Net Increase (Decrease)	12,041	(4,584)	(57)	(6,167)
Fiduciary Net Position Held in Trust:				
Beginning of Year	212,757	217,341	217,398	223,565
End of Year	**$ 224,798**	**$ 212,757**	**$ 217,341**	**$ 217,398**

2016	2015	2014	2013	2012	2011
$ 22,208,623	$ 21,499,206	$ 21,517,805	$ 20,672,040	$ 21,450,368	$ 22,172,922
—	—	—	—	—	—
1,233,948	4,716,932	20,040,557	13,702,584	(378,593)	18,521,800
23,442,571	26,216,138	41,558,362	34,374,624	21,071,775	40,694,722
25,391,810	25,743,861	25,800,345	26,204,777	25,715,070	25,353,175
7,544	7,407	6,639	6,317	5,800	5,652
25,399,354	25,751,268	25,806,984	26,211,094	25,720,870	25,358,827
(1,956,783)	464,870	15,751,378	8,163,530	(4,649,095)	15,335,895
136,580,030	136,115,160	120,363,782	112,200,252	116,849,347	101,513,452
$ 134,623,247	**$ 136,580,030**	**$ 136,115,160**	**$ 120,363,782**	**$ 112,200,252**	**$ 116,849,347**

2016	2015	2014	2013	2012	2011
$ 1,500,583	$ 1,455,553	$ 1,412,852	$ 1,398,442	$ 1,454,763	$ 1,166,996
—	—	—	—	—	—
192,842	772,277	3,345,822	2,329,326	(75,490)	3,327,059
1,693,425	2,227,830	4,758,674	3,727,768	1,379,273	4,494,055
2,358,518	2,460,907	2,262,136	2,410,943	2,309,922	2,254,894
55,139	48,157	47,394	45,510	46,941	43,293
2,413,657	2,509,064	2,309,530	2,456,453	2,356,863	2,298,187
(720,232)	(281,234)	2,449,144	1,271,315	(977,590)	2,195,868
21,711,575	21,992,809	19,543,665	18,272,350	19,249,940	17,054,072
$ 20,991,343	**$ 21,711,575**	**$ 21,992,809**	**$ 19,543,665**	**$ 18,272,350**	**$ 19,249,940**

2016	2015	2014	2013	2012	2011
$ 358,860	$ 320,400	$ 275,720	$ 258,320	$ 176,784	$ 157,620
—	—	—	—	—	—
384	131	103	154	149	187
359,244	320,531	275,823	258,474	176,933	157,807
327,629	289,954	253,558	219,998	170,370	141,086
1,737	2,370	1,535	1,603	1,282	1,254
329,366	292,324	255,093	221,601	171,652	142,340
29,878	28,207	20,730	36,873	5,281	15,467
193,687	165,480	144,750	107,877	102,596	87,129
$ 223,565	**$ 193,687**	**$ 165,480**	**$ 144,750**	**$ 107,877**	**$ 102,596**

Benefit and Refund Deductions from Fiduciary Net Position by Type

Last 10 fiscal years

PENSION BENEFITS	2020	2019	2018	2017
Service Retirement	$ 1,117,724,808	$ 1,096,960,216	$ 1,091,624,986	$ 1,012,404,884
Disability Retirement	93,391,297	95,725,624	97,027,548	96,312,675
Survivor Benefits	40,481,049	40,123,076	39,155,013	38,270,097
Total Pension Benefits	$ 1,251,597,154	$ 1,232,808,916	$ 1,227,807,547	$ 1,146,987,656
Refunds				
Separation	$ 72,834,422	$ 75,630,053	$ 59,496,216	$ 59,541,576
Beneficiaries	14,695	9,757	78,820	1,151,257
Total Refunds	$ 72,849,117	$ 75,639,810	$ 59,575,036	$ 60,692,833

MEDICARE B REIMBURSEMENT	2020	2019	2018	2017
Service Retirement	$ 21,365,130	$ 21,734,690	$ 22,072,596	$ 22,336,187
Disability Retirement	1,296,750	1,327,303	1,330,670	1,336,790
Survivor Benefits	874,829	928,519	981,344	1,045,636
Total Medicare B Reimbursement	$ 23,536,709	$ 23,990,512	$ 24,384,610	$ 24,718,613

DEATH BENEFITS	2020	2019	2018	2017
Service	$ 2,169,207.57	$ 2,083,499	$ 2,377,087	$ 1,939,771
Disability	195,434.14	205,636	262,377	182,841
Total Death Benefits	$ 2,364,641.71	$ 2,289,135	$ 2,639,464	$ 2,122,612

HEALTH CARE EXPENSES	2020	2019	2018	2017
Medical	$ 56,771,016	$ 72,447,500	$ 81,873,185	$ 87,845,475
Prescription	78,263,608	72,680,170	70,574,230	79,261,433
Other	—	—	—	—
Total Health Care Expenses	$ 135,034,624	$ 145,127,670	$ 152,447,415	$ 167,106,908

2016	2015	2014	2013	2012	2011
$ 952,950,117	$ 891,831,626	$ 834,865,512	$ 781,736,903	$ 731,236,350	$ 675,549,301
94,595,437	91,265,121	87,804,462	85,514,086	81,219,934	77,524,938
37,670,987	37,057,709	35,087,694	33,821,893	33,227,161	31,801,044
$ 1,085,216,541	$ 1,020,154,456	$ 957,757,668	$ 901,072,882	$ 845,683,445	$ 784,875,283
68,857,916	59,875,564	55,018,577	48,392,410	47,272,246	41,753,113
1,482,579	760,087	649,889	586,793	648,147	470,626
$ 70,340,495	$ 60,635,651	$ 55,668,466	$ 48,979,203	$ 47,920,393	$ 42,223,739

2016	2015	2014	2013	2012	2011
$ 22,855,321	$ 23,105,680	$ 23,099,058	$ 23,460,682	$ 23,006,643	$ 22,677,282
1,413,048	1,428,700	1,436,026	1,425,456	1,405,443	1,373,592
1,123,441	1,209,481	1,265,261	1,318,639	1,302,984	1,302,301
$ 25,391,810	$ 25,743,861	$ 25,800,345	$ 26,204,777	$ 25,715,070	$ 25,353,175

2016	2015	2014	2013	2012	2011
$ 2,133,523	$ 2,256,060	$ 2,052,993	$ 2,197,804	$ 2,101,093	$ 2,040,327
224,995	204,847	209,143	213,139	208,829	214,567
$ 2,358,518	$ 2,460,907	$ 2,262,136	$ 2,410,943	$ 2,309,922	$ 2,254,894

2016	2015	2014	2013	2012	2011
$ 108,821,435	$ 117,389,938	$ 109,622,130	$ 110,990,977	$ 112,818,198	$ 119,184,041
86,997,168	80,843,448	76,945,975	78,135,361	94,731,407	100,474,453
626,997	1,517,522	1,426,363	1,342,653	2,415,739	1,508,776
$ 196,445,600	$ 199,750,908	$ 187,994,468	$ 190,468,991	$ 209,965,344	$ 221,167,270

Employee and Employer Contribution Rates

Last 10 fiscal years

Fiscal Year	Employee Rate	Employer Rate				
		Pension	Medicare B	Death Benefit	Health Care	Total
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
2011	10.00	11.77	0.76	0.04	1.43	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
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
2011	22.7	1,203	63.4	30,579

Average Disability Benefit

Year Ended June 30	Service Credit	Monthly Amount	Age	Final Average Salary
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
2011	15.4	1,272	55.7	29,417

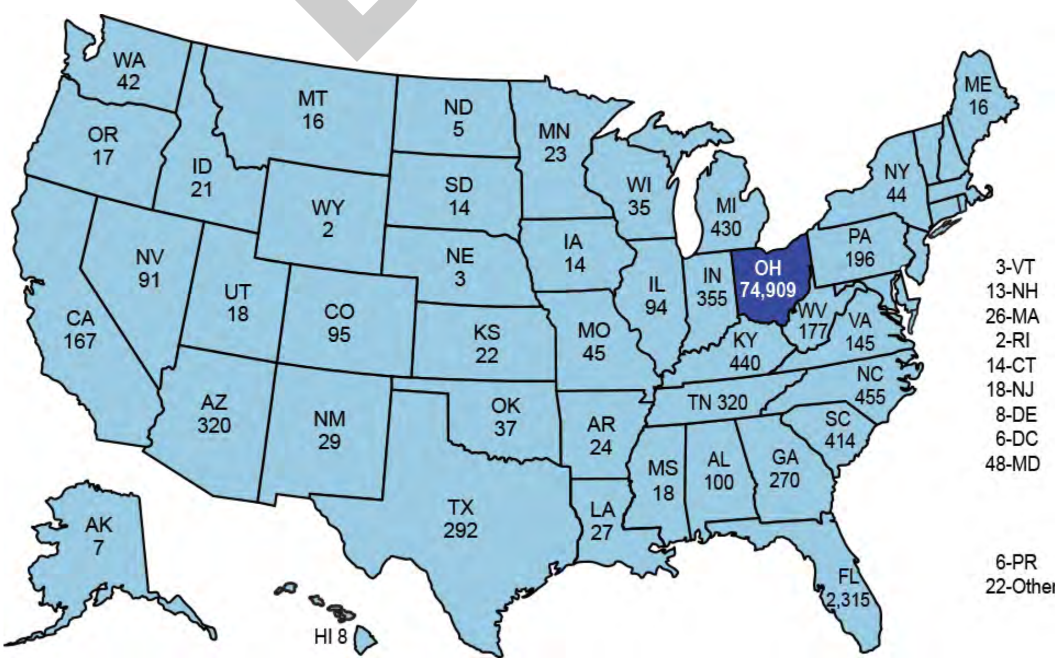
Demographics of Active and Retired Members Used for Valuation Purposes

Fiscal Year 2020

	Active Members			Percentage of Distribution		
	Male	Female	Total	Male	Female	Total
Under 20	1,270	1,053	2,323	1 %	1 %	2 %
20 to 29	8,639	11,366	20,005	5	7	12
30 to 39	8,205	16,614	24,819	5	11	16
40 to 49	10,275	24,853	35,128	7	16	23
50 to 54	5,663	14,758	20,421	4	9	13
55 to 59	5,652	16,718	22,370	4	11	15
60 to 64	5,195	13,603	18,798	3	9	12
65 to 69	2,800	5,341	8,141	2	3	5
70 and over	1,813	2,761	4,574	1	2	3
	49,512	107,067	156,579	32 %	68 %	100 %

	All Benefit Recipients			Percentage of Distribution		
	Male	Female	Total	Male	Female	Total
Under 55	430	665	1,095	1 %	1 %	2 %
55 to 59	988	1,455	2,443	1	2	3
60 to 64	2,517	6,296	8,813	4	8	12
65 to 69	4,383	12,076	16,459	5	15	20
70 to 74	4,484	12,177	16,661	6	15	21
75 to 79	3,458	9,624	13,082	4	12	16
80 to 84	2,627	7,950	10,577	3	10	13
85 to 89	1,600	5,333	6,933	2	7	9
90 to 94	749	2,881	3,630	1	4	5
95 to 99	157	859	1,016	—	1	1
100 and over	13	129	142	—	—	—
	21,406	59,445	80,851	26 %	74 %	100 %

All Benefit Recipients by State



Retired Members by Type of Benefit

Amount of Monthly Benefit	Total	Service	Disability	Survivor
$ 1 - $ 250	10,057	9,283	37	737
251 - 500	11,290	9,874	317	1,099
501 - 750	10,916	9,482	613	821
751 - 1,000	9,669	8,234	835	600
1,001 - 1,500	14,286	12,430	1,313	543
1,501 - 2,000	8,792	7,748	826	218
over 2,000	15,841	14,458	1,135	248
	80,851	71,509	5,076	4,266
Average Monthly Benefit		$ 1,288	$ 1,487	$ 778
Average Age		74.9	66.5	72.7

Retirees, Spouses, and Dependents Receiving Health Care Coverage

Attained Age	Number of Males	Number of Females	Total Number
Under 30	98	143	241
30 - 39	2	9	11
40 - 49	24	17	41
50 - 59	500	621	1,121
60 - 64	1,170	2,085	3,255
65 - 69	2,174	4,703	6,877
70 - 74	2,354	5,745	8,099
75 - 79	2,052	5,262	7,314
80 - 84	1,929	4,824	6,753
85 - 89	1,222	3,340	4,562
90 - 94	529	2,070	2,599
95 - 99	120	718	838
100 and over	13	132	145
	12,187	**29,669**	**41,856**

Principal Participating Employers

Current fiscal year and nine years ago

	Fiscal Year 2020			Fiscal Year 2011		
	Covered Employee Members	Rank	Percentage of Total System	Covered Employee Members	Rank	Percentage of Total System
Columbus City Schools	3,813	1	2.44 %	3,808	1	3.04 %
Cincinnati Public Schools	3,517	2	2.25	2,800	3	2.23
Cleveland Metropolitan School District	2,938	3	1.88	3,043	2	2.43
Educational Service Center Council of Governments	2,046	4	1.31	—	—	—
Akron Public Schools	1,792	5	1.14	1,649	5	1.32
Toledo City Schools	1,778	6	1.14	1,442	6	1.15
Olentangy Local Schools	1,365	7	0.87	—	—	—
South-Western City Schools	1,326	8	0.85	1,146	8	0.91
Lakota Local Schools	1,188	9	0.76	985	10	0.79
Dayton City Schools	1,173	10	0.75	1,322	7	1.05
University of Akron	—	—	—	2,321	4	1.85
Columbus State Community College	—	—	—	1,041	9	0.83
All Other	135,643	—	86.61	105,780	—	84.40
Total	**156,579**		**100.00 %**	**125,337**		**100.00 %**

In FY2020 "All Other" consisted of:

	Covered Employee Members	Number of School Districts
City School Districts	56,062	184
Local School Districts	48,825	370
Educational Service Centers	9,036	52
Exempted Village Districts	7,102	49
Community Schools	5,192	304
Higher Education	4,620	15
Vocational Schools	3,287	49
Other	1,519	18

Average Benefit Payments - New Retirees (Service Only)

Last 10 fiscal years

	Years of Credited Service					
Retirement Effective Dates	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**
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
Period 7/1/10 to 6/30/11						
Average Monthly Benefit	$ 211	$ 456	$ 706	$ 1,018	$ 1,354	$ 2,490
Monthly Final Average Salary	1,462	1,998	2,168	2,455	2,782	3,255
Number of Retirees	493	473	315	375	540	901

Plan Summary

Plan Summary

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, 2020, 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 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 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 (2) years and returned to work for at least two (2) years after the disability benefit terminated.

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 twelve (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.

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.

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 five (5) years of total service credit;
- Files an application no later than two (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.

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 three (3) or five (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's death.
- 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
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

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. Beginning April 1, 2018, 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.

A three-year COLA suspension is in effect for all benefit recipients for calendar years 2018, 2019, and 2020. Upon resumption of the COLA, it will be indexed to the percentage increase in the CPI-W, not to exceed 2.5% and with a floor of 0%.

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 ten (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.