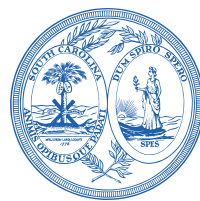


Comprehensive Annual Financial Report

South Carolina Retirement Systems

For the fiscal year ended June 30, 2020

Pension trust funds of the state of South Carolina



PEBASM
SC Retirement Systems
and State Health Plan

South Carolina Retirement Systems
Administered by the South Carolina Public Employee Benefit Authority

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2020
Pension Trust Funds of the state of South Carolina

S.C. Public Employee Benefit Authority
202 Arbor Lake Drive
Columbia, SC 29223
www.peba.sc.gov

Peggy G. Boykin, CPA
Executive Director

Prepared by the joint efforts of the S.C. PEBA Retirement Finance staff

This page contains no other content.

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Introductory



LETTER OF TRANSMITTAL

December 2, 2020

The Honorable Henry D. McMaster, Governor
State of South Carolina
Members of the S.C. State Fiscal Accountability Authority
S.C. Public Employee Benefit Authority Board

We are pleased to present the *Comprehensive Annual Financial Report (CAFR)* of the South Carolina Retirement Systems (Systems) as administered by the South Carolina Public Employee Benefit Authority (PEBA), for the fiscal year ended June 30, 2020. Section 9-1-300 of the South Carolina Code of Laws requires that a report be published annually showing the fiscal transactions of the Systems, and the CAFR fulfills that statutory requirement. PEBA is considered a division of the primary government of the state of South Carolina; and therefore, financial information for the Retirement Systems' trust funds is also included in the CAFR of the state of South Carolina. Responsibility for both the accuracy of the data, and the completeness and reliability of the presentation, including all disclosures, rests with the management of PEBA. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of the Systems.

The CAFR was prepared to conform to the principles of governmental accounting and reporting set forth by the Governmental Accounting Standards Board (GASB). GASB is an organization established under the Financial Accounting Foundation and establishes and approves governmental standards. GASB is recognized as the official source of generally accepted accounting principles (GAAP) for state and local governments.

Financial transactions of the Systems are reported on the accrual basis of accounting. Sufficient internal accounting controls exist to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements and supporting schedules, with consideration that the cost of internal control should not exceed anticipated benefits.

The financial statements presented in this CAFR have been independently audited by CliftonLarsonAllen, LLP, under the direction of the State Auditor's Office. CliftonLarsonAllen issued an unmodified opinion, which means that, based upon the financial audit, they concluded that the financial statements were fairly presented in all material respects and are free from material misstatement, in accordance with accounting principles generally accepted in the United States of America.

In accordance with Governmental Auditing Standards, as part of obtaining reasonable assurance about whether the Systems' financial statements are free of material misstatement, CliftonLarsonAllen also considered internal controls over financial reporting and compliance with certain provisions of laws, regulations, contracts, and other matters. Although independent auditors cannot guarantee the accuracy of the statements, they do have a reasonable basis for the opinion they rendered. The independent auditor's report is presented as the first component of the financial section of this report. Management's Discussion and Analysis (MD&A), which can also be found in the financial section starting on Page 30, provides a narrative introduction to and analysis of the

financial statements. This letter of transmittal is meant to complement the MD&A and should be read in conjunction with it.

Profile of the Systems

The South Carolina Public Employee Benefit Authority (PEBA), created July 1, 2012, and governed by an 11-member Board, is the state agency responsible for the administration and management of the various Retirement Systems and retirement programs of the state of South Carolina, including the State Optional Retirement Program (State ORP) and the S.C. Deferred Compensation Program, as well as the state's employee insurance programs. As such, PEBA is responsible for administering the South Carolina Retirement Systems' five defined benefit pension plans. A defined benefit plan is a retirement plan in which contributions are made to fund a level of retirement income at a future retirement date. Monthly service retirement benefits, as well as disability benefits and death benefits are provided to eligible members and/or their surviving beneficiaries. The plans' terms specify the amount of pension benefits to be provided at a future date or after a certain period of time. Monthly benefits are calculated using a formula that includes the member's average final compensation, years of service and a multiplier. PEBA's administrative and reporting structure is outlined in the Introductory Section of this report.

This report contains information on the following defined benefit pension trust funds:

- The South Carolina Retirement System (SCRS) was established July 1, 1945, to provide retirement and other benefits for teachers and employees of the state and its political subdivisions. SCRS covers employees of state agencies, public school districts, higher education institutions, other participating local subdivisions of government and individuals newly elected to the South Carolina General Assembly at or after the 2012 general election.
- The South Carolina Police Officers Retirement System (PORS) was established July 1, 1962, to provide retirement and other benefits to police officers and firefighters. PORS also covers peace officers, coroners, probate judges and magistrates.
- The Retirement System for Members of the General Assembly of the State of South Carolina (GARS) was established January 1, 1966, to provide retirement and other benefits to members of the General Assembly. Retirement reform legislation closed the GARS plan to individuals newly elected to the South Carolina General Assembly at or after the 2012 general election.
- The Retirement System for Judges and Solicitors of the State of South Carolina (JSRS) was established July 1, 1979, to provide retirement and other benefits to state judges and solicitors. JSRS also covers circuit public defenders.
- The South Carolina National Guard Supplemental Retirement Plan (SCNG) was established July 1, 1975, to provide supplemental retirement benefits to members who served in the South Carolina National Guard. The Retirement Systems assumed administrative responsibility for this fund in 2006.

Fiscal Year 2020 Administrative and Operational Activities

In administering and managing the five defined benefit pension plans, PEBA's vision is to serve those who serve South Carolina and our mission is to provide competitive retirement and insurance benefit programs for South Carolina public employers, employees and retirees. The agency accomplishes this by focusing efforts and goals in areas that promote financially sound programs, encourage retirement awareness, enhance customer experience and responsibly manage risk.

Impact of COVID-19 Pandemic

The outbreak of the novel coronavirus (COVID-19) as a pandemic has had tremendous impacts across the globe. As the virus spread to South Carolina, our organization reacted swiftly to address and adjust our day-to-day

operational focus and expectations. PEBA immediately closed its office to visitors and, in an effort to maintain the safety of our workforce and members, the vast majority of staff began telecommuting. Critical business operations continued without interruption and we quickly implemented various innovative solutions. Staff connect remotely using laptops and our Virtual Private Network (VPN) to perform their normal job duties, meetings transitioned to teleconferencing platforms, and members are being counseled over the phone. Although we continue to receive some paper forms and checks through the mail, we implemented significant improvements to existing web-based capabilities that allow documents and payments to be securely submitted electronically. Despite the continued negative impacts of the pandemic, PEBA's commitment for accuracy and excellence have allowed us to transition to an environment that provides an improved experience for both our stakeholders and our team members. Additional information regarding PEBA's response to COVID 19 including legislative initiatives, is included in the Management Discussion and Analysis beginning on Page 32.

Fiduciary Audit

Funston Advisory Services completed an external fiduciary audit of PEBA and issued their final report in November 2019. The purpose of the audit was to evaluate progress from the 2015 audit and to identify any areas of weakness in current operational policies and practices. The Funston report called the progress made by PEBA to address challenges impressive. "PEBA has made improvement in almost every aspect of its functioning."

Operations

More than 600,000 public employees are covered by the five defined benefit plans. An additional 50,000 members participate in the State ORP, and nearly 100,000 participate in the supplementary Deferred Compensation Program (401k and 457 plans). The Systems' defined benefit plans collectively receive more than \$3 billion in contributions and disburse more than \$3.6 billion in retirement benefits each year.

PEBA's core retirement operational units processed 5,607 service retirement applications, 181 disability applications, 11,283 refund requests and 5,775 death claims during fiscal year 2020.

The agency worked diligently to improve member and employer education for a variety of topics through its Navigating Your Benefits series. New materials explained the funding and value of the retirement systems. Employer and member checklists were developed based on life events and include retirement benefit changes that can be made. Customer Service created a specialized quality assurance and training unit. This group of expert staff focuses on customer communication and employee training.

Information Technology

We continued to enhance online functionality for transactions, including launching the online request for review process. These technology upgrades have provided for improved customer experiences. Additionally, PEBA's public website was redesigned and migrated to an updated platform on July 1, 2020.

The Enterprise Risk Management and Compliance department continues to monitor PEBA's compliance with state-issued information security requirements. This year, the department continued to focus on functions that exist, including updating and testing of the business continuity and incident response plans; conducting tabletop exercises of the business continuity and incident response plans; managing vendor risk; and reviewing risk mitigation strategies for the peba:connect project.

Additionally, the Director of Enterprise Risk Management and Compliance worked with executive management to create an Enterprise Risk Oversight Committee that provides formal governance to the risk program.

One of the most significant operational challenges the agency faces is the pending replacement of its legacy information systems. Linea Solutions, the client services vendor, and Icon Integration and Design, Inc., the data conversion and bridging services vendor are onsite working with PEBA staff. PEBA completed the request for

qualifications for the new system and issued the request for proposal in July 2019. The procurement is in process.

Summary of Financial Condition

Actuarial Results

The main funding objective of the pension trust funds is to meet future benefit obligations of retirees and beneficiaries through employee and employer contributions and investment earnings. Each year, the external consulting actuaries determine the actuarial soundness of the plans based on long term obligations and the sufficiency of current contribution levels to fund the liabilities of each plan over a reasonable time frame. In addition to contribution requirements, there are numerous measures used to monitor a plan's funding status including the dollar amount of the unfunded actuarial accrued liability (UAAL), the funding period and the funded ratio.

The most recent annual actuarial valuations dated July 1, 2019, determined the actuarial status of each plan and were adopted by the PEBA Board in December 2019. Under each plan, the market value of assets is less than the actuarial value of assets, which means deferred investment losses exist and will be recognized as investment losses in future years. Actuarial smoothing techniques, which defer investment gains and losses, help to dampen the short-term volatility inherent in investment markets by using a systematic approach that allows only a portion of investment gains and losses to be recognized each year. Adjusting for a five-year smoothing phase, each System recognized a net actuarial loss on investment returns for the valuation year.

Since the future recognition of deferred losses was expected to increase the UAAL for SCRS and PORS, and to help lessen the impact should actual investment returns not exceed the assumed rate of return, pension reform legislation in 2017 modified state statute to schedule additional funding. The legislation increased, but also established a ceiling for SCRS and PORS employee contribution rates. Effective July 1, 2017, employee rates were increased to a capped rate of 9.00 percent for SCRS and 9.75 percent for PORS. The legislation also increased employer contribution rates beginning July 1, 2017, for both SCRS and PORS by two percentage points and further scheduled employer contribution rates to increase again by a minimum of one percentage point each year through July 1, 2022. If the scheduled contributions are not sufficient to meet the funding periods set in state statute, the board shall increase the employer contribution rates as necessary to meet the funding periods set for the applicable year. The valuations recognize employer contribution rate increases effective July 1, 2020, for both SCRS and PORS by one percentage point to 16.56 percent and 19.24 percent, respectively. However, due to COVID 19, the General Assembly approved a one-year postponement of the one percent increase in the SCRS and PORS employer contribution rates that was scheduled to go into effect beginning July 1, 2020. The 2017 legislation also scheduled the maximum funding period of SCRS and PORS to be reduced over a 10-year schedule from 30 years beginning fiscal year 2018 to 20 years by fiscal year 2028.

As of July 1, 2019, the dollar amount of the UAAL for SCRS increased from \$22.0 billion in the prior year to \$23.0 billion and PORS increased from \$2.7 billion to \$2.9 billion. The largest source of increase was the annual accrual of interest on the UAAL and continual recognition of deferred investment losses. Absent significant favorable investment experience, those deferred losses will continue to be reflected in the actuarial value of assets over the next few years. Other non-investment related experience activity such as mortality, salary experience, payroll growth and turnover, which are considered normal within the course of plan experience, contributed to other actuarial gains and losses, as actual experience cannot be precisely predicted and will not exactly match the estimated assumptions.

Similar to mortgage financing, the UAAL of each System is paid down or amortized over a period of years after which time the plan is expected to be fully funded. The funding period for SCRS, which represents the largest membership of the five plans, decreased from 22 years in the prior year to 21 years as of July 1, 2019. The

funding period for PORS decreased from 20 years to 18 years. As mentioned above, scheduled increases in SCRS and PORS employer contribution rates and the maximum amortization period that is specified in state statute will, in time, result in improved financial security. The funding period for JSRS decreased from 28 years in the prior year to 20 years and GARS and SCNG each improved one year in accordance with the level-dollar closed period funding policy. When the funding period is less than 20 years, the contribution effort is sufficient to provide positive amortization of the unfunded actuarial accrued liability (i.e. contributions to amortize the unfunded liability exceed the interest on the unfunded liability).

The funded ratio is another measurement of a plan's funded status and it is calculated as the ratio of the actuarial value of assets to the actuarial accrued liability. The funded ratios of the five plans as of July 1, 2019, range from a low of 41.8 percent for JSRS to a high of 62.7 percent for PORS. The funded ratio for SCRS, which represents the largest membership of the five plans, decreased from 55.0 percent in fiscal year 2018 to 54.4 percent in 2019. The decrease resulted from the recognition of deferred investment losses that occurred in prior years and because the contributions to the plan attributable to financing the UAAL were less than the interest on the unfunded liability. Absent favorable investment or liability experience, the actuaries expect the funded ratio to remain relatively unchanged for the next couple of years then begin to gradually improve due to the additional funding provided by the 2017 legislation. The funded ratios for PORS and JSRS each showed a decrease while GARS and SCNG each showed a slight increase from fiscal year 2018 to 2019. Although the funded ratios of JSRS and SCNG are very low, the General Assembly is committed to ensure all plans are sufficiently funded so each year recurring funds are set aside in the state's annual budget to provide funding to JSRS and SCNG so future improvement in the funded ratios is expected.

For additional financial information, refer to management's discussion and analysis, financial statements and schedules included in the financial section and the actuarial section of this report. It is important to note that the actuarial valuations determine the funding of the pension plans; however, under standards issued by the Governmental Accounting Standards Board (GASB), Statements 67 and 68 completely disconnect the funding of pensions from the accounting and reporting of pensions.

Investment Performance

As of June 30, 2020, the custodial bank reported that the net asset value of the pension trust funds, invested and managed by the Retirement System Investment Commission (RSIC), had a fair value of \$31.0 billion. This represents a \$1 billion decrease, after payment of benefits, over the previous fiscal year end's fair value.

The Plans' assets returned negative 1.58 percent investment return, net of fees on a time-weighted calculation basis, for the fiscal year ending June 30, 2020, compared to the Policy benchmark's return of 0.13 percent. The three-year annualized net of fees return was 3.95 percent, as of the fiscal year end, compared to the Policy benchmark return of 4.59 percent. The five-year Plan annualized return and Policy benchmark return were 4.59 percent and 5.22 percent respectively.

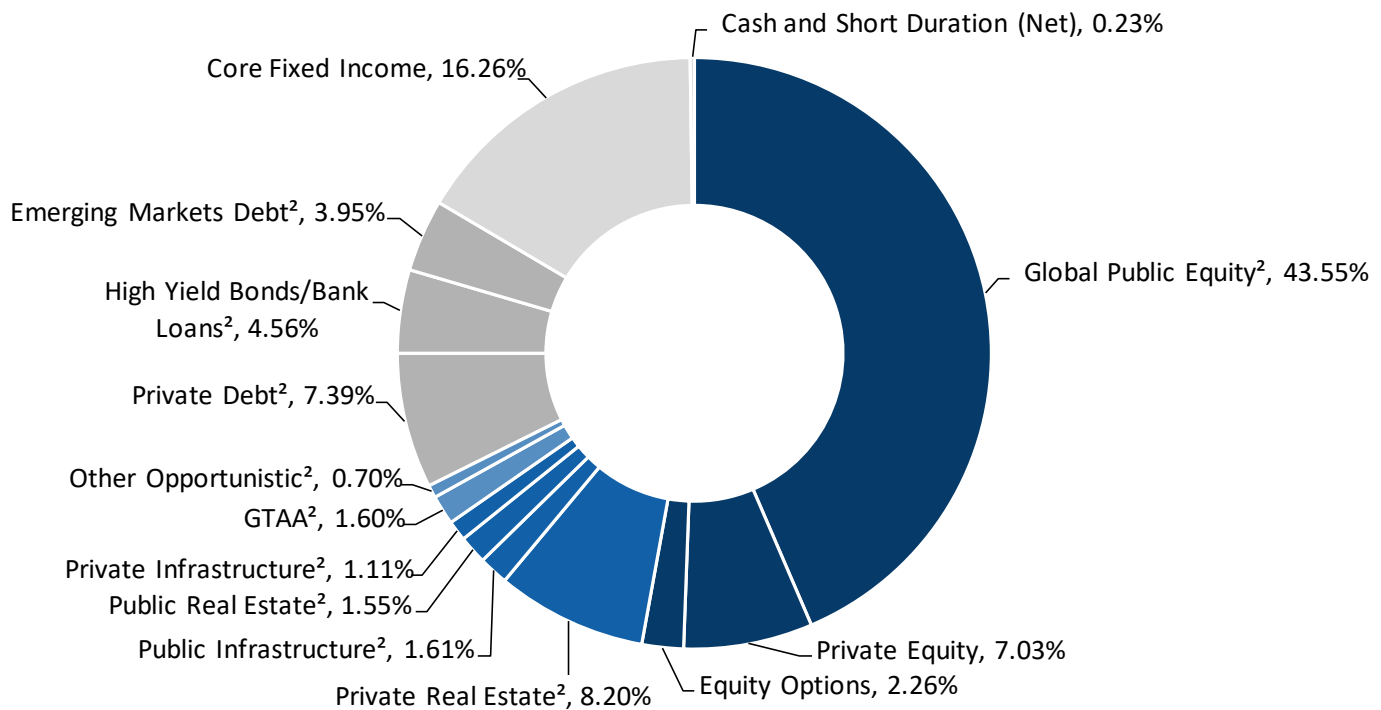
The Plan's actuarial assumed rate of return, as of fiscal year end, was 7.25 percent. Investment performance, in comparison to the actuarial assumed rate of investment return, is a significant factor in the actuarial valuations. The actuarial asset valuation method utilized dampens year-to-year fluctuations, mitigates the effect of annual return volatility in the market and helps provide a consistent estimate for the actuarial value of assets.

Based on the Commission's determination of the appropriate risk tolerance for the portfolio and its long-term return expectations, the Commission affirmed the portfolio's existing target asset allocation and did not implement any changes for the fiscal year 2020.

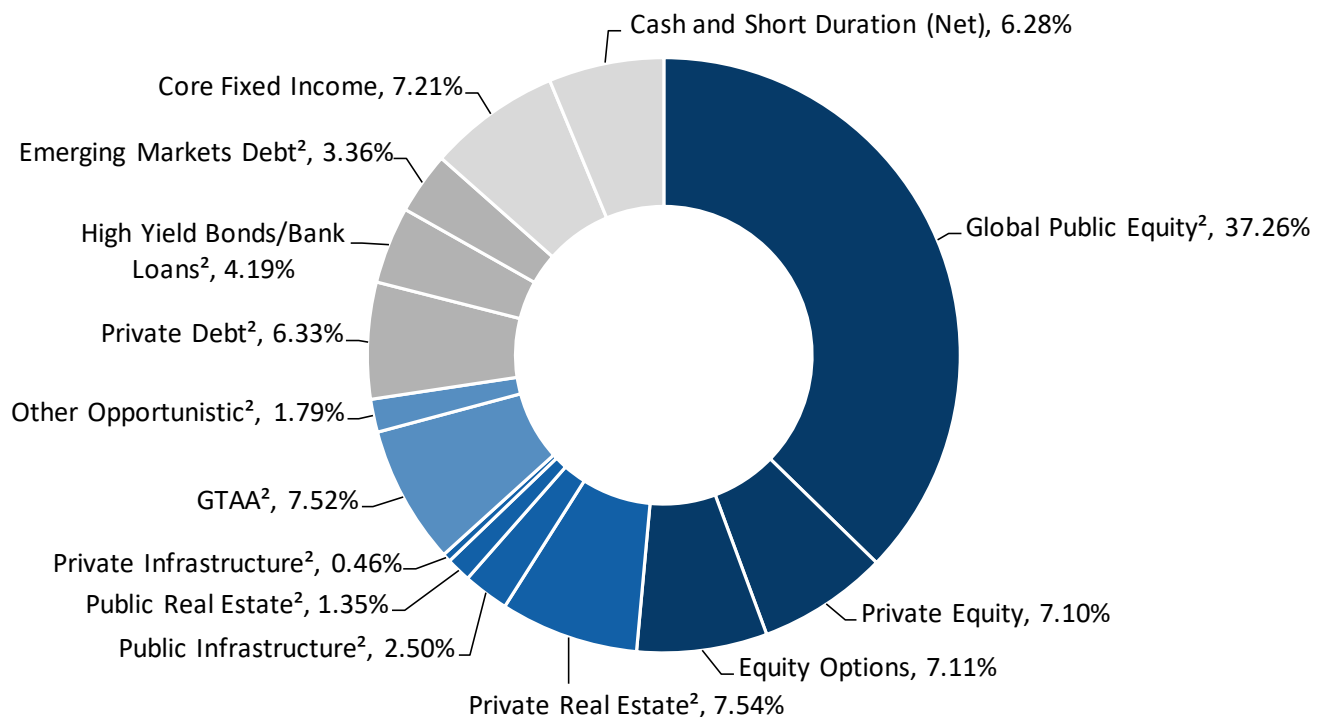
The charts on Pages 17-18 summarize the asset allocation of the Retirement Systems' trust funds for the prior and most recent fiscal years, and the RSIC's target allocation in effect as of fiscal year ended June 30, 2020.

Detailed investment results for fiscal year 2020 can be found within both the financial and investment sections of this report.

Portfolio Exposure as of June 30, 2020¹



Portfolio Exposure as of June 30, 2019¹



Global Equity
 Real Assets
 Opportunistic³
 Diversified Credit
 Conservative Fixed Income

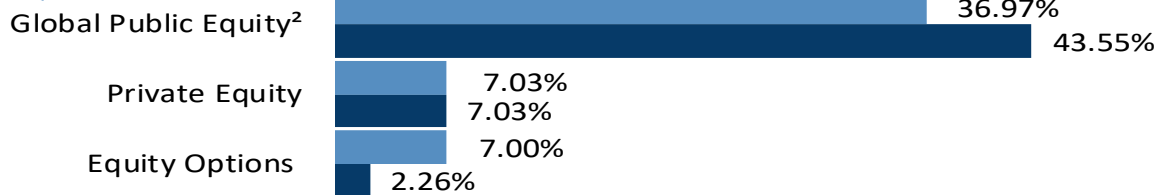
¹ Asset class exposures include exposure from RSIC's derivative overlay program.

² Asset classes in which hedge funds can be used.

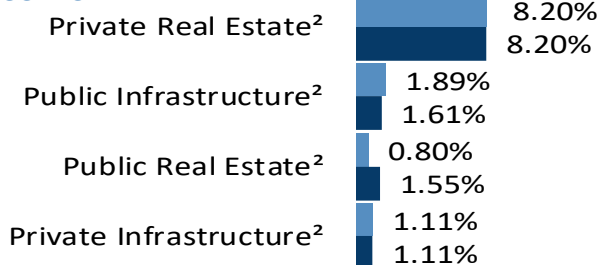
³ Portable Alpha Hedge Funds are included in the Opportunistic target allocation and as collateral supporting the Overlay program, net to zero when calculating total Plan exposure.

Portfolio Exposure and Target Asset Allocation as of June 30, 2020¹

GLOBAL EQUITY



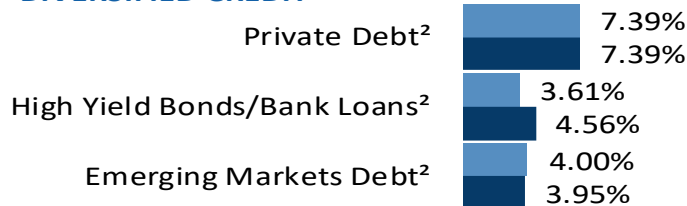
REAL ASSETS



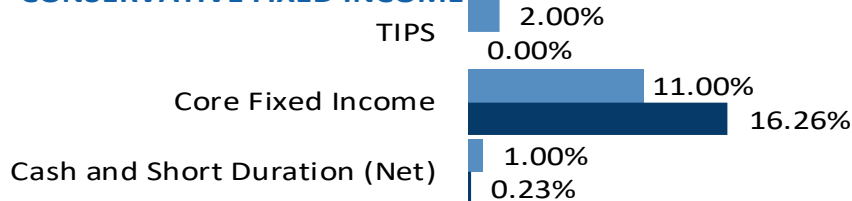
OPPORTUNISTIC³



DIVERSIFIED CREDIT



CONSERVATIVE FIXED INCOME



■ Target ■ Exposure

¹ Target Asset Allocation reflects the policy targets that were adopted by the Commission and in effect at the end of fiscal year 2020. The target weights to Private Equity, Private Debt, and Private Real Estate are equal to their actual weights, reported by the custodial bank, as of the prior month end.

² Asset classes in which hedge funds can be used.

³ Portable Alpha Hedge Funds are included in the Opportunistic target allocation and Policy benchmark as a 10% allocation but as collateral supporting the Overlay program, net to zero for the presentation of total Plan allocation.

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the South Carolina Retirement Systems for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2019. This was the 33rd consecutive year that the Retirement Systems has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to GFOA to determine its eligibility for another certificate.

Public Pension Standards Award

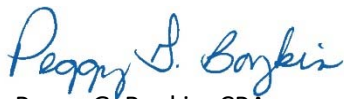
The South Carolina Retirement Systems received the Public Pension Coordinating Council's Public Pension Standards Award in 2020 for the 17th consecutive year in recognition of meeting professional plan design and administration standards. The Public Pension Coordinating Council is a confederation of the National Association of State Retirement Administrators, the National Conference on Public Employee Retirement Systems, and the National Council on Teacher Retirement.

Acknowledgments

The compilation of this report reflects the combined efforts of the staff of PEBA functioning under your leadership. The report is intended to provide comprehensive and reliable information about the Retirement Systems, to demonstrate compliance with legal provisions, and to allow for the evaluation of responsible stewardship of the trust funds of the Retirement Systems.

We express our gratitude to the Governor, the S.C. General Assembly, the S.C. State Fiscal Accountability Authority, the PEBA Board, the RSIC, the staff, the consultants, and the many people who have worked so diligently to assure the continued successful operation of the Retirement Systems for the members we serve.

Respectfully submitted,



Peggy G. Boykin, CPA
Executive Director



Travis J. Turner, CPA, CISA
Chief Financial Officer



Tammy B. Nichols, CPA
Retirement Finance Director



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**South Carolina Public Employee Benefit Authority
South Carolina Retirement Systems**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

Christopher P. Morill

Executive Director/CEO



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2020***

Presented to

South Carolina Retirement Systems

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)

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle
Program Administrator

Governing Board and Administration as of Issuance

S.C. Public Employee Benefit Authority Board of Directors

John A. Sowards, J.D., *Chairman*

Joe W. “Rocky” Pearce, Jr., *Vice Chairman*

Amanda Blankenship

Jennifer Blumenthal, J.D.

Calvin Elam, CLU, ChFC, MSFS

Stephen M. Heisler

Paige Parsons Lewis

Steve A. Matthews, J.D.

Sheriff Steve Mueller

Alexander G. Shissias, J.D.

Edward L. Walton, CPA

Retirement System Investment Commission

William H. “Bill” Hancock, CPA, *Chair*

Dr. Ronald P. “Ron” Wilder, *Vice Chair*

William J. “Bill” Condon, J.D., M.A., CPA

Allen R. Gillespie, CFA

Edward N. Giobbe, MBA

Dr. Rebecca M. Gunnlaugsson

Reynolds Williams, J.D., CFP

Peggy G. Boykin, CPA

Custodial Bank

BNY Mellon Asset Servicing

Investment Consultants

Meketa Investment Group

Albourne America, LLC

Consulting Actuaries

Gabriel, Roeder, Smith & Company

S.C. Public Employee Benefit Authority Executive Management

Peggy G. Boykin, CPA, *Executive Director*

Sarah N. Corbett, CPA, *Chief Operating Officer*

Travis J. Turner, CPA, *Chief Financial Officer*

John E. Page, CIA, CISA, CRMA, *Director of Internal Audit*

Stephen R. Van Camp, J.D., *General Counsel*

Gwen Bynoe, *Governmental Affairs*

Robin E. Tester, *Healthcare Policy Director*

James Manning, *Enterprise Risk Management and Compliance Director*

Heather Muller, *Board Liaison*

Retirement System Investment Commission Executive Management

Michael Hitchcock, *Chief Executive Officer*

Geoffrey Berg, CFA, *Chief Investment Officer*

Betsy Burn, *Chief Legal Officer*

Andrew Chernick, CPA, CAIA, *Chief Operating Officer*

S.C. Public Employee Benefit Authority staff responsible for compilation of CAFR

Tammy B. Nichols, CPA, *Retirement Finance Director*

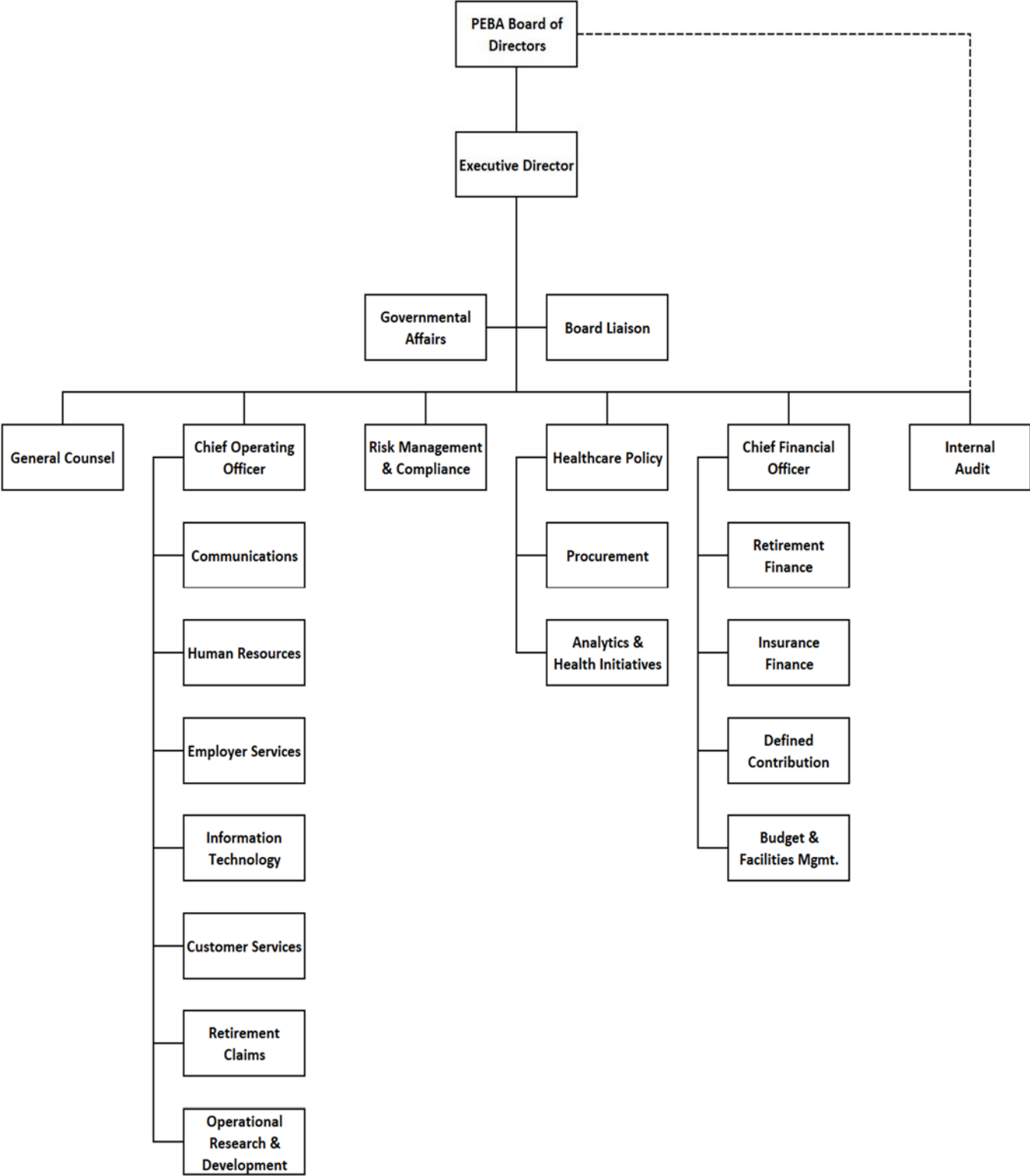
Danielle M. Quattlebaum, CPA, *Retirement Systems Finance*

Faith K. Wright, *Retirement Systems Finance*

J. Evan Mitchell, CPA, *Retirement Systems Finance*

Additional information regarding investment professionals who provide services to the System can be found in the Schedule of Investment Managers and Fees on Pages 123-127. The Schedule of Investment Fees and Commissions can be found on Page 122.

S.C. PEBA Organizational Chart



Organizational Description

The structural organization of the South Carolina Public Employee Benefit Authority (PEBA) is depicted in the organizational chart on Page 23. A brief description of the primary functions performed by each department follows:

Governmental Affairs

Serves as liaison to the SC General Assembly. Provides research and assistance to legislative staff in the provisions of retirement and health benefits, both in the service of constituents and legislation governing the agency.

General Counsel

Provides consultation to agency leadership and staff concerning the operation and compliance of governmental employee retirement and insurance benefit plans. Represents the agency in matters at the administrative, trial and appellate levels, and coordinates associated outside legal counsel.

Chief Operating Officer

Provides leadership and oversight of internal operations and administrative functions to include customer service, employer services, information technology, communications and human resources. Directs operational research and development and the development and implementation of agency strategic plans.

Risk Management and Compliance

Leads the agency in the development, implementation and monitoring of enterprise compliance programs and policies. Oversees information security and privacy programs. Develops and implements an enterprise risk management framework.

Healthcare Policy

Directs healthcare policy for the public employee insurance benefits package. Oversees the research, analysis, and pricing of the State Health Plan. Directs contract and plan compliance in offering the most cost-effective options while providing maximum benefit within regulatory requirements.

Chief Financial Officer

Directs the financial activity and financial reporting of the retirement plans and insurance benefits offered to public employees. Provides oversight and leadership to the financial operations of insurance benefits and Other Post Employment Benefit trusts, five defined benefit plans, a defined contribution plan and the deferred compensation program.

Internal Audit

Responsible to the Board of Directors for providing independent analysis and assurance of agency processes, policies and internal controls.

Financial

INDEPENDENT AUDITORS' REPORT

The Honorable Henry D. McMaster, Governor
Mr. George L. Kennedy, CPA, State Auditor,
and Board of Directors
South Carolina Public Employee Benefit Authority
Columbia, South Carolina

Report on the Financial Statements

We have audited the accompanying financial statements of the South Carolina Retirement Systems (the Systems), as administered by the South Carolina Public Employee Benefit Authority, which comprise the statement of fiduciary net position as of June 30, 2020, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

The Honorable Henry D. McMaster, Governor
Mr. George L. Kennedy, CPA, State Auditor,
and Board of Directors
South Carolina Public Employee Benefit Authority

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Systems as of June 30, 2020, and the respective changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Prior-Year Comparative Information

We have previously audited the Systems' 2019 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated October 15, 2019. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2019, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of changes in the employers' net pension liability, employers' net pension liability, employers' and nonemployer's contributions and investment returns and related notes, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the Systems' financial statements. The other supplementary information, and the introductory, investment, actuarial, and statistical sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the financial statements.

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

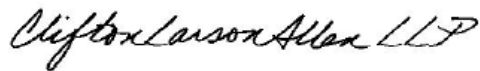
The Honorable Henry D. McMaster, Governor
Mr. George L. Kennedy, CPA, State Auditor,
and Board of Directors
South Carolina Public Employee Benefit Authority

We also previously audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Systems as of and for the year ended June 30, 2019 (not presented herein), and have issued our report thereon dated October 15, 2019, which contained an unmodified opinion on the financial statements. The summarized comparative information included in the other supplementary information, as listed in the table of contents, for the year ended June 30, 2019, is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the 2019 financial statements. The 2019 summarized comparative information has been subjected to the auditing procedures applied in the audit of the 2019 financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare those financial statements or to those financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the 2019 summarized comparative information is fairly stated in all material respects in relation to the financial statements as a whole for the year ended June 30, 2019.

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

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 15, 2020 on our consideration of the Systems' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Systems' internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Systems' internal control over financial reporting and compliance.



CliftonLarsonAllen LLP

Baltimore, Maryland
October 15, 2020

Management's Discussion and Analysis

This section presents management's discussion and analysis of the financial position and performance for the year ended June 30, 2020, for the South Carolina Retirement Systems' pension trust funds (Systems), and is offered as an introduction and analytical overview. This narrative is intended as a supplement and should be read in conjunction with the financial statements and other information presented in the Comprehensive Annual Financial Report.

The Systems' financial statements provide information about the activities of the five defined benefit pension plans administered, which are listed below, in addition to comparative summary information about the activities of the Systems as a whole:

- The South Carolina Retirement System (SCRS) - A member contributory multiple-employer plan covering teachers, as well as state and municipal employees;
- The Police Officers Retirement System (PORS) - A member contributory multiple-employer plan covering state and local law enforcement personnel and firefighters;
- The Retirement System for Members of the General Assembly of the State of South Carolina (GARS) - A member contributory plan providing benefits to members of the South Carolina General Assembly, which is closed to persons first elected to the South Carolina General Assembly at or after the general election in November 2012;
- The Retirement System for Judges and Solicitors of the State of South Carolina (JSRS) - A member contributory plan covering Judges, Solicitors, Public Defenders and Administrative Law Judges; and
- The South Carolina National Guard Supplemental Retirement Plan (SCNG) - A non-contributory supplemental benefit plan for members of the South Carolina National Guard.

Overview of the Financial Statements

The Systems represents the collective retirement funds that are held in a group trust for the plans and are protected by the state's constitution. The South Carolina Public Employee Benefit Authority (PEBA) was created July 1, 2012 and operates a Retirement Division to administer the various retirement systems and retirement programs. PEBA has an 11-member Board of Directors, appointed by the Governor and General Assembly leadership, which serves as custodian, co-trustee and co-fiduciary of the Systems and the assets of the retirement trust funds. The Retirement System Investment Commission (Commission as the governing body, RSIC as the agency), created by the General Assembly in 2005, has exclusive authority to invest and manage the retirement trust funds' assets. The Commission, an eight-member board, serves as co-trustee and co-fiduciary for the assets of the retirement trust funds. By law, the State Fiscal Accountability Authority (SFAA), which consists of five elected officials, also reviews certain PEBA Board decisions regarding the actuary of the Systems.

PEBA is considered a division of the primary government of the state of South Carolina and therefore, retirement trust fund financial information is also included in the comprehensive annual financial report of the state. Financial statements prepared on behalf of the Systems, include the following information, for the fiscal year ended June 30, 2020, with combined total comparative information for the fiscal year ended June 30, 2019:

- Statement of Fiduciary Net Position
- Statement of Changes in Fiduciary Net Position
- Notes to the Financial Statements
- Required Supplementary Information
- Other Supplementary Information

The Statement of Fiduciary Net Position presents the Systems' assets and liabilities and the resulting net position restricted for pensions. This statement reflects a year-end snapshot of the Systems' investments, at fair value, along with cash and short-term investments, receivables and other assets and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the Systems' net positions restricted for pensions changed during the year. This statement includes additions for members, employers, nonemployer and state appropriated contributions and investment earnings (losses) and deductions for retirement benefit payments, refunded contributions, death benefit payments and administrative expenses.

Notes to the Financial Statements are an integral part of the basic financial statements and provide additional information that is necessary in order to gain a comprehensive understanding of data reported in the basic financial statements.

Required Supplementary Information presents schedules pertaining to the employers' net pension liability, changes in employers' net pension liability, employers' and nonemployer's contributions, and the money-weighted rate of return on investments. These schedules are intended to provide additional information useful in evaluating the condition of the Systems.

Other Supplementary Information includes Schedules of Changes in Fiduciary Net Position by System, as well as Schedules of Administrative Expenses, Professional and Consultant Fees and Investment Fees and Expenses.

Financial Highlights

- Total fiduciary net position for all five defined benefit plans of the Systems combined, decreased by \$1.033 billion, which was over three percent from the prior fiscal year ended June 30, 2019. The net position of the plans is impacted by contributions paid into the plans, investment performance, and benefits paid out of the system. The plans are in a net cash outflow position with benefit payments exceeding contributions received; therefore, investment performance must first make up this gap before fiduciary net position can grow. Although increased contributions generated net cash outflow improvements, investment underperformance contributed to the plan's net position decline from \$32.3 billion to \$31.3 billion.
- For the fiscal year ended June 30, 2020, investment performance, net of fees, on a time-weighted basis reported by the custodial bank, the Bank of New York Mellon (BNYM), was negative 1.58 percent. The net rate of return reflects performance of the Systems, at the aggregate for the pooled investments of the consolidated pension trust funds, after the deduction for manager fees and expenses. This fiscal year's negative performance was much lower than the prior year's positive return of 5.84 percent; and additionally, since the actuarial assumed rate of return is 7.25 percent, the plan experienced actuarial losses in both fiscal years. Actuarial valuations are prepared for each of the plans annually for funding purposes, at which time gains and losses from investment performance are recognized using smoothing methods that help mitigate sharply fluctuating market returns over a long-term period. The smoothing methodology offsets both deferred investment gains and losses against each other and is intended to produce an actuarial asset value that should be reasonably consistent with fair value during periods of ordinary investment returns. Smoothing investment performance avoids overreaction to inherently volatile conditions that would otherwise overweight the effects of a single year of performance that may potentially be reversed in subsequent years. Actuarial smoothing is intended to result in more stable contribution rates and a more level funded status and is also a valuable methodology for governmental entities because it permits participating employers to plan their budgets over more than one fiscal year.

- Since March 2020, COVID-19 has continued to have an impact not only on the defined benefit pension plans, but also on PEBA's day to day operations. The pandemic has severely affected the global economy, with the volatility in global financial markets negatively impacting investment performance. Locally, many participating employers furloughed or reduced their workforce as a result of the impacts of COVID-19. The Systems' actuaries will take those workforce changes into account and will continue to monitor the Systems' payroll data to evaluate whether those workforce changes will result in a longer-term effect on covered wages and corresponding contributions to the plans. In light of potential budget volatility as a result of the pandemic, the South Carolina General Assembly adopted a continuing resolution to largely maintain the state budget for the 2021 fiscal year at the same rate as the 2020 fiscal year. Because the General Assembly did not adopt any budget increases for FY 2021, the General Assembly also postponed the one percent increase in the SCRS and PORS employer contribution rates that was scheduled to go into effect beginning July 1, 2020. In other legislative action, the earnings limit applicable to certain retired members who returned to covered employment was temporarily lifted for any member who returned to covered employment specifically to participate in the state's public health preparedness and response to the COVID-19 virus. As a temporary measure with limited scope, the impact of this relief on the plans is expected to be minimal. At the administrative level, PEBA's automated systems were modified to comply with provisions of the CARES Act that granted tax relief for certain pension distributions. From an operational perspective, PEBA's Visitor Center remains closed and in-person consultations and training sessions have been postponed or canceled; however, we have utilized technology to increase phone and video consultations, as well as implemented online presentations and videos, to ensure that we continue to provide service to our members and employers. We have also strongly encouraged employers and members to utilize our online secure portals for prompt and efficient service. The vast majority of PEBA's workforce has converted to a remote work environment and the number of staff physically working in the office has been significantly reduced. We are very fortunate in that we have continued to successfully provide critical business operations without interruption.
- Liability calculations for financial reporting purposes for each of the five defined benefit plans were performed and certified by Gabriel Roeder Smith & Company (GRS) in the GASB No. 67 Accounting Valuation Report as of June 30, 2020. The calculations presented in the accounting valuation report are not applicable for other purposes, such as determining the plans' funding requirements. The total pension liability, net pension liability, and sensitivity information for each plan are based on the actuarial valuations performed as of July 1, 2019. The total pension liability for each plan was rolled-forward from the valuation date to the plans' fiscal year ending June 30, 2020, using generally accepted actuarial principles. The Notes and Required Supplementary Information (RSI) sections of the Financial Statements include disclosures required by GASB No. 67.
- Cash and cash equivalents, receivables, and prepaid expenses reported on the condensed Statement of Fiduciary Net Position increased over 21 percent from fiscal year 2019. Although there was a sizeable decrease from \$991 million to \$107 million in the dollar amount of cash equivalents at June 30, 2020, the overall increase in this line item was primarily due to higher cash balances maintained by investment managers and investments in sweep vehicles.
- Other liabilities reported on the condensed Statement of Fiduciary Net Position increased substantially compared to the prior year as a result of accounts payable-unsettled investment purchases increasing due to timing in trading activity from \$1.281 million the prior year to \$2.535 billion as of June 30, 2020.
- The Changes in Fiduciary Net Positions reports increases in both the dollar amounts of employee and employer contributions. The rise is primarily attributable to increased employer contribution rates as well as some limited payroll growth. For fiscal year 2020, employee rates remained capped at a rate of 9.00 percent for SCRS and 9.75 percent for PORS; however, employer contribution rates for both SCRS

and PORS increased by 1 percent of pay to 15.56 percent and 18.24 percent, respectively. These employer rates are inclusive of contributions for the death benefit plan, which are only applicable to employers participating in that benefit. On May 18, 2020, Governor Henry McMaster signed H.3411, a continuing resolution, into law which includes a provision that suspends the statutory employer contribution rate increase for SCRS and PORS for Fiscal Year 2021; therefore, the employer contribution rates will remain 15.56 percent and 18.24 percent for SCRS and PORS, respectively. The employee rates will not change. In accordance with the legislative funding schedule, employer contribution rates will continue to increase by a minimum of 1 percentage point each year in accordance with state statute, and may be increased further, if the scheduled contributions are not sufficient to meet the funding periods set for the applicable year. The board shall increase the employer contribution rates as necessary to meet the amortization period set in statute.

- In an effort to help offset a portion of the increased contribution requirements for employers, the General Assembly again provided nonemployer contributions to PEBA. Based on the criteria provided in the South Carolina 2019-2020 Appropriations Act, Part IB, Section 117.131, PEBA issued credit invoices to certain SCRS and PORS employers for fiscal year 2020 who then applied the credit invoices towards contributions otherwise due to the Systems. The amount of credit invoices issued in fiscal year 2020 totaled \$88.7 million and \$12.5 million for SCRS and PORS respectively. The nonemployer contributions are the same dollar amount as the prior year. The South Carolina 2019-2020 Appropriations Act, Part IA, Section 108 also provided \$2.9 million in nonemployer contributions to JSRS.
- Annuity benefits for the five defined benefit plans, taken as a whole, increased 2.8 percent from the prior fiscal year. Among other factors, the increase resulted from the annual benefit adjustment equal to the lesser of 1 percent or \$500 granted to eligible SCRS and PORS annuity recipients effective July 1, 2019, and a slight increase in the number of annuitants. The increase also reflects the 35.8 percent increase in the monthly retirement benefits for retirees in JSRS beginning July 1, 2019.
- The Systems' investment portfolio participates in a securities lending program, managed by BNYM, whereby securities are loaned for the purpose of generating additional income. As the securities lending agent, BNYM is responsible for making loans of securities on a collateralized basis from the Systems' investment portfolio to various third-party broker-dealers and financial institutions. Securities lending revenue, net of borrower rebates, was \$2.75 million, a decrease from \$3.05 million in the prior year. As reported by BNYM, at June 30, 2020, the fair value of securities on loan was \$63.37 million, the fair value of the invested cash collateral was \$20.45 million, and the securities lending obligations were \$65.02 million. The reported difference in the value of the invested cash collateral and the securities lending obligations in the securities lending program, is reflected within "Other Liabilities" on the Retirement Systems' Statement of Fiduciary Net Position, consistent with information reported on accounting statements provided by BNYM as both the custodial bank and securities lending agent.
- The Commission operates pursuant to statutory provisions and under governance policies that allow for a diverse asset allocation and which afford the RSIC and its Chief Investment Officer (CIO) discretion and flexibility to quickly react to changes in market conditions. The Retirement Systems investment portfolio is structured to focus on ensuring the long-term stability of the plans, seeking superior returns at acceptable levels of risk.
- The Commission is responsible for establishing and managing a target asset allocation that manages risk, ensures liquidity, and as mentioned above, affords flexibility to quickly react to changes in market conditions. The policy allocation, including target weights, ranges and benchmarks for each asset class, was adopted by the Commission on April 12, 2018 for the fiscal year beginning July 1, 2018 and continued into fiscal year 2020 with no amendments.

- In accordance with SC State Statute, the Commission has exclusive authority to select the custodial bank, with PEBA as a third-party beneficiary of the contract with full rights to information. The Commission contracts with BNYM to serve as custodial bank for the Retirement Systems' funds. Under a provision of the contract for custody services and in an effort to maintain transparency, BNYM directly invoices the trust funds on a quarterly basis for both custody and other ancillary services utilized. PEBA and the RSIC jointly verify that invoices accurately reflect services rendered and are appropriate for the period before amounts are paid from the trust fund. The securities lending revenue account of the pension trust fund is the initial source from which such costs are paid to the custodial agent.
- All investment manager fees, whether directly invoiced or deducted from the fund Net Asset Value (NAV) on a net of fee basis, are classified and reported as investment expense in the Statement of Changes in Fiduciary Net Position. The RSIC takes responsibility for validating non-invoiced fees throughout the year and reports information to PEBA on an annual basis so that amounts can be reclassified and reported in the Systems' financial statements. Investment manager fees reported include management fees, performance fees and carried interest (accrued during the fiscal year), and other expenses. There is no industry standard for reporting pension plan investment fees and expenses; therefore, in order to compare investment expenses as reported by the Systems with investment management costs reported by other public pension plans, an understanding of the actual fees and expenses included in any comparative report is necessary. Total investment manager fees for fiscal year 2020 were \$217.6 million, which includes both directly invoiced amounts and amounts deducted on a net of fee basis, but excludes bank fees and other miscellaneous investment expenses. Investment manager fees for the prior fiscal year 2019 totaled \$310.2 million, so this change equates to a fee reduction of more than 40 percent. The decrease is largely attributed to lower performance fees as a result of generally lower market returns for the fiscal year in the asset classes that incur performance fees; however, the RSIC successfully renegotiated some investment manager contracts to include lower fee schedules so this also helped reduce overall fees.
- PEBA is the governing body responsible for administration of both the state's retirement plans and employee insurance programs. The proportion of administrative costs allocated for retirement operations are funded from the retirement trust funds. Administrative expenses for fiscal year 2020 decreased 8.3 percent from the prior year. This decrease resulted largely from costs associated with building and facilities maintenance and lower management professional services expenses.
- Gabriel, Roeder, Smith & Co. (GRS) is on retainer as the Systems' consulting actuary for the defined benefit retirement plans. South Carolina state statute requires that the actuary complete a valuation of the Systems annually and that an experience study be conducted at least once in each five-year period. The most recent valuation reports were issued in December 2019 reflecting the valuation of the Systems as of July 1, 2019. In late February 2020, GRS also completed an actuarial experience study on the Systems for the period ending June 30, 2019. The study was received by the PEBA Board as information at its meeting on March 4, 2020, and the Board is expected to take action on the recommendations made therein at its scheduled meeting in December 2020. This action will include adoption of a proposed assumed annual rate of return to submit to the General Assembly for consideration prior to January 1, 2021, as required by Section 9-16-335 of the Code of Laws. The experience study recommends minor adjustments to the actuarial assumptions including a decrease in payroll growth from 3.00 percent to 2.70 percent, an increase in the probabilities of retirement and turnover, an updated mortality assumption and a decrease in the probabilities of disability incidence. The experience study also recommends a decrease in the nominal investment return assumption from 7.25 percent to 7 percent for 2021 and beyond. The assumed rate of return was reduced from 7.50 to 7.25 percent effective July 1, 2017 as part of the Retirement System Funding and Administration Act of 2017. By statute, the 7.25 percent assumed rate of return is scheduled to expire on July 1, 2021, and every four

years thereafter; prior to the expiration of the assumed rate of return, the PEBA Board, in consultation with the Commission, must submit to the General Assembly for consideration a proposed assumed annual rate of return based on recommendations of the Systems' actuary. Once formally adopted, the recommended assumption and method changes will be incorporated into future valuations.

- As a cost-sharing multiple-employer defined benefit pension plan, PEBA works closely with our consulting actuary and external audit firm to ensure employers are provided with pension information needed to prepare their GAAP based financial statements in compliance with Governmental Accounting Standards Board (GASB), specifically Statements No. 68, 71 and 82. PEBA's public website includes a dedicated GASB section where information is posted for participating employers and auditors to access financial statement disclosure information related to their proportionate share of the net pension liability, deferred inflows and outflows of resources and pension expense.
- All of the plans (excluding SCNG) include certain provisions that allow retired members to return to covered employment while also receiving a monthly retirement benefit. For any member who returns to work for a covered employer after retirement, the employer must pay the corresponding employer contribution for that particular plan, and under SCRS, PORS and JSRS, retired members are also required to pay the same employee contribution as an active member in the same position. As of June 30, 2019, the actuarial valuations for SCRS and PORS collectively reported that over 16,000 retired members were working for a covered employer while receiving monthly retirement benefits, thereby making up almost 6 percent of the total public workforce covered by the Systems. The historical return-to-work provisions, coupled with demographic changes of the membership, caused concern over the long-term stability of the plan so legislation enacted in 2012 addressed retiree return-to-work provisions. Generally, SCRS and PORS members may return to covered employment after retirement. However, members who retired after January 1, 2013 and who had not reached age 62 (SCRS) or age 57 (PORS) at retirement, are subject to an earnings limit of \$10,000 each calendar year on wages earned from covered employment. Additionally, all retired members must have been retired a minimum of 30 calendar days before returning to work for a participating employer.
- Qualified Excess Benefit Arrangement (QEBA) trust funds are maintained for each of the plans administered by the Retirement Division of PEBA (excluding SCNG). A QEBA is intended to be a qualified governmental excess benefit arrangement within the meaning of Section 415(m)(3) of the Internal Revenue Code and provides the part of a participant's retirement benefit that would have been paid by the Systems had there been no limitations under Code Section 415(b). The QEBA plans are separate and apart from the funds comprising the retirement funds and are not commingled with assets of those funds. The QEBA is not prefunded; therefore, no assets or income are accumulated to pay future benefits. The amount of required contributions necessary to pay benefits under the plans is determined and deposited to the trust funds on an as-needed basis. Employer contributions to fund the excess benefits are not credited or commingled with contributions paid into and accumulated in the retirement funds.
- GARS was closed to persons first elected to the South Carolina General Assembly at or after the general election in November 2012. Members so elected to the SC Senate or House of Representatives have the option to join SCRS, the State Optional Retirement Program (State ORP), which is a defined contribution plan, or they may elect to opt out of a plan altogether. As a result of the plan closure, employee contributions to the GARS plan should decrease over time, while employer contributions may experience a general increase over time.

Condensed Financial Information

The Systems' financial stability and long-term ability to sufficiently fund retirement benefits payable to members in future years is viable because funds are accumulated and invested on a regular and systematic basis. The five defined benefit funds provide monthly service retirement benefits, disability benefits and death benefits to eligible members and/or their surviving beneficiaries.

The Systems' principal sources of revenue are employee contributions, employer contributions and investment earnings. In addition, for fiscal year 2020, the General Assembly provided funds to PEBA through legislative appropriations that are classified as non-employer contributions by the Systems. A portion of the appropriated funds were made available for PEBA to distribute to participating employers in the form of a credit to be used towards contributions due to SCRS and PORS and a portion of the funds were appropriated as additional contributions to JSRS. Required annual contributions for the SCNG are also funded through an annual state appropriation. Expenses of the Systems consist primarily of payments of monthly annuities to retired members or their beneficiaries, and refunds of member contributions and interest that are paid subsequent to termination of employment. The defined benefit plans include an incidental death benefit that employers may elect to participate in which provides benefits for both active and retired members and PORS also includes an accidental death plan that provides benefits for members of PORS.

PEBA sponsors the State ORP which is a defined contribution plan administered by four different third-party service providers. State ORP is an alternative plan available to newly hired employees of state agencies, higher education institutions, public school districts and individuals first elected to the General Assembly at or after the general election in November 2012. In addition, PEBA is responsible for the South Carolina Deferred Compensation Program, which offers 401(k) and 457 plans, and is administered by a third-party record keeper. Both State ORP and Deferred Compensation assets are not considered part of the Retirement Systems for financial statement purposes. Summary comparative financial statements of the SC Retirement Systems' pension trust funds are presented on the following page.

Fiduciary Net Position

As of June 30

(Amounts expressed in thousands)

Assets	2020	2019	Increase / (Decrease)	% Increase / (Decrease)
Cash and cash equivalents, receivables, and prepaid expenses	\$ 5,249,820	\$ 4,323,924	\$ 925,896	21.41%
Investments, at fair value	28,875,414	29,547,472	(672,058)	(2.27%)
Securities lending cash collateral invested	20,452	41,327	(20,875)	(50.51%)
Capital assets, net of accumulated depreciation	2,156	2,232	(76)	(3.41%)
Total assets	34,147,842	33,914,955	232,887	0.69%
Liabilities				
Deferred retirement benefits		70	(70)	(100.00%)
Obligations under securities lending	20,452	41,327	(20,875)	(50.51%)
Other liabilities	2,874,001	1,587,595	1,286,406	81.03%
Total liabilities	2,894,453	1,628,992	1,265,461	77.68%
Net Position Restricted for Pensions	\$ 31,253,389	\$ 32,285,963	\$ (1,032,574)	(3.20%)

Changes in Fiduciary Net Position

Years Ended June 30

(Amounts expressed in thousands)

Additions	2020	2019	Increase / (Decrease)	% Increase / (Decrease)
Employee contributions	\$ 1,079,562	\$ 1,028,413	\$ 51,149	4.97%
Employer contributions	1,936,319	1,705,663	230,656	13.52%
Nonemployer contributions	104,076	101,176	2,900	2.87%
State appropriated contributions	5,290	5,290	-	0.00%
Net investment income (loss)	(523,842)	1,776,400	(2,300,242)	(129.49%)
Other income	1,862	1,577	285	18.07%
Total additions	2,603,267	4,618,519	(2,015,252)	(43.63%)
Deductions				
Annuity benefits	3,451,616	3,356,747	94,869	2.83%
Refunds	140,534	139,692	842	0.60%
Death benefits	25,324	23,717	1,607	6.78%
Administrative and other expenses	18,367	19,504	(1,137)	(5.83%)
Total deductions	3,635,841	3,539,660	96,181	2.72%
Net increase (decrease) in Net Position	(1,032,574)	1,078,859	(2,111,433)	(195.71%)
Net Position Restricted for Pensions				
Beginning of year	32,285,963	31,207,104	1,078,859	3.46%
End of year	\$ 31,253,389	\$ 32,285,963	\$ (1,032,574)	(3.20%)

Analysis of the Plan's Financial Position and Results of Operations

On a combined basis, the defined benefit plans' fiduciary net position was \$31.3 billion at June 30, 2020. This represents a decrease of more than three percent from the previous fiscal year-end. As explained in the financial highlights section, the fiduciary net position went down primarily due to poor investment performance. Although increased contributions generated improvements in net cash outflows, investment underperformance contributed to the plan's net position declining from \$32.3 billion in the prior fiscal year.

During fiscal year 2020, the total dollar amount of contributions added to the plans increased because of higher employer contribution rates and additional non-employer funding provided. Amounts paid out of the plans also increased marginally compared with the previous year because of an increase in regular monthly annuity benefits paid. There was a minimal increase in the number of annuitants but more predominantly, the increase was the result of the annual benefit adjustment equal to the lesser of 1 percent or \$500 that was granted to eligible SCRS and PORS annuity recipients effective July 1, 2019.

Net of fee performance return, on a time-weighted basis was negative 1.58 percent for the fiscal year. Relative to the policy benchmark, which returned 0.13 percent, the Plan underperformed by 171 basis points. Additionally, the Plan fell short of the actuarial assumed rate of return of 7.25 percent by 883 basis points.

The Core Fixed Income and the TIPS asset classes were the highest performing asset classes on an absolute basis returning 8.49 percent and 7.97 percent. They both trailed their benchmarks by 25 basis points and 31 basis points respectively. Private Real Estate was the next highest performer returning 3.43 percent versus a benchmark return of 2.33 percent while Public Real Estate outperformed its benchmark by 516 basis points with a return of negative 7.88 percent. The Global Public Equity asset class, the largest allocation in the Plan at 43.5 percent, returned 0.68 percent slightly trailing its benchmark by 16 basis points. The Portable Alpha Hedge Funds excess return over three-month LIBOR was a negative 0.98 percent and underperformed its benchmark return of 2.50 percent. Both Public Infrastructure and Private Infrastructure were negative performers at negative 0.97 percent and negative 1.82 percent but outperformed their benchmarks by 502 basis points and 417 basis points respectively. The High Yield/Bank Loans asset class returned negative 1.07 percent versus its benchmark return of negative 1.00 percent. The Equity Options asset class outperformed its benchmark by 759 basis points with a return of negative 1.63 percent. The Emerging Markets Debt and GTAAN asset classes returned negative 4.31 percent versus a negative 1.10 percent benchmark return and negative 5.49 percent versus a 0.89 percent benchmark return, respectively. Private Debt exceeded its benchmark by 202 basis points with a return of negative 5.64 percent. The Private Equity asset class returned negative 6.75 percent beating its benchmark by 43 basis points. The Other Opportunistic asset class was the lowest performing asset class both on an absolute and relative basis returning negative 22.45 percent versus a benchmark return of 0.89 percent. Asset class returns include the impact of synthetic returns generated from the overlay portfolio.

Actuarial Valuations and Funding Progress

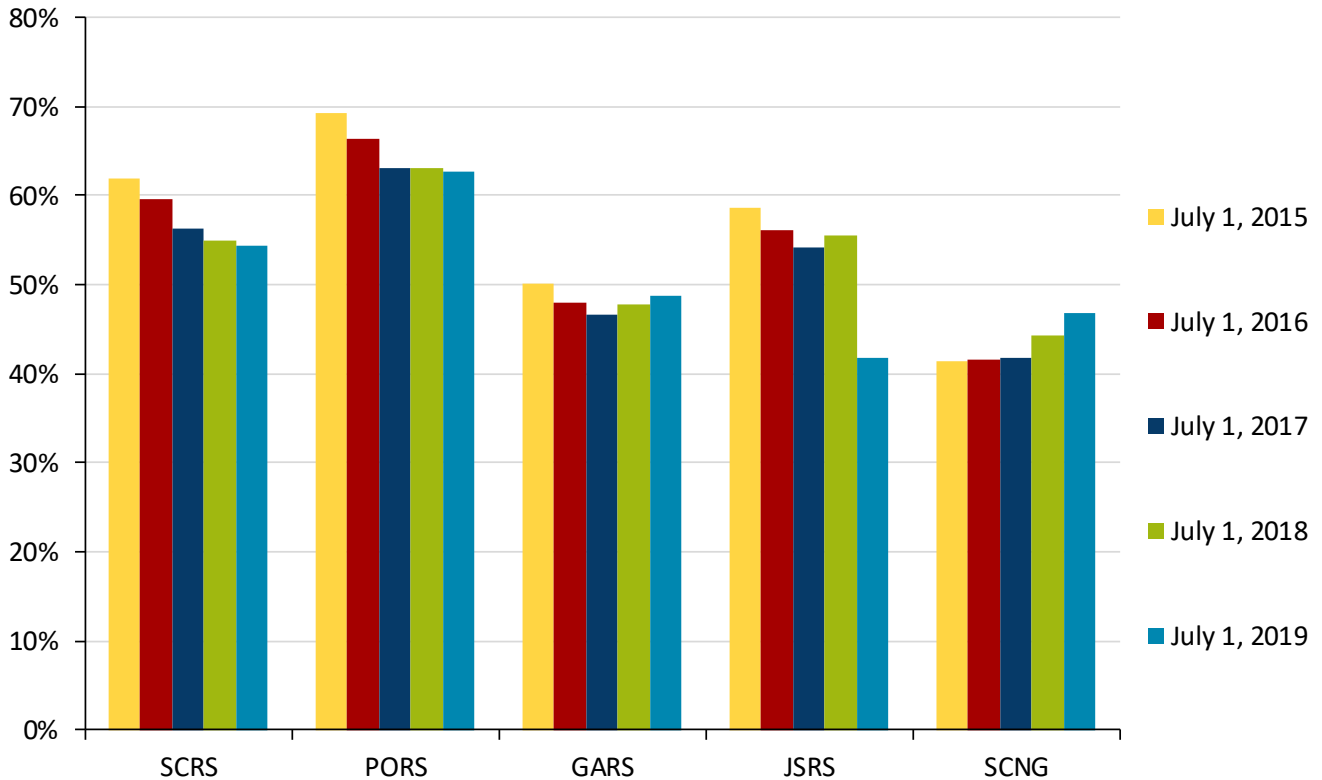
Actuarial valuations are performed annually by an external consulting actuary for each of the five defined benefit plans to ensure applicable contribution rates satisfy the funding parameters specified in Title 9 of the South Carolina Code of Laws. Under these provisions, SCRS and PORS contribution requirements must be sufficient to maintain an amortization period for the financing of the unfunded actuarial accrued liability (UAAL) over a period that does not exceed the number of years scheduled in state statute. Additionally, the Board is prohibited from decreasing the SCRS and PORS contribution rates until the funded ratio is at least 85 percent. The Retirement System Funding and Administration Act of 2017, which became effective on July 1, 2017, schedules the amortization period to be reduced by one year for each of the next 8 years to 20 years. Over time, and provided investment performance meets long-term assumptions and there are no future benefit enhancements, the funded ratio of each system is expected to improve significantly.

For purposes of developing the actuarially determined contribution rate, the most recently completed valuations prepared as of July 1, 2019, recognized investment performance using the smoothing method, which recognizes each year's investment gain or loss, determined on a fair value of assets basis, over a closed five year period at a rate of 20 percent per year. This asset valuation method mitigates the short-term impact of market volatility and allows changes in market conditions to be recognized (smoothed) over a longer period of time. In contrast, the accounting valuation report determines the plan fiduciary net position for the purpose of providing accounting information under GASB Statement No. 67, which uses a fair value basis. Since the valuation report prepared for accounting purposes uses the fair value of assets rather than the actuarial value of assets, the ratio of plan fiduciary net position to the total pension liability can result in significant short-term volatility.

Actuarial valuations are prepared for funding purposes and the funded ratio (the ratio of the actuarial assets to the actuarial accrued liability) is a standard of measure of a plan's funded status. It provides an indication as to whether sufficient assets are accumulated to pay benefits when due; the greater the level of funding, the larger the ratio of assets to liabilities. The funding progress of a retirement system should be reviewed over a multi-year period, such as five to ten years, to identify trends in the system's funded status. The most recent actuarial valuations prepared for funding purposes as of July 1, 2019, showed a slight decrease in funded status for SCRS and PORS while the funded ratios for GARS and SCNG showed slight improvements. With regard to JSRS, in an effort to attract and retain judges in the state, the General Assembly approved a 35.8 percent salary increase for judges and certain other JSRS members effective July 1, 2019. Although this salary increase and corresponding benefit adjustment for retired members and beneficiaries resulted in a decrease in the funded status for JSRS to 41.8 percent, the General Assembly made a commitment to sufficiently fund the plan and these benefit improvements by increasing the employer contribution rate from 52.49 percent to 62.94 percent, effective July 1, 2019, and by appropriating additional funding of \$2.9 million per year as nonemployer contributions. The changes in funded ratios do not affect the availability of funds or resources for future use, and considering scheduled contributions, actuarial projections indicate that unfunded liabilities should be amortized and funded within the guidelines established in Title 9 of the SC Code of Laws. The actuarial funded ratios of the five plans are presented in the graph on the following page. Percentages for GASB Statement No. 67 reporting purposes can be found in the Schedule of Employers' Net Pension Liability beginning on page 88.

Actuarial Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)



Requests for Information

This financial report is designed to provide a general overview of the Retirement Systems' financial activities and position for all interested parties. Questions concerning any of the information provided in this report or requests for additional financial information should be directed to the South Carolina PEBA, Attn: Retirement Systems Finance, 202 Arbor Lake Drive, Columbia, SC 29223. Inquiries may also be made at www.peba.sc.gov or by calling 888.260.9430.

South Carolina Retirement Systems

Statement of Fiduciary Net Position

June 30, 2020

With summarized comparative totals for June 30, 2019

(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTAL	2019 TOTAL
Assets							
Cash and cash equivalents	\$ 2,933,744	\$ 536,560	\$ 6,566	\$ 23,387	\$ 7,495	\$ 3,507,752	\$ 2,518,227
Receivables							
Due from other systems	48	96				144	119
Employee and employer contributions	259,921	29,406	15	1,487		290,829	337,077
Accrued investment income	34,588	6,217	42	210	36	41,093	49,015
Unsettled investment sales	1,185,716	213,103	1,425	7,182	1,207	1,408,633	1,411,101
Other investment receivables	486	87	1	3	1	578	4,510
Total receivables	1,480,759	248,909	1,483	8,882	1,244	1,741,277	1,801,822
Investments, at fair value							
Short-term securities	272,550	48,984	328	1,651	277	323,790	402,848
Fixed Income	3,207,714	576,508	3,856	19,429	3,265	3,810,772	4,619,478
Global Public Equity	11,678,233	2,098,875	14,039	70,734	11,888	13,873,769	11,641,619
Opportunistic	191,951	34,499	231	1,163	195	228,039	2,725,271
Alternatives	8,955,407	1,609,513	10,766	54,242	9,116	10,639,044	10,158,256
Total investments	24,305,855	4,368,379	29,220	147,219	24,741	28,875,414	29,547,472
Securities lending cash collateral invested	17,216	3,094	21	104	17	20,452	41,327
Prepaid expenses	674	111	1	4	1	791	3,875
Capital assets, net of accumulated depreciation	1,938	203	6	9		2,156	2,232
Total assets	28,740,186	5,157,256	37,297	179,605	33,498	34,147,842	33,914,955
Liabilities							
Due to other systems	96			48		144	119
Accounts payable - unsettled investment purchases	2,133,526	383,449	2,565	12,922	2,172	2,534,634	1,281,247
Investment fees payable	6,557	1,178	8	40	7	7,790	11,558
Obligations under securities lending	17,216	3,094	21	104	17	20,452	41,327
Deferred retirement benefits						-	70
Due to Employee Insurance Program	78,835	1,447				80,282	73,901
Benefits payable	5,144	421	2		2	5,569	5,287
Other liabilities	206,394	37,492	247	1,241	208	245,582	215,483
Total liabilities	2,447,768	427,081	2,843	14,355	2,406	2,894,453	1,628,992
Net Position Restricted for Pensions	\$ 26,292,418	\$ 4,730,175	\$ 34,454	\$ 165,250	\$ 31,092	\$ 31,253,389	\$ 32,285,963

The accompanying notes are an integral part of these financial statements.

South Carolina Retirement Systems

Statement of Changes in Fiduciary Net Position

Year Ended June 30, 2020

With summarized comparative totals for the year ended June 30, 2019

(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTAL	2019 TOTAL
Additions							
Contributions							
Employee	\$ 922,539	\$ 151,835	\$ 222	\$ 4,966		\$ 1,079,562	\$ 1,028,413
Employer	1,647,757	263,135	6,329	19,098		1,936,319	1,705,663
Nonemployer	88,706	12,470		2,900		104,076	101,176
State appropriated					5,290	5,290	5,290
Total contributions	2,659,002	427,440	6,551	26,964	5,290	3,125,247	2,840,542
Investment income							
Net appreciation (depreciation) in fair value of investments	(762,375)	(136,295)	(908)	(4,575)	(769)	(904,922)	1,487,314
Interest and dividend income	513,357	91,666	695	3,375	613	609,706	617,578
Investment expense	(194,878)	(34,890)	(233)	(1,175)	(198)	(231,374)	(331,539)
Net income (loss) from investing activities	(443,896)	(79,519)	(446)	(2,375)	(354)	(526,590)	1,773,353
From securities lending activities:							
Securities lending income	2,167	386	3	13	2	2,571	3,342
Securities lending borrower rebates	149	27		1		177	(295)
Net income from securities lending activities	2,316	413	3	14	2	2,748	3,047
Total net investment income (loss)	(441,580)	(79,106)	(443)	(2,361)	(352)	(523,842)	1,776,400
Supplemental retirement benefits funded by the State	291	10				301	333
Transfers of contributions from other Systems		998		563		1,561	1,244
Total additions	2,217,713	349,342	6,108	25,166	4,938	2,603,267	4,618,519
Deductions							
Refunds of contributions to members	117,860	22,492		182		140,534	139,692
Transfers of contributions to other Systems	1,547	14				1,561	1,244
Regular retirement benefits	3,007,545	405,790	6,323	24,845	4,514	3,449,017	3,354,605
Deferred retirement benefits				456		456	
Supplemental retirement benefits	291	10				301	333
Death benefits	22,750	2,359	25	190		25,324	23,717
Accidental death benefits		1,842				1,842	1,809
Depreciation	146	18		1		165	171
Administrative expenses	14,072	2,451	18	85	15	16,641	18,089
Total deductions	3,164,211	434,976	6,366	25,759	4,529	3,635,841	3,539,660
Net increase (decrease) in Net Position	(946,498)	(85,634)	(258)	(593)	409	(1,032,574)	1,078,859
Net Position Restricted for Pensions							
Beginning of year	27,238,916	4,815,809	34,712	165,843	30,683	32,285,963	31,207,104
End of year	\$ 26,292,418	\$ 4,730,175	\$ 34,454	\$ 165,250	\$ 31,092	\$ 31,253,389	\$ 32,285,963

The accompanying notes are an integral part of these financial statements

South Carolina Retirement Systems

Notes to Financial Statements

I. Basis of Presentation and Summary of Significant Accounting Policies

Description of the Entity

The South Carolina Public Employee Benefit Authority (PEBA) was created by the S.C. General Assembly effective July 1, 2012. PEBA is a state agency responsible for the administration and management of the state's employee insurance programs and retirement systems.

The governing board of the authority is a board of directors consisting of 11 members. The membership composition is as follows:

- three non-representative members appointed by the Governor;
- two members appointed by the President Pro Tempore of the Senate, one a non-representative member and one a representative member who is either an active or retired member of the South Carolina Police Officers Retirement System (PORS);
- two members appointed by the Chairman of the Senate Finance Committee, one a non-representative member and one a representative member who is a retired member of the South Carolina Retirement System (SCRS);
- two members appointed by the Speaker of the House of Representatives, one a non-representative member and one a representative member who must be a state employee who is an active contributing member of SCRS;
- two members appointed by the Chairman of the House Ways and Means Committee, one a non-representative member and one a representative member who is an active contributing member of SCRS employed by a public school district.

Non-representative members of the PEBA board may not belong to the classes of employees and retirees from which representative members must

be appointed. Individuals appointed to the PEBA board must possess certain qualifications.

Members of the PEBA board serve for terms of four years, on a staggered schedule and until their successors are appointed and qualify. Vacancies on the PEBA Board must be filled within 60 days in the manner of the original appointment for the unexpired portion of the term.

The financial statements of the South Carolina Retirement Systems (Systems) presented herein contain the following funds:

Pension Trust Funds

- South Carolina Retirement System (SCRS)
- South Carolina Police Officers Retirement System (PORS)
- Retirement System for Members of the General Assembly of the State of South Carolina (GARS)
- Retirement System for Judges and Solicitors of the State of South Carolina (JSRS)
- South Carolina National Guard Supplemental Retirement Plan (SCNG)

Each pension trust fund operates on an autonomous basis; funds may not be utilized for any purpose other than for the benefit of each plan's participants.

The Systems are part of the state of South Carolina's primary government and are included in the *Comprehensive Annual Financial Report of the State of South Carolina*. In making this determination, factors of financial accountability, governance and fiduciary responsibility of the state were considered.

Plan Descriptions

The South Carolina Retirement System (SCRS), a cost-sharing multiple-employer defined benefit pension plan, was established effective July 1, 1945,

pursuant to the provisions of Section 9-1-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for public school districts and employees of the state and political subdivisions thereof.

The South Carolina Police Officers Retirement System (PORS), a cost-sharing multiple-employer defined benefit pension plan, was established effective July 1, 1962, pursuant to the provisions of Section 9-11-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for police officers and firemen of the state and its political subdivisions.

The Retirement System for Members of the General Assembly of the State of South Carolina (GARS), a single-employer defined benefit pension plan, was created effective January 1, 1966, pursuant to the provisions of Section 9-9-20 of the South Carolina Code of Laws to provide retirement allowances and other benefits for members of the General Assembly. Retirement reform legislation closed the

plan to individuals newly elected to the Senate or House of Representatives on or after the general election of 2012.

The Retirement System for Judges and Solicitors of the State of South Carolina (JSRS), a single-employer defined benefit pension plan, was created effective July 1, 1979, pursuant to the provisions of Section 9-8-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for judges, solicitors, circuit public defenders of the state and administrative law court judges.

The South Carolina National Guard Supplemental Retirement Plan (SCNG), a single-employer defined benefit pension plan, was created effective July 1, 1975, and is governed by the provisions of Section 9-10-30 of the South Carolina Code of Laws for the purpose of providing supplemental retirement benefits to certain members who served in the South Carolina National Guard.

A summary of information related to employers and members follows (dollar amounts expressed in thousands). This information was reported in the most recent actuarial valuation as of July 1, 2019.

	State	School	Other	Total
SCRS				
Number of Employers ¹	34	118	578	730
Annualized Prior Year Compensation for Active Members	\$2,634,376	\$3,775,414	\$2,479,354	\$8,889,144
Average Number of:				
Active Contributing Members	54,180	89,477	56,607	200,264
Retirees and beneficiaries currently receiving benefits				144,292
Terminated members entitled to but not yet receiving benefits ²				191,113
Total SCRS Membership				535,669
PORS				
Number of Employers ¹	22	3	287	312
Annualized Prior Year Compensation for Active Members	\$409,165		\$904,019	\$1,313,184
Average Number of:				
Active Contributing Members	9,077		18,320	27,397
Retirees and beneficiaries currently receiving benefits				19,094
Terminated members entitled to but not yet receiving benefits ²				17,944
Total PORS Membership				64,435
GARS				
Number of Employers	1			1
Annualized Prior Year Compensation for Active Members	\$1,570			\$1,570
Average Number of:				
Active Members	88			88
Retirees and beneficiaries currently receiving benefits	345			345
Terminated members entitled to but not yet receiving benefits	36			36
Total GARS Membership	469			469
JSRS				
Number of Employers	1			1
Annualized Prior Year Compensation for Active Members	\$30,346			\$30,346
Average Number of:				
Active Members (160 positions)	160			160
Retirees and beneficiaries currently receiving benefits ³	218			218
Terminated members entitled to but not yet receiving benefits	6			6
Total JSRS Membership	384			384
SCNG				
Number of Employers	1			1
Annualized Prior Year Compensation for Active Members ⁴	N/A			N/A
Average Number of:				
Active Members	12,100			12,100
Retirees and beneficiaries currently receiving benefits	4,923			4,923
Terminated members entitled to but not yet receiving benefits	1,823			1,823
Total SCNG Membership	18,846			18,846

¹ Although there are 86 SCRS, 25 PORS, 2 GARS and 4 JSRS state agencies that report separately, the State is considered the primary government and therefore, all state agencies are included as a single employer. Institutions of Higher Education and Quasi-State Agencies are counted as separate employers and included within the "State" category. This schedule includes only employers that submitted contributions for an active member during the fiscal year.

² Employee Class not determinable from data.

³ Count includes 21 retired-in-place members as of July 1, 2019

⁴ Annualized Prior Year Compensation is not applicable for SCNG because it is a non-contributory plan.

Membership

Membership requirements are prescribed in Title 9 of the South Carolina Code of Laws. A brief summary of the requirements under each system is presented below.

SCRS

Generally, all employees of covered employers are required to participate in and contribute to the system as a condition of employment. This plan covers general employees and teachers and individuals newly elected to the South Carolina General Assembly beginning with the November 2012 general election. A member of the system with an effective date of membership prior to July 1, 2012, is a Class Two member. A member of the system with an effective date of membership on or after July 1, 2012, is a Class Three member.

State ORP

As an alternative to membership in SCRS, newly hired state, public school and higher education employees and individuals newly elected to the S.C. General Assembly beginning with the November 2012 general election have the option to participate in the State Optional Retirement Program (State ORP), which is a defined contribution plan. State ORP participants direct the investment of their funds into an account administered by one of four third-party service providers. The Retirement Systems assumes no liability for State ORP benefits. Rather, the benefits are the liability of the four third-party service providers. For this reason, State ORP assets are not considered part of the Systems for financial statement purposes.

Contributions to the State ORP are at the same rates as SCRS. A direct remittance is required from the employers to the investment providers for the employee contribution (9 percent) and a portion of the employer contribution (5 percent). A direct remittance is also required to SCRS for a portion of the employer contribution (10.41 percent) and a death benefit contribution (0.15 percent), which is retained by SCRS. The activity for the State ORP is as follows:

State ORP Activity

Year Ended June 30, 2020

(Dollar amounts expressed in thousands)

Active Contributing Participants	33,295
Compensation of Participants	\$1,754,009
Employer Contributions Retained by SCRS	\$182,215
Death Benefit Contributions Retained by SCRS	\$2,628
Employee Contributions to Investment Providers	\$157,861
Employer Contributions to Investment Providers	\$87,700

PORS

To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property and detect crimes in the state; to prevent and control property destruction by fire; be a coroner in a full-time permanent position; or be a peace officer employed by the Department of Corrections, the Department of Juvenile Justice or the Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute. A member of the system with an effective date of membership prior to July 1, 2012, is a Class Two member. A member of the system with an effective date of membership on or after July 1, 2012, is a Class Three member.

GARS

Members of the Senate and the House of Representatives who were first elected to office prior to November 2012 are required to participate in and contribute to the system upon taking office as a member of the S.C. General Assembly; however, the GARS plan is closed to individuals newly elected to the Senate or the House of Representatives on or after the general election of 2012.

JSRS

All solicitors, circuit public defenders, judges of a Circuit, Family or Administrative Law Court and justices of the Court of Appeals and Supreme Court are required to participate in and contribute to the system upon taking office.

SCNG

Membership consists of individuals who serve in the South Carolina National Guard.

Pension Benefits

Benefit terms are prescribed in Title 9 of the South Carolina Code of Laws. PEBA does not have the authority to establish or amend benefit terms without a change in the code of laws. Key elements of the benefit calculation include the benefit multiplier, years of service and average final compensation/current annual salary. A brief summary of benefit terms for each system is presented below.

SCRS

A Class II member who has separated from service with at least five years of earned service is eligible for a monthly pension at age 65 or with 28 years credited service regardless of age. A member may elect early retirement with reduced pension benefits payable at age 55 with 25 years of service credit. A Class III member who has separated from service with at least eight years of earned service is eligible for a monthly pension subject to the Rule of 90 requirement that the total of the member's age and the member's creditable service equals at least 90 years. Both Class II and Class III members are eligible to receive a reduced deferred annuity at age 60 if they satisfy the five- or eight-year earned service requirement, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program.

The annual retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of one percent or five hundred dollars every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase. Members who retire under the early retirement provisions at age 55 with 25 years

of service are not eligible for the benefit adjustment until the second July 1 after reaching age 60 or the second July 1 after the date they would have had 28 years of service credit had they not retired.

PORS

A Class II member who has separated from service with at least five years of earned service is eligible for a monthly pension at age 55 or with 25 years of service regardless of age. A Class III member who has separated from service with at least eight years of earned service is eligible for a monthly pension at age 55 or with 27 years of service regardless of age. Both Class II and Class III members are eligible to receive a deferred annuity at age 55 with five or eight years earned service, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program. Accidental death benefits are also provided upon the death of an active member working for a covered employer whose death was a natural and proximate result of an injury incurred while in the performance of duty.

The retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of one percent or five hundred dollars every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase.

GARS

A member is eligible for a monthly pension at age 60 or with 30 years credited service. A member who has attained age 70 or has 30 years of service is eligible to retire and draw an annuity while continuing to serve in the General Assembly. A member is eligible to receive a deferred annuity with eight years of service. An incidental death benefit is also provided to beneficiaries of deceased members. Retirees receive increases in benefits based upon increases in the current salary of their respective active positions. GARS is closed to new members and persons newly elected to the General Assembly must elect membership in SCRS or State ORP or may elect non-membership.

JSRS

A pension benefit is payable at age 70 with 15 years' service, age 65 with 20 years' service, 25 years' service regardless of age for a judge or 24 years of service for a solicitor or a circuit public defender regardless of age. A judge is vested in the system after attaining 10 years of earned service in the position of judge, and a solicitor or a circuit public defender is vested in the system after attaining eight years of earned service. A member who has reached maximum eligibility is eligible to retire and draw an annuity while continuing to serve. An incidental death benefit is also provided to members. Retirees receive increases in benefits based upon increases in the current salary of their respective active positions.

SCNG

A monthly pension is payable at age 60 provided the member was honorably discharged from active duty with at least 20 years of total creditable military service. Of the 20 years total creditable military service, at least 15 must have been served in the South Carolina National Guard. Additionally, the final 10 years of military service must have been served in the South Carolina National Guard. No cost-of-living increases are provided to SCNG retirees.

Summary of Significant Accounting Policies

Fund Structure

The Systems' accounts are maintained in accordance with the principles of fund accounting. This is the procedure whereby resources for various purposes are classified for accounting and reporting purposes into funds that are in accordance with specified activities or objectives. Separate pension trust funds (fiduciary fund type) are used to account for the activities of the five public employee retirement systems administered by PEBA.

Comparative Totals

The basic financial statements include certain prior-year summarized comparative information in total but not at the level of detail required for a presentation in accordance with generally accepted

accounting principles. Accordingly, such information should be read in conjunction with the Systems' financial statements for the year ended June 30, 2019, from which the summarized information was derived.

Basis of Accounting

All funds are accounted for using the economic resources measurement focus and the accrual basis of accounting. Revenues are recognized when earned and expenses are recognized when incurred. Benefit and refund expenses are recognized when due and payable in accordance with the terms of the plan.

Administrative Expenses

Administrative expenses are the responsibility of PEBA and all accounting and corresponding disclosures relating to administrative expenses of the pension trust funds are included in the financial statements of the Systems.

Administrative expenses for the Retirement Division of PEBA are funded by the trust funds and are allocated to each of the systems based on its respective portion of total assets in order to pay for actual expenses incurred during the year.

Administrative expenses of the Systems include the Retirement Division's portion of PEBA employee salaries and associated employee benefits, costs for contractual services and operating expenses.

Cash and Cash Equivalents

The Systems classify cash on deposit in financial institutions and cash on deposit in the state's internal cash management pool as cash and cash equivalents. The Systems also classify certain short-term highly liquid securities as cash equivalents if the date of maturity is three months or less from the date of acquisition. Forward contracts, foreign currencies and cash held in the strategic partnership accounts are also classified as cash and cash equivalents.

Contributions

Employee, employer, nonemployer and state appropriated contributions are recognized in the period in which they are due, pursuant to formal

commitments as well as statutory requirements. Substantially all contributions receivable are collected within 30 days of year-end.

Investments

The Retirement System Investment Commission (Commission as the governing body, RSIC as the agency), created by the General Assembly in 2005, has exclusive authority for investing and managing all assets held in trust for the South Carolina Retirement Systems. The Commission serves as co-trustee and co-fiduciary for the assets of the Retirement Systems. Funds of the Systems are invested subject to the terms, conditions, limitations, and restrictions imposed by Section 16, Article X of the South Carolina Constitution and Section 9-1-1310 (B) and Title 9 Chapter 16 of the South Carolina Code of Laws. The funds and assets of the various state retirement systems are not funds of the State, but are instead held in trust as provided in Section 9-16-20.

The RSIC is structured as a separate state agency reporting to a body of appointed and ex officio Commissioners. The Commission is an eight member board as provided in Section 9-16-315 of the South Carolina Code of Laws. The Commission employs a Chief Executive Officer (CEO) who serves as the agency head of the RSIC, reporting directly to the Commission, with functions and duties assigned by the Commission. The CEO is the central source of authority and accountability for administrative decisions. In addition, the Commission employs a Chief Investment Officer (CIO) who reports to the CEO for day to day oversight and strategic planning objectives and who serves as the central source of authority and accountability for all investment decisions delegated to him or her by the Commission and state law. The Commission also engages external investment consultants, who are accountable to the Commission, to work collaboratively with RSIC staff to fulfill the duties of investing the Systems' portfolio.

As with PEBA, administrative costs of the RSIC are paid from the Systems, and its budget is funded entirely from the trust fund. Costs include Commissioner, investment and administrative staff

compensation, as well as other contractual services and other operating expenses. The allocation of those administrative costs is based upon a proration of such costs in proportion to the assets that each system bears to the total assets of all of the systems for the most recently completed fiscal year.

As mandated by Section 9-16-340 of the South Carolina Code of Laws, the Commission is given the authority for establishing and amending investment policies including asset allocation policies. The Commission has adopted a Statement of Investment Objectives and Policies (SIOP) which establishes investment and performance objectives, policies and guidelines, roles, responsibilities and delegation of authority for the investment and management of assets of the Systems. As mandated by Section 9-16-340 (B), the SIOP is reviewed by the Commission at least annually to determine its continued applicability at which time changes may be made to investment policy including asset allocation. The SIOP provides the framework pursuant to which the CIO and staff develop the Annual Investment Plan (AIP), which provides a formal plan for investing the Systems' assets to achieve the Commission's investment objectives and mission. As required by Section 9-16-320, the AIP must be submitted to the Commission no later than April 1 of each year, and the Commission must meet no later than May 1 of each year to adopt the proposed AIP for the following fiscal year. The Commission may amend the SIOP and AIP during the fiscal year as it deems appropriate in order to change investment policy including asset allocation. There have been no significant investment policy changes during the reporting period.

The Commission manages Systems' assets with a long-term horizon and seeks to earn an appropriate risk-adjusted return in consideration of the specific goals, needs and circumstances of the Systems and in the exclusive interest of members of the Systems. Among the decisions the Commission can make, asset allocation has the most significant impact on the portfolio's return, risk profile and cost and is reviewed annually as part of the development of the AIP.

The asset allocation process is paramount to the development of the AIP. Based on the Capital Market Expectations provided by the Commission's Investment Consultant, the Commission comes to a consensus and establishes the Policy Portfolio expected to achieve a 20-year annualized rate of return that meets its investment objective with an expected volatility acceptable to the Commission. The Commission recognizes that the CIO and investment staff may add value by structuring the Actual Portfolio in a manner that deviates from the Policy Portfolio target weights or may also pursue a strategy that causes the composition of an asset class to differ from the policy benchmark. As a result, the Commission provides the CIO and the investment staff with the discretion to structure the portfolio within the asset class and sub-asset class ranges. The asset allocation is reviewed on an ongoing (typically weekly) basis by Staff and the CIO to ensure that the Portfolio is within its allocation ranges. When an asset class reaches its minimum or maximum allocation, Staff will initiate rebalancing transactions to keep allocations within the approved ranges. Otherwise, Staff must seek Commission approval to remain outside the range.

Based on the Commission's determination of the appropriate risk tolerance for the Portfolio and its long-term return expectations, it has authorized the following Policy Asset Allocation, including target allocations and ranges for each asset class that were adopted by the Commission for the fiscal year beginning July 1, 2019.

Asset Class	Policy Allocation	Minimum	Maximum
Global Equity	51.0%	31.0%	59.0%
Global Public Equity ¹	35.0%	22.0%	50.0%
Private Equity ^{1,2}	9.0%	5.0%	13.0%
Equity Options Strategies	7.0%	5.0%	9.0%
Real Assets	12.0%	7.0%	17.0%
Real Estate	9.0%	5.0%	13.0%
Real Estate-REITs ¹	1.0%	0.0%	13.0%
Real Estate-Private ^{1,2}	8.0%	0.0%	13.0%
Infrastructure	3.0%	1.0%	5.0%
Infrastructure - Public ¹	1.0%	0.0%	5.0%
Infrastructure - Private ^{1,2}	2.0%	0.0%	5.0%
Credit	15.0%	10.0%	20.0%
High Yield/Bank Loans ³	4.0%	0.0%	8.0%
Private Debt ^{1,2}	7.0%	3.0%	11.0%
Emerging Markets Debt	4.0%	2.0%	6.0%
Rate Sensitive	14.0%	4.0%	24.0%
Core Fixed Income ¹	13.0%	6.0%	20.0%
Cash and Short Duration (Net)	1.0%	0.0%	7.0%
Opportunistic	18.0%		
GTAA	7.0%	3.0%	11.0%
Other Opportunistic Strategies	1.0%	0.0%	3.0%
Portable Alpha Hedge Funds ^{3,4}	10.0%	0.0%	12.0%

¹ The target weights to Private Equity, Private Debt, Private Real Estate and Private Infrastructure will be equal to their actual weights as of prior month end. Private Equity and Public Equity will combine for 44% of the entire portfolio. Private Debt and High Yield/Bank Loans will combine for 11% of the entire portfolio. Private Real Estate and Real Estate (REITs) will combine for 9% of the entire portfolio. Private Infrastructure and Public Infrastructure will combine for 3% of the entire portfolio.

² RSIC staff and Consultant will notify the Commission if Private Markets assets exceed 25% of total assets.

³ RSIC staff and Consultant will notify the Commission if Hedge Fund assets exceed 20% of total assets.

⁴ Portable Alpha Hedge Funds are expressed as gross exposure but, as collateral supporting the Overlay program, net to zero when calculating total Plan market value. For benchmarking purposes, there is a 10% weight assigned to it in the Policy benchmark.

At June 30, 2020, the Systems held no investments (other than those issued or explicitly guaranteed by the U.S. government) in any one organization that represent five percent or more of the plans' fiduciary net position.

For the year ended June 30, 2020, the annual money weighted rate of return on plan investments was (1.57%) percent net of fees. The money

weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested.

As a fiduciary acting on behalf of the Systems, the Commission enters into individual agreements with various investment managers to invest plan assets. As of June 30, 2020, 150 legal agreements were in place with 85 investment managers.

The PEBA Board serves as custodian and co-trustee of the assets of the retirement trust funds. The Commission is also co-trustee of the assets of the retirement trust funds and has exclusive authority to select the custodial bank with PEBA as a third-party beneficiary of the contract, with full rights to information.

BNYM serves as custodial bank of the funds of the Retirement Systems. Assets also include investments not custodied at BNYM, such as funds held in partnerships, commingled accounts, or private market asset classes. The custodial bank provides consolidated recordkeeping services which reflect these securities not held in the custodian's vault or for which the custodian or its nominee is not the registered owner (non-custody securities).

For financial statement purposes, investments of the pension trust funds are reported at fair value in the Statement of Fiduciary Net Position. Short term securities categorized as cash or cash equivalents are reported at fair value. The Systems hold domestic and global equity securities which are traded on organized exchanges. Equity securities held by the custodian are valued by the custodian using the last reported price on a trade-date basis. The Systems hold domestic and global fixed income securities. The custodian values those fixed income assets which are held in custody based upon prices received from external pricing sources and in accordance with the custodian's pricing policy. Commingled funds, which may contain equity and/or fixed income securities are priced based upon the manager's pricing policy and a Net Asset Value (NAV) is provided to the custodian. Private market investments typically utilize a limited partnership structure and private equity funds normally invest in companies that are not publicly

traded on a stock exchange. The fair values of alternative investments including private equity, private debt, hedge funds, private real estate and private infrastructure, for which daily market values are not readily ascertainable, are valued in good faith based on the most recent financial information available for the underlying companies and reported by the investment managers at the measurement date, adjusted for subsequent cash flow activities through June 30, 2020. Valuation of investments is a joint responsibility of PEBA and RSIC. Staff from both offices serve on a joint valuation committee which oversees and reviews the valuations provided by the custodian and/or the external investment managers. The estimated fair value of these investments is intended to approximate, but at times may differ, from values that would have been used had a liquid public market existed.

Investments are combined in a commingled investment pool, with each system owning a percentage of the pool and receiving proportionate investment income in accordance with their respective ownership percentage. Investment income includes realized and unrealized appreciation (depreciation) in the fair value of investments, interest income earned, dividend income earned, less investment expense, plus income from securities lending activities, less deductions for securities lending expenses.

While some investment managers submit invoices for their investment management fees, a significant number of investment managers provide account valuations on a net of fee basis. For greater transparency, the RSIC makes a good faith attempt to account for netted fee amounts that are not necessarily readily separable. Through a process that consists of the collection, aggregation, and reasonableness testing, RSIC is able to provide the Retirement Division of PEBA with a collection of investment fees and expenses that would not otherwise be disclosed. The RSIC provides the netted fee information to PEBA on an annual basis so that amounts can be reclassified and reported in the financial statements on the Investment expense line of the Statement of Changes in Fiduciary Net

Position. The non-invoiced investment expenses include amounts for investment management fees, performance fees (including carried interest allocations), and other investment expenses such as organizational expenses in limited partnership structures. The total netted fee amounts reported also reflect the impact of any offsets which have the effect of reducing this total. There is no industry standard for reporting pension plan investment fees and expenses, therefore, in order to compare investment expense as reported by the Systems with investment management costs reported by other public pension plans, an understanding of the actual fees and expenses included in any comparative reports is necessary. Additionally, investment plan composition directly influences the fee structure of a plan and adjustments for differences in plan asset allocation are necessary before conclusions can be reached from such comparisons.

Capital Assets

Capital Assets are valued at historical cost or at estimated historical cost if actual historical cost data is not available. The costs of normal maintenance and repairs that do not significantly add to the value of an asset or materially extend the asset's useful life are not capitalized. An individual asset is capitalized and reported if it has an estimated useful life of at least two years and a historical cost as follows: more than \$5 thousand for machinery and equipment; more than \$100 thousand for buildings. All land and non-depreciable land improvements are capitalized and reported, regardless of cost. Depreciation is recorded using the straight-line method over the useful life of 40 years for the building and a useful life of 2 to 25 years for equipment. Land is not depreciated.

II. Contributions and Reserves

Contributions to each of the Plans are prescribed in Title 9 of the South Carolina Code of Laws. The board may increase the percentage rate in SCRS and PORS employer contributions on the basis of the actuarial valuations. If the scheduled employee and employer contributions provided in statute or the rates last adopted by the board are insufficient to maintain a 27-year amortization schedule of the unfunded liabilities of the plans, the board shall increase the contribution rates for the employer as necessary to maintain the amortization period.

If the most recent annual actuarial valuation of the Systems for funding purposes shows a ratio of the actuarial value of system assets to the actuarial accrued liability of the system (the funded ratio) that is equal to or greater than 85 percent, then the board, effective on the following July first, may decrease the then current contribution rates upon making a finding that the decrease will not result in a funded ratio of less than 85 percent. If contribution rates are decreased pursuant to this provision, and the most recent annual actuarial valuation of the system shows a funded ratio of less

than 85 percent, then effective on the following July first, and annually thereafter as necessary, the board shall increase the then current contribution rates until a subsequent annual actuarial valuation of the system shows a funded ratio that is equal to or greater than 85 percent.

The Retirement System Funding and Administration Act established a ceiling on employee contribution rates at 9 percent and 9.75 percent for SCRS and PORS respectively. The employer contribution rates were scheduled to increase annually by 1 percent in accordance with state statute. The legislation's ultimate scheduled employer rate is 18.56 percent for SCRS and 21.24 percent for PORS. On May 18, 2020, Governor Henry McMaster signed H.3411, a continuing resolution, into law which includes a provision that suspends the statutory employer contribution rate increase for SCRS and PORS for Fiscal Year 2021; therefore, the employer contribution rates will remain 15.56 percent and 18.24 percent for SCRS and PORS, respectively. The employee rates will not change. The amortization period is scheduled to be reduced one year for each

of the next 8 years to a 20-year amortization schedule.

Following are the employee and employer contribution rates applicable for fiscal year 2020 (amounts expressed in thousands):

System	Employee Rate	Employer Rate
SCRS	9%	15.56% ¹
PORS	9.75%	18.24% ²
GARS	11%	\$6,329 ³
JSRS	10%	62.94% ³
SCNG	Non-contributory	\$5,290 ⁴

¹ Includes incidental death benefit contribution rate of 0.15%

² Includes incidental death benefit and accidental death benefit contribution rate of 0.20% each

³ Includes incidental death benefit contributions as determined by the Systems' actuary

⁴ The contributions for SCNG determined by the Systems' actuary were \$5,262 however, the contributions provided by state appropriations were \$5,290

In an effort to help offset a portion of the increased contribution requirements for employers, the General Assembly again provided nonemployer contributions to PEBA. Based on the criteria provided in the South Carolina 2019-2020 Appropriations Act, Part IB, Section 117.131, PEBA issued credit invoices to certain SCRS and PORS employers for fiscal year 2020 who then applied the credit invoices towards contributions otherwise due to the Systems. The amount of credit invoices issued in fiscal year 2020 totaled \$88.7 million and \$12.5 million for SCRS and PORS respectively. The South Carolina 2019-2020 Appropriations Act, Part IA, Section 108 also provided \$2.9 million in nonemployer contributions to JSRS.

Employer contributions for GARS and SCNG are determined by the Systems' actuary on an annual basis. SCNG employer contributions are provided annually by state appropriations.

In accordance with South Carolina State Statute, for fiscal year 2020 an additional employer contribution surcharge of 6.25 percent of covered payroll was added to the contribution rate applicable to state and local governments, and public school entities covered by the state's retiree health and dental insurance benefits. This assessment is for the

purpose of providing retiree health and dental insurance benefits and is not a part of the actuarially established contribution rates for retirement funding purposes. Functioning as a collecting agent, SCRS and PORS collected and remitted these funds to the South Carolina Retiree Health Insurance Trust Fund. (amounts expressed in thousands):

	Retiree Insurance Surcharge
SCRS	\$441,967
State ORP	108,591
PORS	28,281
Total	\$578,839

The Fiduciary Net Position of each plan is required to be reserved in the following accounts:

The **Employer Fund** is credited with all employer and nonemployer retirement contributions and investment earnings of the Employee and Employer Funds. Upon retirement, all member account balances and contributions are transferred to the Employer Fund as all annuities and administrative expenses of the Systems are paid from this fund. Annual state appropriations to the SCNG are also credited to the Employer Fund to provide funding for the payment of annuities and administrative expenses.

The **Employee Fund** is credited with all contributions made by active members of the Systems. Interest is credited to each active member's individual account at an annual rate of 4 percent by transferring funds from the Employer Fund to the Employee Fund. At termination of employment prior to retirement, employee contributions and accumulated interest may be refunded from this fund to the member. At retirement, employee contributions and interest are transferred from the Employee Fund to the Employer Fund for subsequent payment of benefits.

The **Death Benefit Fund**, an incidental death program within SCRS and PORS, is the fund to which participating employers contribute for the purpose

of providing a death benefit to active and retired members of the Systems. Employer contributions and investment earnings are credited to this fund. Death benefit payments and administrative expenses are paid from this fund. The assets in the Death Benefits Fund are not held separately in a dedicated trust for the sole purpose of paying death benefits to beneficiaries of deceased members. These benefits are considered allowable within the defined benefit plans and are held within the pension trust funds.

The **Accidental Death Fund** (PORS only) is the fund to which participating employers contribute for the purpose of providing annuity benefits to beneficiaries of members of PORS killed in the actual performance of their duties. This fund and its

benefits are independent of any other retirement benefit available to the beneficiary. Employer contributions and investment earnings are credited to this fund. Monthly survivor annuities and administrative expenses are paid from this fund.

The **Qualified Excess Benefit Arrangement (QEBA) Fund** is the fund from which annuity benefits are paid when a benefit recipient exceeds IRC Section 415(b) limits on the amount an individual may receive annually from a qualified defined benefit pension plan. Employer contributions are credited to this fund on an as-needed basis in an amount equivalent to the amount of funds necessary to pay benefits out of the QEBA fund due to IRC Section 415(b) limitations. Accordingly, the QEBA fund currently has no reserve balance.

Balances in the respective reserves at June 30, 2020, were as follows (amounts expressed in thousands):

	<u>SCRS</u>	<u>PORS</u>	<u>GARS</u>	<u>JSRS</u>	<u>SCNG</u>	<u>Total</u>
Employee Fund	\$ 9,714,420	\$ 1,265,088	\$ 7,046	\$ 33,153	\$ -	\$ 11,019,707
Employer Fund	16,456,998	3,348,223	27,408	132,097	31,092	19,995,818
Death Benefit Fund	121,000	49,602				170,602
Accidental Death Fund		67,262				67,262
QEBA Fund						-
Totals	<u>\$ 26,292,418</u>	<u>\$ 4,730,175</u>	<u>\$ 34,454</u>	<u>\$ 165,250</u>	<u>\$ 31,092</u>	<u>\$ 31,253,389</u>

III. Deposits and Investments

Deposit and Investment Risk Disclosures

The tables presented on pages 63-66 include disclosures of credit and interest rate risk in accordance with Governmental Accounting Standards Board Statement 40 and are designed to inform financial statement users about investment risks which could affect the Systems' ability to meet its obligations. These tables classify investments by risk type, while the financial statements disclose investments by asset class. The table amounts were provided by the custodian bank and agree to the Statement of Fiduciary Net Position.

Custodial Credit Risk

Deposits

The Systems' deposits at June 30, 2020, were as follows (amounts expressed in thousands):

	<u>Carrying Amount</u>
SCRS	\$50,016
PORS	5,646
GARS	115
JSRS	263
SCNG	107
Total	<u><u>\$56,147</u></u>

Custodial credit risk for deposits is the risk that in the event of a bank failure, the Systems' deposits may not be recovered. Deposits are insured by the Federal Deposit Insurance Corporation (FDIC) up to \$250,000; however, amounts in excess of \$250,000 are uninsured and uncollateralized. The Commission has a formal Counterparty Policy which covers policies and procedures related to oversight and management of Counterparty Risk, including the custodial bank. To monitor custodial credit risk, the

credit quality of financial institutions at which deposits are held are periodically reviewed using internal analysis and rating agencies' reports.

As of June 30, 2020, actual bank balances totaled \$33.9 million. Amounts in excess of \$250,000 were uninsured and uncollateralized.

As of June 30, 2020, cash held by the custodian, in broker and strategic partnerships accounts as well as forward contracts and foreign currencies totaled \$446.4 million. These balances are classified as cash and cash equivalents on the Statement of Fiduciary Net Position.

Investments

Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the Systems will not be able to recover the value of the investments or collateral securities that are in the possession of an outside party. Investing for the Systems is governed by Section 16, Article X of the South Carolina Constitution and Section 9-1-1310(B) and Title 9 Section 16 of the South Carolina Code of Laws. Funds held in trust for the Retirement Systems may be invested and reinvested in a variety of instruments as outlined by Section 9-1-1310(B) of the South Carolina Code of Laws.

The following table presents the fair value of investments:

Statement of Invested Assets

June 30, 2020

(Amounts expressed in thousands)

Investment Type	Fair Value	Investment Type	Fair Value
Short Term Investments		Fixed Income Allocation	
Short Term Investment Funds (U.S. Regulated)	\$ 2,915,829	U.S. Government	
Repurchase Agreements	32,688	U.S. Government Treasuries ¹	\$ 92,914
Commercial Paper	116,649	U.S. Government Agencies	267,169
U. S. Government Agency	30,020	Mortgage Backed	
U. S. Treasury Bills	229,850	Government National Mortgage Association	45,889
Municipals	1,190	Federal National Mortgage Association	14,420
Corporate Bonds	2,750	Federal Home Loan Mortgage Association (Multiclass)	3,608
Total Short Term Investments	<u>\$ 3,328,976</u>	Collateralized Mortgage Obligations	1,509
		Municipals	10,593
Equity Allocation		Corporate	
Global Public Equity²		Corporate Bonds	1,333,738
Common Stocks	\$ 12,889,255	Convertible Corporate Bonds	326
Real Estate Investment Trusts	660,750	High Yield/Bank Loans	16,685
Preferred	3,236	Asset Backed Securities	248,261
Options - Equity	36,268	Private Placements	859,936
Swaps - Equity	284,260	Emerging Debt	915,584
Total Global Public Equity	<u>\$ 13,873,769</u>	Options - Fixed Income	(15)
		Futures - Fixed Income	437
Opportunistic		Swaps - Fixed Income	(282)
Global Tactical Asset Allocation	\$ 3,845	Total Fixed Income	<u>\$ 3,810,772</u>
Other Opportunistic	224,194		
Total Opportunistic	<u>\$ 228,039</u>		
Alternatives			
Hedge Funds	\$ 3,300,578		
Private Equity Limited Partnerships	2,261,270		
Private Debt	2,201,697		
Private Real Estate	2,529,751		
Private Infrastructure	345,748		
Total Alternative Investments	<u>\$ 10,639,044</u>		
Total Invested Assets		Total Invested Assets	<u><u>\$ 31,880,600</u></u>
Invested Securities Lending Collateral	\$ 20,452		

Reconciliation of Statement of Invested Assets (listed above) to the Statement of Fiduciary Net Position

Total Invested Assets	\$ 31,880,600
Short Term Investments classified as Cash & Cash Equivalents on Statement of Fiduciary Net Position	
Short Term Investment Funds (U.S. Regulated)	(2,915,829)
Repurchase Agreements	(32,688)
Commercial Paper	(25,949)
U. S. Government Agency	(30,020)
U. S. Treasury Bills	(700)
Total Investments on Statement of Fiduciary Net Position	<u><u>\$ 28,875,414</u></u>

¹ U.S. Government Treasuries includes Notes, Bonds, and Treasury Inflation Protected Securities (TIPS).

² RSIC's Public Equity benchmark as of 6/30/2020 is the weighted average of regional sub-asset class targets in the Policy Portfolio. The Benchmark is comprised of 56.9% MSCI U. S. IMI Index for U.S. Equity, 31.1% MSCI World ex-U.S. IMI Index for Developed Market Equity (non-U.S.), and 12.0% MSCI Emerging Markets IMI Index for Emerging Market Equity. As of June 30, 2020, RSIC had a NAV of \$6,716,106,699 in Global Equity managers that invest to the MSCI World. The MSCI World is comprised of 65.5% MSCI U.S. and 34.5% MSCI EAFE + CAD.

Fair Value Measurements

The Systems categorize fair value measurements within the fair value hierarchy established by GASB Statement No. 72, *Fair Value Measurement and Application*. The valuation technique uses a three level hierarchy of inputs to measure the fair value of the asset and gives the highest priority to unadjusted quoted prices in active markets (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). These classifications are summarized as follows:

Level 1 Inputs: Quoted prices (unadjusted) for identical assets or liabilities in active markets that a reporting entity can access at the measurement date.

Level 2 Inputs: Quoted prices for similar instruments 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 Inputs: Unobservable inputs for an asset or liability.

In the event that inputs used to measure the fair value of an asset or liability fall into different levels in the fair value hierarchy, the overall level of the fair value hierarchy in its entirety is determined based on the lowest level input that is significant to the entire valuation. These levels are not necessarily an indication of risk but are based upon the pricing transparency of the investment. In determining the appropriate levels, the Systems performed a detailed analysis of the assets and liabilities that are subject to GASB Statement No. 72.

Fair value of certain investments that do not have a readily determinable fair value is established using net asset value (or its equivalent) as a practical expedient. These investments are not categorized according to the fair value hierarchy.

Investments classified according to the fair value hierarchy are valued according to the pricing policy established by the Plan's custodian bank. Pricing is based primarily on prices from several third-party vendors or other specified alternative sources which are considered to be reliable. Where available, the custodian bank uses more than one vendor for securities of each asset type, class or issue. The price received from a primary source is used in valuation unless a tolerance check, or price challenge, results in the use of a price from a secondary vendor. The Systems may override prices provided by the custodian bank if it is deemed necessary or appropriate.

The Systems have the following recurring fair value measurements as of June 30, 2020 (amounts in thousands):

Investments by Fair Value Level	At 6/30/2020	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Short Term Investments				
Short Term Investment Funds (U. S. Regulated)	\$ 2,915,829	\$ 2,915,829	\$ -	\$ -
Repurchase Agreements	32,688		32,688	
Commercial Paper	116,649		116,649	
U. S. Government Agency	30,020		30,020	
U. S. Treasury Bills	229,850	229,850		
Municipals - 1 year or less	1,190		1,190	
Corporate Bonds	2,750		2,750	
Total Short Term Investments	\$ 3,328,976	\$ 3,145,679	\$ 183,297	\$ -
Equity Allocation				
Global Public Equity				
Common Stocks	\$ 1,268,663	\$ 1,268,663	\$ -	\$ -
Real Estate Investment Trusts	660,750	660,750		
Preferred	3,236		3,236	
Total Global Public Equity	\$ 1,932,649	\$ 1,929,413	\$ 3,236	\$ -
Fixed Income Allocation				
U. S. Government				
U.S. Government Treasuries	\$ 92,914	\$ 92,914	\$ -	\$ -
U.S. Government Agencies	267,169		267,169	
Mortgage Backed				
Government National Mortgage Association	45,889		45,889	
Federal National Mortgage Association	14,420		14,420	
Federal Home Loan Mortgage Association (Multiclass)	3,608		3,608	
Collateralized Mortgage Obligations	1,509		1,509	
Municipals	10,593		10,593	
Corporate				
Corporate Bonds	1,333,738	21,526	1,159,829	152,383
Convertible Corporate Bonds	326		326	
Asset Backed Securities	248,261		248,261	
Private Placements	859,936		859,936	
Total Fixed Income	\$ 2,878,363	\$ 114,440	\$ 2,611,540	\$ 152,383
Total Investments by Fair Value Level	\$ 8,139,988	\$ 5,189,532	\$ 2,798,073	\$ 152,383
Investments measured at the net asset value (NAV)				
Global Equity	\$ 11,620,592			
Global Tactical Asset Allocation	3,845			
Other Opportunistic	224,194			
High Yield/Bank Loans	16,685			
Emerging Debt	915,584			
Hedge Funds	3,300,578			
Private Equity	2,261,270			
Private Debt	2,201,697			
Private Real Estate	2,529,751			
Private Infrastructure	345,748			
Total investments measured at the NAV	\$ 23,419,944			
Total investments measured at fair value	\$ 31,559,932			
Investment derivative instruments				
Equity Investments				
Options - Equity	\$ 36,268	\$ 10,188	\$ 26,080	\$ -
Swaps - Equity	284,260		284,260	
Fixed Income Investments				
Options - Fixed Income	(15)	(6)	(9)	
Futures - Fixed Income	437	437		
Swaps - Fixed Income	(282)	(282)		
Total investment derivative instruments	\$ 320,668	\$ 10,337	\$ 310,331	\$ -
Total Invested Assets	\$ 31,880,600			

The investments that are measured at the Net Asset Value (NAV) are noted below (amounts in thousands).

	Fair Value at 6/30/20	Unfunded Commitments ¹	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Global Equity	\$ 11,620,592	\$ -	Daily/Monthly	5 - 30 days
Global Tactical Asset Allocation	3,845		Monthly	5 - 14 days
Other Opportunistic	224,194	33,559	Monthly	5 - 30 days
High Yield/Bank Loans	16,685		Monthly	5 - 30 days
Emerging Debt	915,584		Daily/Monthly	10 - 15 days
Hedge Funds	3,300,578		Monthly/Quarterly	2 - 90 days
Private Equity	2,261,270	2,903,289	Illiquid	Illiquid
Private Debt	2,201,697	2,016,391	Illiquid	Illiquid
Private Real Estate	2,529,751	1,101,802	Illiquid	Illiquid
Private Infrastructure	345,748	149,067	Illiquid	Illiquid
Total investments measured at the NAV	\$ 23,419,944	\$ 6,204,108		

¹ For purposes of this table, amounts are reported in US Dollars. The Private Equity Category includes £75,000,000, €162,943,134 and AUD \$47,849,906 that have been converted to USD. The Private Infrastructure category includes €26,244,224 that has been converted to USD.

Global Equity Funds. This investment type includes 14 funds that invest primarily in global developed and emerging equity public markets instruments with one of the funds invested in an equity options strategy. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Managers. Redemptions are generally allowed monthly, provided adequate notice.

Global Tactical Asset Allocation Funds. This investment type includes one fund that may be invested in liquid securities and instruments, including but not limited to equities, fixed income securities, bank loans, commodities, futures, swaps, forwards, options, and currencies. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Managers. Redemptions are allowed monthly, provided adequate notice.

Other Opportunistic Funds. This investment type includes three funds all of which are strategic partnership investments. The objective of this asset class is to identify investments that, while they may not fit into other asset classes, still offer compelling opportunities for the Portfolio. These investments may offer either high returns, diversifying returns, or both. Examples of potential investments include, but are not limited to, commodities, CTAs, TIPS, and insurance strategies. This allocation also includes risk parity investments. The fair values of two investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The fair value of one investment in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Manager. Redemptions are generally allowed monthly, provided adequate notice.

High Yield/Bank Loan Funds. This investment type includes one fund that generally invests in high yield, bank loan and structured credit instruments. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Manager. Redemptions are generally allowed monthly, provided adequate notice.

Emerging Debt Funds. This investment type includes three funds that generally invest in debt securities issued in any currency and may hold foreign currency. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported

by the Investment Managers. Redemptions are generally allowed monthly, provided adequate notice, and one fund charges a redemption fee.

Hedge Funds. This investment type includes 19 funds that generally invest in hedge fund strategies that seek alpha in equity or credit markets or seek to minimize embedded market beta. There are 14 of these funds invested through strategic partnership investments which may consist of underlying investments in more than one hedge fund. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Managers. Redemptions are generally allowed monthly, provided adequate notice; however, it is common that funds have authority to require longer redemption timeframes and/or make the redemption subject to gates to mitigate any detrimental impact to the fund.

Private Equity Funds. This investment type includes 55 funds that consist of investments in limited partnerships or co-investments and five funds within strategic partnership investments. Strategic partnerships may consist of underlying investments in more than one limited partnership or co-investment fund. The private equity investments span the venture capital, growth equity, fund of funds, secondaries, energy and buyout strategies. Private equity is considered an illiquid investment strategy as funds generally have a life span of seven to 10 years. The nature of investments in this asset type is that distributions are received through the liquidation of the underlying assets of the fund. The fair values of the investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

Private Debt Funds. This investment type includes 32 funds that consist of investments in limited partnerships and five funds that are strategic partnership investments. Strategic partnerships may consist of underlying investments in more than one limited partnership or co-investment fund. The private debt investments span the direct lending, distressed, energy, mezzanine, mortgages, opportunistic and other strategies. Private Debt is considered an illiquid investment strategy as funds generally have a life span of seven to 10 years. The nature of investments in this asset type is that distributions are received through investment generated income and the liquidation of the underlying assets of the fund. The fair values of the investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

Private Real Estate Funds. This investment type includes 28 funds that consist of investments in limited partnerships or co-investments and four funds that are strategic partnership investments. Strategic partnerships may consist of underlying investments in more than one limited partnership or co-investment fund. The real estate investments span the core, diversified, real estate debt, timber, value add and opportunistic strategies. Real Estate is considered an illiquid investment strategy as funds generally have a life span of seven to 10 years. The nature of investments in this asset type is that distributions are received through investment generated income and the liquidation of the underlying assets of the fund. The fair values of the investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

Private Infrastructure Funds. This investment type includes four funds that consist of investments in limited partnerships. Common types of infrastructure investments are in transportation, energy, telecommunications, water supply, sewage, or hospitals. These assets tend to benefit from a rising inflation environment. Infrastructure is considered an illiquid investment strategy as funds generally have a life span of 20 years. The nature of investments in this asset type is that distributions are received through investment generated income and the liquidation of the underlying assets of the fund. The fair values of the investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

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Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. While the RSIC has no formal interest rate risk policy, interest rate risk is observed within the portfolio using effective duration (option adjusted duration), which is a measure of the price sensitivity of a bond or a portfolio of bonds to interest rate movements given a 100 basis point change in interest rates. Effective duration takes into account that expected cash flows will fluctuate as interest rates change and provides a measure of risk that changes proportionately with market rates. Investment guidelines may specify the degree of interest rate risk taken versus the benchmark within each fixed income portfolio. Disclosures for interest rate risk at June 30, 2020, are noted below (amounts expressed in thousands).

Investment Type	Fair Value Total	Fair Value Duration Not Available	Fair Value Duration Available	Effective Duration (option adjusted duration)
Short Term Investments				
Short Term Investment Funds (U.S. Regulated)	\$ 2,915,829	\$ -	\$ 2,915,829	0.08
Invested Securities Lending Collateral	20,452	20,452		
Repurchase Agreements	32,688		32,688	
Commercial Paper	116,649	7,000	109,649	0.39
U. S. Government Agency	30,020		30,020	0.01
U. S. Treasury Bills	229,850		229,850	0.28
Municipals - 1 year or less	1,190		1,190	0.75
Corporate Bonds	2,750		2,750	0.08
Total Short Term Investments	\$ 3,349,428	\$ 27,452	\$ 3,321,976	
Equity Allocation				
Preferred	3,236	2,323	913	7.27
Total Equity Investments	\$ 3,236	\$ 2,323	\$ 913	
Fixed Income Allocation				
U. S. Government				
U.S. Government Treasuries	92,914		92,914	13.90
U. S. Government Agencies	267,169	7,174	259,995	1.38
Mortgage Backed				
Government National Mortgage Association	45,889	4,510	41,379	2.84
Federal National Mortgage Association	14,420		14,420	2.42
Federal Home Loan Mortgage Association (FHLMC Multiclass)	3,608		3,608	2.39
Collateralized Mortgage Obligations	1,509		1,509	2.75
Municipals	10,593	718	9,875	3.89
Corporate				
Corporate Bonds	1,333,738	127,121	1,206,617	3.44
Convertible Corporate Bonds	326		326	2.21
High Yield/Bank Loans	16,685		16,685	2.00
Asset Backed Securities	248,261	34,097	214,164	2.04
Private Placements	859,936	66,023	793,913	1.31
Emerging Debt	915,584	620,727	294,857	8.61
Options - Fixed Income	(15)	(9)	(6)	(1,366.77)
Futures - Fixed Income	437		437	7.53
Swaps - Fixed Income	(282)		(282)	29.29
Total Fixed Income	\$ 3,810,772	\$ 860,361	\$ 2,950,411	
Mixed Credit Hedge Fund Allocation				
Mixed Credit Hedge Funds	21,111		21,111	0.02
Total Mixed Credit Hedge Funds	\$ 21,111	\$ -	\$ 21,111	
Total Invested Assets	\$ 7,184,547	\$ 890,136	\$ 6,294,411	
Total Portfolio Effective Duration (option adjusted duration)				1.65

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the holders of its securities. Each individual portfolio within fixed income is managed in accordance with investment guidelines that are specific as to permissible credit quality ranges, exposure levels within individual quality tiers and average credit quality. Within high yield portfolios, a quality rating of lower than C is not permissible in any of the fixed income guidelines except in those circumstances of downgrades subsequent to purchase, in which case the investment manager is responsible for communicating the downgrade to the Commission's consultant and staff. The Systems' fixed income investments at June 30, 2020, were rated by Moody's and are presented below.

Credit Risk

(Amounts expressed in thousands)

Investment Type and Fair Value	AAA	AA	A	BAA	BA	B
Short Term Investments						
Short Term Investment Funds (U. S. Regulated)	\$ 2,915,829	\$ -	\$ -	\$ -	\$ -	\$ -
Repurchase Agreements						
Invested Securities Lending Collateral						
Commercial Paper		69,231		39,543		
Municipals	1,190					
Corporate Bonds						
Equity Investments						
Preferred			2,317			
Fixed Income Allocation²						
Mortgage Backed:						
Federal National Mortgage Association	14,420					
Federal Home Loan Mortgage Association (Multiclass)	3,608					
Collateralized Mortgage Association	1,509					
Municipals		1,897	1,980			
Corporate:						
Corporate Bonds	36,048	63,678	253,742	229,579	195,121	199,866
Convertible Corporate Bonds						308
High Yield/Bank Loans						
Asset Backed Securities	40,345	6,265	17,365	67,369	46,558	12,650
Private Placements	48,164	78,243	95,131	165,834	77,648	70,481
Emerging Debt						
Options - Fixed Income						
Futures - Fixed Income						
Swaps - Fixed Income						
Totals	\$ 3,061,113	\$ 219,314	\$ 370,535	\$ 502,325	\$ 319,327	\$ 283,305

Chart continued on next page

¹The column labeled Not Rated by S&P or Moody's represents securities that were either not rated or had a withdrawn rating.

²U.S. Treasury Bills, Notes and Bonds, Agencies and Government National Mortgage Association securities with a fair value of \$495.9 million are not included because they are not subject to credit risk.

Chart continued from previous page

Credit Risk (cont.)

(Amounts expressed in thousands)

CAA	CA	C	Not Rated			TOTAL
			Int'l and EMD Commingled Funds or held in Strategic Partnerships	Rated by S&P; not by Moody's	Not rated by S&P or Moody's ¹	
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,915,829
					32,688	32,688
					20,452	20,452
				875	7,000	116,649
						1,190
					2,750	2,750
					919	3,236
						14,420
						3,608
						1,509
				6,716		10,593
36,968	16,979	1,026		136,630	164,101	1,333,738
					18	326
					16,685	16,685
2,917	13,942			37,720	3,130	248,261
18,788	2,282			199,040	104,325	859,936
			915,584			915,584
					(15)	(15)
					437	437
					(282)	(282)
\$ 58,673	\$ 33,203	\$ 1,026	\$ 915,584	\$ 380,981	\$ 352,208	\$ 6,497,594

Concentration of Credit Risk – Investments

Concentration of credit risk is the risk of loss attributed to the magnitude of investment in a single issuer. The Systems’ policy for reducing this risk is to comply with the Statement of Investment Objectives and Policies as amended and adopted by the Commission which states that “except that no limitations on issues and issuers shall apply to obligations of the U.S. Government and Federal Agencies, the domestic fixed income portfolio shall contain no more than 6 percent exposure to any single issuer.” As of June 30, 2020, there is no single issuer exposure within the portfolio that comprises five percent or more of the overall portfolio. Therefore, there is no concentration of credit risk.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The Systems participates in foreign markets to diversify assets, reduce risk and enhance returns. Currency forwards are used to manage currency fluctuations and are permitted by investment policy. Policy forbids speculating in forwards and other derivatives.

The table below presents the Systems’ exposure to foreign currency risk in U.S. dollars at June 30, 2020, (amounts expressed in thousands):

Currency	Cash & Cash Equivalents	Forward Contracts	Futures Contracts	Private Equity	Private Infrastructure	Fixed Income	Equity	Total
Australian Dollar	\$ (356)	\$ 37,451	\$ -	\$ 26,705	\$ -	\$ 1,915	\$ 25,917	\$ 91,632
Canadian Dollar	(29)	53,248					55,665	108,884
Danish Krone	26						6,641	6,667
Euro Currency	16,387	(37,720)	9,285	120,719	106,730	222,486	59,599	497,486
Hong Kong Dollar	25	23,154					22,101	45,280
Japanese Yen	2,296	133,620				(347)	11,547	147,116
Mexican Peso	363							363
New Zealand Dollar	36						4,216	4,252
Pound Sterling	1,632	68,813	12			18,667	32,529	121,653
Russian Ruble		8						8
Singapore Dollar	11						1,563	1,574
South African Rand	1							1
Swedish Krona		14,670					193	14,863
Swiss Franc	29						17	46
Totals	<u>\$ 20,421</u>	<u>\$ 293,244</u>	<u>\$ 9,297</u>	<u>\$ 147,424</u>	<u>\$ 106,730</u>	<u>\$ 242,721</u>	<u>\$ 219,988</u>	<u>\$ 1,039,825</u>

Derivatives

Derivatives are financial instruments for which the value is derived from underlying assets or data. All of the Systems’ derivatives are considered investments. Excluding futures, derivatives generally take the form of contracts in which two parties agree to make payments at a later date based on the value of specific assets or indices. Through certain collective trust funds, the Systems may invest in various derivative financial instruments such as futures and options thereon; forward foreign currency contracts, options, interest rate, currency, equity, index, credit default, total return swaps, interest-only strips, and CMOs to enhance the performance and reduce volatility.

To comply with the requirements of multiple exchanges, cash and securities in the amount of \$197.5 and \$242.1 million, respectively, were held in trust by the clearing brokers on June 30, 2020. The Systems’ derivatives, consisting of futures, options, forward contracts and swaps are presented in the tables on pages 67-72. Investments in limited partnerships and commingled funds may include derivatives that are not shown in the derivative totals.

The RSIC works with their overlay provider to utilize derivatives primarily to facilitate changes to the asset allocation of the total plan and take

advantage of their low cost of implementation.

Derivatives are utilized for several reasons:

- **Asset Allocation:** In many cases, synthetic exposures (using derivatives) are placeholders until managers are hired and funded. In time, the Commission may substitute traditional managers for much of the synthetic exposure currently in the portfolio. Efficient Market Theory dictates that in some asset classes, synthetics are the best way to achieve exposure.
- **Risk Management:** Derivatives allow investors the ability to swiftly and efficiently increase or decrease exposures in order to manage portfolio risk.
- **Cost:** A synthetic (derivative) solution is often the least expensive way to gain exposure to an asset class or to manage portfolio risk. Derivatives are more beneficial in each of the three major measures of cost: commission costs, market impact of trading and opportunity costs.

Futures

Futures are contractual obligations that require the buyer (seller) to buy (sell) assets at a predetermined date at a predetermined price. These contracts are standardized and trade on an organized exchange with gains and losses settled daily thereby significantly reducing credit and default risk. Gains and losses are included in the net appreciation/ (depreciation) in the fair value of investments total of the Statement of Changes in Fiduciary Net Position.

The tables below present classification information on the Systems' derivatives at June 30, 2020, (amounts expressed in thousands):

	Changes in Fair Value	
	Classification	Gain
Futures Contracts	Net appreciation	\$ (25,497)
Forward Contracts	Net appreciation	(7,476)
Swaps	Net appreciation	263,536
Options	Net appreciation	(123,231)

	Fair Value			
	Forward Contracts	Futures	Options ¹	Swaps
Cash and Cash Equivalents	\$ (7,968)			
Fixed Income		437	(15)	(282)
Global Public Equity			120,747	284,260
Totals	<u>\$ (7,968)</u>	<u>\$ 437</u>	<u>\$120,732</u>	<u>\$283,978</u>

¹ Includes options held in commingled accounts with fair value of \$84,479 (in thousands).

At June 30, 2020, the Systems had the following exposure via futures contracts (dollar amounts expressed in thousands):

Futures Contracts	Expiration	Long/Short	Quantity	Notional Value¹	Fair Value
EURO-BUND Future (EUX)	September 2020	Long	31	6,146	39
EURO-BUXL 30Y BND Future (EUX)	September 2020	Long	17	4,200	75
LONG GILT Future (ICF)	September 2020	Short	(31)	(5,272)	12
US LONG BOND Future (CBT)	September 2020	Long	2,194	391,766	56
US 10YR NOTE Future (CBT)	September 2020	Long	285	39,664	80
US 10YR NOTE Future (CBT)	September 2020	Long	2,063	287,112	(15)
US 5YR NOTE Future (CBT)	September 2020	Long	705	88,648	198
US 5YR NOTE Future (CBT)	September 2020	Long	2,339	294,111	(8)
US 2YR NOTE Future (CBT)	September 2020	Long	2,391	528,000	
Totals				\$ 1,634,375	\$ 437

¹ Notional value is the nominal or face amount that is used to calculate payments made on derivative instruments (futures, forwards, swaps and options). This amount generally does not change hands and is thus referred to as notional. The notional amount represents the economic equivalent to an investment in the physical securities represented by the derivative contract.

Forwards

Forwards are contractual obligations that require the delivery of assets at a fixed price on a predetermined date. These contracts are “over-the-counter” (OTC) instruments, meaning they are not traded on an organized exchange. Currency forwards gains and losses are included in the net appreciation/(depreciation) in the fair value of

investments total of the Statement of Changes in Fiduciary Net Position.

At June 30, 2020, the Systems had the following forward exposures, listed by counterparty (amounts expressed in thousands):

Broker	Notional Value	Fair Value	Counterparty Exposure
Bank of America	\$ 2,297	\$ 36	0.24%
Bank of New York Mellon	330,046	(2,527)	34.04%
BNP Paribas Securities Corporation	2,092	31	0.22%
Citibank	122,920	(1,164)	12.68%
Citigroup Global Markets	529	10	0.05%
Goldman Sachs Bank USA/New York NY	35,111	(43)	3.62%
Goldman Sachs International	20,775	996	2.14%
HSBC Bank	20,192	1	2.08%
JPMorgan Chase Bank NA	148,378	(1,378)	15.30%
Morgan Stanley & Co International Ltd	18,072	(644)	1.86%
Morgan Stanley Capital Services LLC	2,049	(84)	0.21%
Royal Bank of Canada	111,913	(1,746)	11.54%
Standard Chartered Bank	111,772	(1,605)	11.53%
State Street Boston Capital Markets	43,477	149	4.49%
Totals	\$ 969,623	\$ (7,968)	100%

Swaps

The Systems has entered into various swap agreements to manage plan exposure. Swaps are OTC agreements to exchange a series of cash flows according to specified terms. The underlying asset can be an interest rate, an exchange rate, a commodity price or any other index.

Total return swaps are primarily used to efficiently achieve a target asset allocation. Exposures to an asset class are typically gained by paying a reference rate such as LIBOR, plus or minus a spread, in exchange for the risk and returns of a desired market index. Similarly, exposures can be reduced by receiving a reference rate in exchange for the economic risks and returns of an index.

Counterparty risk, or default risk, is the risk that a party will not honor its contractual obligations. The

Systems seeks to actively manage its counterparty risk by thorough analysis and evaluation of all potential counterparties by investment staff and the independent overlay manager. Risk is further minimized through diversification among counterparties with high credit ratings and collateralizing unrealized gains and losses. The Systems currently does not participate in a master netting agreement. Unrealized gains and losses are not netted across instrument types and are included in the net appreciation/(depreciation) in the fair value of investments total of the Statement of Changes in Fiduciary Net Position. The table below reflects the counterparty credit ratings at June 30, 2020, for currency forwards, swap agreements, and options (amounts expressed in thousands):

Quality rating	Forwards	Swaps	Options ¹	Total
Aa2	\$ (3,868)	\$ 9	\$ 17,884	\$ 14,025
Aa3	(1,133)	208,922	(24,512)	183,277
A1	(1,221)	75,223	42,881	116,883
A2	(1,746)	5		(1,741)
Total subject to credit risk	\$ (7,968)	\$ 284,159	\$ 36,253	\$ 312,444
Centrally cleared:				
Chicago Mercantile Exchange		\$ 511		\$ 511
Intercontinental Exchange		(140)		(140)
LCH Ltd		(552)		(552)
Total not subject to credit risk	\$ -	\$ (181)	\$ -	\$ (181)
Totals	\$ (7,968)	\$ 283,978	\$ 36,253	\$ 312,263

¹ Options held in commingled accounts are not included in this table.

At June 30, 2020, the Systems held swaps as shown in the tables below (amounts expressed in thousands):

Counterparty	Total Return Swaps	SCRS Pays	SCRS Receives	Maturity Date	Current Notional	Fair Value ¹	Gain/Loss Since Trade
Barclays Bank PLC	Barclays Agg Proxy	Variable Rate	Fixed Rate	6/30/2021	\$ 400,000	\$ 1	\$ -
Barclays Bank PLC	Barclays Agg Proxy	Variable Rate	Fixed Rate	5/28/2021	301,891	1,749	1,738
Barclays Bank PLC	Barclays Agg Proxy	Variable Rate	Fixed Rate	10/30/2020	212,014	1,268	9,889
Barclays Bank PLC	Barclays Agg Proxy	Variable Rate	Fixed Rate	7/31/2020	267,997	1,588	16,898
Barclays Bank PLC	Barclays US Agg Proxy	Variable Rate	Fixed Rate	9/30/2020	560,196	3,315	26,645
Barclays Bank PLC	Barclays Agg Proxy	Variable Rate	Fixed Rate	4/30/2021	151,648	1,575	1,472
BNP Paribas SA	MSCI World Swap Proxy	Variable Rate	Fixed Rate	10/30/2020	553,485	41,861	(6,410)
BNP Paribas SA	MSCI World Swap Proxy	Variable Rate	Fixed Rate	9/30/2020	1,040,701	167,061	238,698
Credit Suisse AG	MSCI World Swap Proxy	Variable Rate	Fixed Rate	9/30/2020	392,092	62,933	91,313
Societe Generale	Barclays US Agg Proxy	Variable Rate	Fixed Rate	9/30/2020	106,326	627	5,068
Societe Generale	Barclays Agg Proxy	Variable Rate	Fixed Rate	10/30/2020	106,007	630	4,952
Societe Generale	Barclays Agg Proxy	Variable Rate	Fixed Rate	4/30/2021	151,648	901	1,502
Societe Generale	Barclays Agg Proxy	Variable Rate	Fixed Rate	6/30/2021	250,000	1	
Societe Generale	Barclays Agg Proxy	Variable Rate	Fixed Rate	6/30/2021	100,000	1	
Societe Generale	Barclays Agg Proxy	Variable Rate	Fixed Rate	6/30/2021	200,806	749	745
					<u>\$ 4,794,811</u>	<u>\$ 284,260</u>	<u>\$ 392,510</u>

Counterparty	Fixed Income Swaps	SCRS Pays	SCRS Receives	Maturity Date	Current Notional	Fair Value ¹
Bank of America	Credit Default Swaps	Variable Rate	Fixed Rate	6/20/2021	\$ 2,000	\$ 9
Goldman Sachs	Credit Default Swaps	Variable Rate	Fixed Rate	various	3,300	(116)
HSBC Securities Inc	Credit Default Swaps	Variable Rate	Fixed Rate	6/20/2021	1,200	6
					<u>\$ 6,500</u>	<u>\$ (101)</u>
Chicago Mercantile Exchange	Cleared Interest Rate Swaps	Fixed/Variable	Fixed/Variable	various	\$ 72,100	\$ 511
IntercontinentalExchange	Cleared Credit Default Swaps	Variable Rate	Fixed Rate	various	28,921	(140)
LCH Ltd	Cleared Interest Rate Swaps	Fixed/Variable	Fixed/Variable	various	219,196	(552)
					<u>\$ 320,217</u>	<u>\$ (181)</u>

¹ Fair Value is the amount reasonably expected to be received if the underlying positions were liquidated on the following business day.

Options

Options are exchange traded agreements between two parties for a future transaction on an underlying asset at a reference or strike price. The buyer of an option has the right, but not the obligation, to transact. The seller of an option has the obligation to transact if forced by the buyer. The price of an option is derived by taking the difference in the underlying asset and the strike price plus a premium for the remaining time until expiration. At June 30, 2020, the Systems had the following option positions (dollar amounts expressed in thousands):

Option Contracts	Underlying Security	Expiration	Quantity	Fair Value ¹
Put Aug 20 171.500 07/24/20	EURO-BUND FUTURE SEP 20	September 2020	(39)	\$ (1)
Put Aug 20 172.500 07/24/20	EURO-BUND FUTURE SEP 20	September 2020	(39)	(3)
Put Aug 20 135.500 07/24/20	US 10YR NOTE FUTURE SEP 20	September 2020	(58)	(2)
Put Aug 20 100.641 080620	COMMITMENT TO PURCHASE FNMA	August 2020	(1,800,000)	(2)
Put Aug 20 102.421875 080620	COMMIT TO PUR FNMA SF MTG OTC	August 2020	(8,000,000)	(6)
Put Aug 20 102.078125 080620	COMMIT TO PUR FNMA SF OTC	August 2020	(2,800,000)	(1)
Total Fixed Income				(15)
Call Mar 21 5760.120 033121	ASX S&P/ASX 200 INDEX (OTC)	March 2021	3,884	1,319
Call Sept 20 6688.300 093020	ASX S&P/ASX 200 INDEX (OTC)	September 2020	3,971	85
Call Dec 20 6804.900 123020	ASX S&P/ASX 200 INDEX (OTC)	December 2020	3,789	191
Put Mar 21 5760.120 033121	ASX S&P/ASX 200 INDEX (OTC)	March 2021	(2,513)	(828)
Put Sept 20 6688.300 093020	ASX S&P/ASX 200 INDEX (OTC)	September 2020	(2,213)	(1,311)
Put Dec 20 6804.900 123020	ASX S&P/ASX 200 INDEX (OTC)	December 2020	(2,105)	(1,510)
Call Dec 20 416.170 123020	STOXX EUROPE 600 PRICE IND OTC	December 2020	266,900	763
Put Dec 20 416.170 12/30/20	STOXX EUROPE 600 PRICE IND OTC	December 2020	(135,605)	(9,468)
Put Sept 20 3569.450 093020	EURO STOXX 50 P INDEX (OTC)	September 2020	(20,311)	(8,792)
Call Sept 20 3569.450 093020	EURO STOXX 50 P INDEX (OTC)	September 2020	37,576	1,403
Call Mar 21 19429.210 033121	NIKKEI 225 (OTC)	March 2021	246,753	8,147
Call Sept 20 21755.840 093020	NIKKEI 225 (OTC)	September 2020	256,672	3,359
Call Dec 20 23656.620 123020	NIKKEI 225 (OTC)	December 2020	185,071	1,290
Put Mar 21 19429.210 033121	NIKKEI 225 (OTC)	March 2021	(183,279)	(1,641)
Put Sept 20 21755.840 093020	NIKKEI 225 (OTC)	September 2020	(178,625)	(1,527)
Put Dec 20 23656.620 123020	NIKKEI 225 (OTC)	December 2020	(133,250)	(2,862)
Call Mar 21 5926.630 033121	FTSE 100 INDEX (OTC)	March 2021	4,733	3,426
Call Sept 20 7408.210 093020	FTSE 100 INDEX (OTC)	September 2020	5,214	12
Call Dec 20 7587.050 123020	FTSE 100 INDEX (OTC)	December 2020	4,747	65
Put Mar 21 5926.630 033121	FTSE 100 INDEX (OTC)	March 2021	(3,102)	(1,734)
Put Sept 20 7408.210 093020	FTSE 100 INDEX (OTC)	September 2020	(2,744)	(4,358)
Put Dec 20 7587.050 123020	FTSE 100 INDEX (OTC)	December 2020	(2,511)	(4,648)
Call July 22 000.395 072922	2Y-10 CMS CAP	July 2022	1,339,000	411
Call July 22 000.605 072922	2Y-10 CMS CAP	July 2022	87,000	17
Call July 22 000.395 072922	2Y-10 CMS CAP	July 2022	1,122,000	345
Call July 22 000.395 072922	2Y-10 CMS CAP	July 2022	249,000	77
Call Mar 21 3142.120 033121	S & P 500 INDEX (OTC)	March 2021	(81,653)	(18,477)
Call Mar 21 2755.590 033121	S & P 500 INDEX (OTC)	March 2021	163,306	79,792
Put Mar 21 2747.55 03/31/21	S & P 500 INDEX (OTC)	March 2021	(54,594)	(6,698)
Call Mar 21 2823.11 033121	S & P 500 INDEX (OTC)	March 2021	54,594	23,994
Call Mar 21 3138.620 033121	S & P 500 INDEX (OTC)	March 2021	(81,653)	(18,647)
Put Mar 21 2755.590 033121	S & P 500 INDEX (OTC)	March 2021	(54,435)	(7,617)
Put Mar 21 2617.810 033121	S & P 500 INDEX (OTC)	March 2021	(54,435)	(7,648)
Call July 22 000.605 072922	2Y-10 CMS CAP	July 2022	813,000	162
Call Mar 20 334.390 033121	EURO STOXX 50 FUTURE (OTC)	March 2021	299,650	13,863
Put Mar 20 334.390 03/31/21	EURO STOXX 50 FUTURE (OTC)	March 2021	(197,919)	(4,687)
Total Equity				36,268
Total				<u>\$ 36,253</u>

¹ Options held in commingled accounts are not included in this table.

Alternative Investments

The Alternative Investment category includes the following asset classes: private equity, hedge funds, private debt, private real estate and private infrastructure.

Private equity, private debt, private real estate and private infrastructure investments are typically structured as limited partnerships. In this structure, the Systems is one of several limited partners, while the investment manager serves as the general partner. Investing in such limited partnerships legally obligates the Systems to invest the committed amount until the investment is fully funded or the contractual investment period has expired. Hedge fund investments are typically on subscription basis with a single, initial investment with no further commitment.

The Systems established several strategic partnerships to gain access to deal flow, to receive favorable economics and to efficiently take advantage of market opportunities. Investments within the strategic partnership accounts may include allocations to any asset class including those considered alternative investments. Assets of Strategic Partnerships are reported within their respective asset class totals.

The Commission's intent is to access superior risk-adjusted returns through investing in alternative investment asset classes. Due to their low correlation to traditional asset classes, alternative investments diversify the portfolio and help reduce the risk associated with volatility of returns.

Commitments

The Commission, on behalf of the Systems, has entered into contractual agreements with numerous alternative investment managers and is committed for future funding of private equity, private debt, private real estate and private infrastructure investments. At June 30, 2020, the Systems' commitments, including commitments within Strategic Partnerships, are shown in the following table (amounts expressed in thousands):

	Total Commitment	Amount Funded to Date	Remaining Unfunded Commitment ¹
Limited Partnerships USD			
Private Equity	\$ 6,115,916	\$ 3,521,243	\$ 2,594,673
Private Debt	6,162,802	4,146,411	2,016,391
Private Real Estate	4,192,365	3,090,563	1,101,802
Private Infrastructure	360,000	240,408	119,592
Other Opportunistic	80,237	46,678	33,559
Totals	\$ 16,911,320	\$ 11,045,303	\$ 5,866,017
Limited Partnerships EUR			
Private Equity	€ 308,330	€ 145,387	€ 162,943
Private Infrastructure	125,000	98,756	26,244
Totals	€ 433,330	€ 244,143	€ 189,187
Limited Partnerships AUD			
Private Equity	\$ 100,000	\$ 52,150	\$ 47,850
Totals	\$ 100,000	\$ 52,150	\$ 47,850
Limited Partnerships GBP			
Private Equity	£ 75,000	£ -	£ 75,000
Totals	£ 75,000	£ -	£ 75,000

¹ For purposes of this table, amounts are reported separately by currency.

Securities Lending

The Systems' investment portfolio currently participates in a securities lending program, managed by BNYM ("Securities Lending Program"), whereby securities are loaned for the purpose of generating additional income. BNYM is responsible for making loans of securities on a collateralized basis to various third party broker-dealers and financial institutions and collecting cash and non-cash collateral. The fair value of the required collateral must initially meet or exceed 102 percent of the fair value of the securities loaned for U. S. securities, 105 percent for cross currency securities and 107 percent for equity securities, providing a margin against a decline in the fair value of collateral. If the collateral value falls below 102 percent, the borrower must post additional collateral. In conjunction with generating revenue, the collateral pool seeks to maintain a net asset value (NAV) of \$1, which is determined by dividing the fair value of the assets by the cost of those assets.

There are no restrictions on the amount of securities that may be loaned and conservative investment guidelines continue to be maintained within the Securities Lending Program. The re-investment of the cash collateral is restricted to short duration, very low risk securities and is monitored by RSIC on an ongoing basis. The types of securities available for loan during the year ended June 30, 2020 included U. S. Government securities, U. S. Government agencies, Corporate bonds, Non-U. S. Sovereign debt and Global equities. The contractual agreement between the RSIC and BNYM provides indemnification in the event the borrower fails to return the securities lent or fails to pay the Systems income distribution by the securities' issuers while the securities are on loan.

Indemnification is also provided if the investment of cash collateral results in investment loss. Cash, U. S. Government securities, Corporate securities, Asset-backed securities and Global equities are received as collateral for these loans. Collateral securities cannot be pledged or sold without a borrower default. Cash collateral received is invested, and accordingly, investments made with cash collateral are reported as an asset. A corresponding liability is recorded as the Systems must return the cash collateral to the borrower upon the expiration of the loan.

At June 30, 2020, the fair value of securities on loan was \$63.37 million. The fair value of the invested cash collateral was \$20.45 million, securities lending obligations were \$65.02 million with the difference reported within "Other Liabilities" on the Statement of Fiduciary Net Position. The gross securities lending revenue for the fiscal year was \$2.7 million, a decrease from \$3.0 million in the prior year.

With regard to counterparty credit risk, the Systems' cash collateral invested is held by the counterparty and is uninsured. All securities loaned can be terminated on demand by either the Systems or the borrower. At year end the average number of days the loans were outstanding was one day. The average weighted maturity of investments made with cash collateral was one day. At June 30, 2020, there had been no losses resulting from borrower defaults and the Systems had no credit risk exposure to borrowers because the amounts the Systems owed the borrowers exceeded the amounts the borrowers owed the Systems.

The following table presents the fair value (amounts expressed in thousands) of the underlying securities and the total collateral received for securities on loan at June 30, 2020:

	SCRS	PORS	GARS	JSRS	SCNG	06/30/20 TOTALS	06/30/19 TOTALS
Securities lent for cash collateral							
U. S. Government	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 994
Corporate bonds	18,115	3,256	22	110	18	21,521	7,210
Global Public Equity	35,226	6,331	42	213	36	41,848	75,043
Total	\$ 53,341	\$ 9,587	\$ 64	\$ 323	\$ 54	\$ 63,369	\$ 83,247
Securities lent for non-cash collateral							
U. S. Government securities	\$ 54,489	\$ 9,793	\$ 66	\$ 330	\$ 55	\$ 64,733	\$ 275,689
Corporate Bonds	339	61		2		402	2,093
Global Public Equity	348,802	62,689	419	2,113	355	414,378	755,068
Total	\$ 403,630	\$ 72,543	\$ 485	\$ 2,445	\$ 410	\$ 479,513	\$ 1,032,850
Cash collateral invested as follows							
Repurchase agreements	\$ 17,216	\$ 3,094	\$ 21	\$ 104	\$ 17	\$ 20,452	\$ 41,327
Total	\$ 17,216	\$ 3,094	\$ 21	\$ 104	\$ 17	\$ 20,452	\$ 41,327
Securities received as collateral							
U.S. Government securities	\$ 103,201	\$ 18,547	\$ 124	\$ 625	\$ 105	\$ 122,602	\$ 292,378
Global Public Equity	322,057	57,882	387	1,951	328	382,605	789,540
Global Fixed Income	10,386	1,867	13	63	10	12,339	32,516
Total	\$ 435,644	\$ 78,296	\$ 524	\$ 2,639	\$ 443	\$ 517,546	\$ 1,114,434

IV. Transfers between Systems

Transfers between systems are statutorily authorized internal transfers of contributions and service credit from one retirement system to another retirement system that result from members voluntarily initiating the transfer when certain conditions are met.

Transfers made within the systems administered by PEBA during the fiscal year ended June 30, 2020, were as follows (amounts expressed in thousands):

Transfers from:	Transfers to:					
	SCRS	PORS	GARS	JSRS	SCNG	Total
SCRS	\$ -	\$ 998	\$ -	\$ 549	\$ -	\$ 1,547
PORS				14		14
GARS						-
JSRS						-
SCNG						-
Total	\$ -	\$ 998	\$ -	\$ 563	\$ -	\$ 1,561

The following schedule reflects amounts due to or due from other systems as of June 30, 2020, (amounts expressed in thousands):

Due from:	Due to:					
	SCRS	PORS	GARS	JSRS	SCNG	Total
SCRS	\$ -	\$ 96	\$ -	\$ -	\$ -	\$ 96
PORS						-
GARS						-
JSRS	48					48
SCNG						-
Total	\$ 48	\$ 96	\$ -	\$ -	\$ -	\$ 144

V. Related Party Transactions

The pension plans provide pension and other benefits to employees of all state agencies. Revenues received from these agencies are recorded in the financial statements as employee and employer contributions and constitute approximately 33 percent of combined contribution revenues.

At June 30, 2020, liabilities of approximately \$80.3 million were due to the Employee Insurance Program. Employee and employer contributions receivable of approximately \$81.5 million were due from state agencies, institutions of higher education and quasi-state agencies.

The SCNG Supplemental Retirement Plan received state appropriated contributions in the amount of \$5.3 million during the fiscal year.

The General Assembly appropriated \$101 million for SCRS and PORS collectively to help offset the increased contribution requirements for employers. Based on the criteria provided in the South Carolina

2019-2020 Appropriations Act, Part IB, Section 117.131, PEBA issued credit invoices to certain SCRS and PORS employers for fiscal year 2020 who then applied the credit invoices towards contributions otherwise due to the Systems. The amount of credit invoices issued in fiscal year 2020 totaled \$88.7 million and \$12.5 million for SCRS and PORS respectively. Funds appropriated in future years will be reduced by the excess funds received. The South Carolina 2019-2020 Appropriations Act, Part IA, Section 108 also provided \$2.9 million in nonemployer contributions to JSRS.

The Retirement System Investment Commission is a separate state agency; however, the administrative costs of the RSIC are funded by transfers from the Systems' trust funds. Transfers in the amount of approximately \$11.5 million were made to the RSIC during the fiscal year.

VI. Deferred Retirement Option Plan

A deferred retirement option plan continues to exist under JSRS. A member who has not yet reached the age of 60 years, but who is eligible to retire and receive the maximum monthly benefit, may retire and continue to serve as a judge, a solicitor or a circuit public defender. The member's normal monthly retirement benefit is deferred and placed in the system's trust fund on behalf of the

member. Upon reaching the age of 60 years, the balance of the member's deferred retirement benefit is distributed to the member. As of June 30, 2020, there were no participants in the JSRS deferred retirement option plan and no benefits were held in trust.

VII. Capital Assets

Capital assets at June 30, 2020, consist of the following amounts (expressed in thousands).

Asset Class (at Cost)	Beginning Balances 6/30/2019	Additions	Deletions	Ending Balances 6/30/2020
Land	\$ 582	\$ -	\$ -	\$ 582
Building	4,749			4,749
Equipment	2,134	89		2,223
Total Capital Assets	7,465	89	-	7,554
Accumulated Depreciation				
Building	3,180	119		3,299
Equipment	2,053	46		2,099
Total Accumulated Depreciation	5,233	165	-	5,398
Capital Assets, Net	\$ 2,232	\$ (76)	\$ -	\$ 2,156

VIII. Compensated Absences

As state employees, most full-time permanent employees of SC PEBA's Retirement Division earn 15 days of annual leave and 15 days of sick leave per year during their first ten years of service. After ten years of service is complete, most employees earn an additional 1.25 days of annual leave for each year of service over ten until they reach a maximum of 30 days per year. Sick leave earnings remain at 15 days per year regardless of years of service. Employees may carry forward up to 45 days of annual leave and 180 days of sick leave from one calendar year to the next. Upon termination of employment, employees are eligible to receive payment for up to 45 days of accumulated unused annual leave at the pay rate then in effect. Employees are not eligible to receive payment for accumulated unused sick leave upon termination. As of June 30, 2020, the total amount accrued for unused annual leave for PEBA's Retirement Division employees was \$1.01 million and the associated liability is included in Other Liabilities on the Statement of Fiduciary Net Position.

IX. Participation in Pension Plans

Generally, all employees of PEBA are required to participate in the South Carolina Retirement System (SCRS) or the State Optional Retirement Program (ORP) as a condition of employment. Additional information related to membership, benefits and contribution requirements is contained within these notes to the financial statements.

Employer contributions for Retirement Division staff are paid by PEBA and are allocated to the pension trust funds along with all other administrative expenses. Administrative expenses of the Systems are funded by investment earnings. For the year ended June 30, 2020, PEBA's contributions to SCRS for Retirement Division staff were \$1.34 million of which \$80 thousand represented the nonemployer contribution that was applied as a legislatively appropriated credit.

X. Net Pension Liability of Employers

The total pension liability of each defined benefit pension plan summarized below was determined based on the most recent actuarial valuation, which was conducted using membership data as of July 1, 2019 projected forward to the end of the fiscal year, and financial information as of June 30, 2020, using generally accepted actuarial procedures. Information included in the following schedule is based on the certification provided by our consulting actuary, Gabriel Roeder Smith & Company. A Schedule of Employers' Net Pension Liability is intended to provide information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. This schedule as well as a Schedule of Changes in the Employers' Net Pension Liability is presented in the Required Supplementary Information (RSI) section.

The net pension liability (i.e. the Systems' total pension liability determined in accordance with GASB Statement No. 67 less the fiduciary net position) as of June 30, 2020, is as follows (dollar amounts expressed in thousands):

	Total Pension Liability	Plan Fiduciary Net Position	Employers' Net Pension Liability	Plan Fiduciary Net Position as a % of the Total Pension Liability
SCRS	\$ 51,844,188	\$ 26,292,418	\$ 25,551,770	50.7%
PORS	8,046,387	4,730,175	3,316,212	58.8%
GARS	71,074	34,454	36,620	48.5%
JSRS	411,367	165,250	246,117	40.2%
SCNG	67,501	31,092	36,409	46.1%

Actuarial valuations of the ongoing plan involve estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. South Carolina state statute requires that an actuarial experience study be completed at least once in each five-year period. An experience report on the Systems was most recently issued for the period ending June 30, 2019.

The following table provides a summary of the actuarial assumptions and methods used to calculate the total pension liability for each plan as of June 30, 2020. The total pension liability for each plan is based on the actuarial valuations performed as of July 1, 2019 and rolled-forward from the valuation date to the plans' fiscal year ending June 30, 2020, using generally accepted actuarial principles.

	SCRS	PORS	GARS	JSRS	SCNG
Actuarial cost method	Entry age normal	Entry age normal	Entry age normal	Entry age normal	Entry age normal
Actuarial assumptions:					
Investment rate of return ¹	7.25%	7.25%	7.25%	7.25%	7.25%
Projected salary increases	3.0% to 12.5% (varies by service) ¹	3.5% to 9.5% (varies by service) ¹	None	2.75% ¹	None
Benefit adjustments	lesser of 1% or \$500 annually	lesser of 1% or \$500 annually	None	2.75%	None

¹ Includes inflation at 2.25%

The post-retiree mortality assumption is dependent upon the member's job category and gender. The base mortality assumption, the 2016 Public Retirees of South Carolina Mortality table (2016 PRSC), was developed using the Systems' mortality experience. These base rates are adjusted for future improvement in mortality using published Scale AA projected from the year 2016.

Former Job Class	Males	Females
Educators and Judges	2016 PRSC Males multiplied by 92%	2016 PRSC Females multiplied by 98%
General Employees and Members of the General Assembly	2016 PRSC Males multiplied by 100%	2016 PRSC Females multiplied by 111%
Public Safety, Firefighters and members of the South Carolina National Guard	2016 PRSC Males multiplied by 125%	2016 PRSC Females multiplied by 111%

The long-term expected rate of return on pension plan investments is based upon 20-year capital market assumptions. The long-term expected rates of return represent assumptions developed using an arithmetic building block approach primarily based on consensus expectations and market based inputs. Expected returns are net of investment fees. The expected returns, along with the expected inflation rate, form the basis for the target asset allocation adopted at the beginning of the 2020 fiscal year. The long-term expected rate of return is produced by weighting the expected future real rates of return by the target allocation percentage and adding expected inflation and is summarized in the table below. For actuarial purposes, the 7.25 percent assumed annual investment rate of return used in the calculation of the total pension liability includes a 5.00 percent real rate of return and a 2.25 percent inflation component.

Allocation / Exposure	Policy Target	Expected Arithmetic Real rate of Return	Long Term Expected Portfolio Real Rate of Return
Global Equity	51.0%		
Global Public Equity ^{1,2}	35.0%	7.81%	2.73%
Private Equity ^{2,3}	9.0%	8.91%	0.80%
Equity Options Strategies ¹	7.0%	5.09%	0.36%
Real Assets	12.0%		
Real Estate (Private) ^{2,3}	8.0%	5.55%	0.44%
Real Estate (REITs) ²	1.0%	7.78%	0.08%
Infrastructure (Private) ^{2,3}	2.0%	4.88%	0.10%
Infrastructure (Public) ²	1.0%	7.05%	0.07%
Opportunistic	8.0%		
Global Tactical Asset Allocation ¹	7.0%	3.56%	0.25%
Other Opportunistic Strategies	1.0%	4.41%	0.04%
Credit	15.0%		
High Yield Bonds/ Bank Loans ^{1,2}	4.0%	4.21%	0.17%
Emerging Markets Debt	4.0%	3.44%	0.14%
Private Debt ^{2,3}	7.0%	5.79%	0.40%
Rate Sensitive	14.0%		
Core Fixed Income ¹	13.0%	1.60%	0.21%
Cash and Short Duration (Net)	1.0%	0.56%	0.01%
Total Expected Return⁴	100.0%		5.80%
Inflation for Actuarial Purposes			2.25%
			8.05%

¹ Portable Alpha Strategies will be capped at 12% of total assets; Hedge funds (including all hedge funds used in portable alpha implementation) capped at 20% of total assets

² The target weights to Private Equity, Private Debt, Private Infrastructure and Private Real Estate will be equal to their actual weights as of prior month end. Private Equity and Public Equity combine for 44 percent of entire portfolio. Private Debt and High Yield/Bank Loans combine for 11 percent of the entire portfolio. Private Infrastructure and Public Infrastructure combine for 3 percent of the entire portfolio. Private Real Estate and Real Estate (REITs) combine for 9 percent of entire portfolio.

³ RSIC staff and Consultant will notify the Commission if Private Markets assets exceed 25% of total assets.

⁴ The expected return for each of the Portable Alpha asset classes includes the expected return attributed to the Overlay Program. For benchmarking purposes there is a 10% weight assigned to Portable Alpha Hedge Funds in the Policy Benchmark.

The discount rate used to measure the total pension liability of each plan was 7.25 percent. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers in SCRS and PORS will be made based on the actuarially determined rates based on provisions in the South Carolina Code of Laws. The contributions required for JSRS, GARS, and the SCNG are based on PEBA’s current funding policy which include the change in funding in future years as a result of the enactment of the Retirement System Funding and Administration Act of 2017. Based on those assumptions, the system’s fiduciary net position was projected to be available to make all the projected 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 benefit payments to determine the total pension liability.

In accordance with GASB Statement No. 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the following table presents the net pension liability of the participating employers calculated using the discount rate of 7.25 percent, as well as what the employers’ net pension liability would be if it were calculated using a discount rate that is 1.00 percent lower (6.25 percent) or 1.00 percent higher (8.25 percent) than the current rate.

Discount Rate Sensitivity Analysis

(Amounts expressed in thousands)

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
SCRS	\$ 31,668,285	\$ 25,551,770	\$ 20,444,405
PORS	4,390,106	3,316,212	2,453,944
GARS	42,751	36,620	31,329
JSRS	290,327	246,117	208,661
SCNG	44,834	36,409	29,504

XI. Death Benefit Program

In addition to monthly pension benefits provided through the Systems, a death benefit program is available to employers. For participating employers, incidental death benefits are provided for both active and retired members. These benefits are funded through separate death benefit programs within SCRS and PORS on a cost-sharing, multiple-employer basis. The assets in the death benefits fund are not held separately in a dedicated trust for the sole purpose of paying death benefits to beneficiaries of deceased members. These benefits are considered allowable within the defined benefit plans and are held within the pension trust funds. Coverage is provided to eligible active and retired working members as well as non-working retirees under the governing statute. Funding for the plans

is collected as a percent of covered payroll as determined by the Systems’ actuary and approved by the governing board. The current employer contribution rates for the programs are 0.15 percent and 0.20 percent of payroll for SCRS and PORS respectively. These contributions fund both the active and retiree death benefits.

Active Death Benefits

An incidental death benefit is payable upon the death of an SCRS, State ORP or PORS contributing member who worked for a participating employer at the time of death. The member must have been in service and had at least one full year of membership or must have died as a result of an injury arising in the course of performing his duties

regardless of length of membership. The incidental death benefit is equal to the annual earnable compensation of the member at the time of death and is payable apart and separate from the payment of pension benefits.

Retiree Death Benefits

Retired members of SCRS and PORS whose last employer prior to retirement is covered by the program, and who met applicable service credit requirements, are also protected under the state-sponsored death benefit program. Upon the death of a retired member, the beneficiary of a non-working retiree will receive a benefit payment of \$2,000, \$4,000 or \$6,000 based on the member's total creditable service at the time of retirement.

Members who work after retirement by returning to covered employment as a working retiree are eligible for an increased level of death benefits. Beneficiaries of working retirees are provided with a death benefit equal to the amount of the member's annual earnable compensation in lieu of the standard \$2,000, \$4,000 or \$6,000 retired member benefit.

All benefits provided by the Systems are included in the actuarial valuations, including the incidental death benefit program for SCRS, PORS, GARS and JSRS. The July 1, 2019 actuarial valuations reflect the inclusion of the assets and liabilities of the incidental death benefit program and accidental death benefits for PORS.

XII. Litigation

The following claim against SCRS has been dismissed by the court, however the case remains active due to remaining claims against other defendants, the appeals process, and a related matter on appeal to the Supreme Court.

Marc S. Kirschner, as Litigation Trustee for the Tribune Litigation Trust v. Dennis J. Fitzsimmons, et al., United States District Court Southern District of New York, Case No. 1:11-cv-02652. This case is a bankruptcy litigation matter filed on December 20, 2011 and has been stayed since shortly after it was filed. The Plaintiff attempted to serve a summons on the South Carolina Retirement System in August 2013. SCRS is a defendant as a result of selling

Tribune Company stock in connection with a leveraged buyout of the Tribune Company in 2007. Through this lawsuit the creditors of the Tribune Company are attempting to claw-back funds received by SCRS in connection with the sale of the stock. The plaintiff has asserted a claim of approximately two million dollars against SCRS. The South Carolina Retirement System Investment Commission contests the amount the plaintiff alleges SCRS received, contends that there are persuasive arguments favoring dismissal, and has engaged counsel to represent SCRS in this matter.

South Carolina Retirement Systems Required Supplementary Information

Schedule of Changes in the Employers' Net Pension Liability¹

SCRS Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability							
Service cost	\$ 975,416	\$ 967,897	\$ 910,846	\$ 804,057	\$ 763,357	\$ 744,197	\$ 739,021
Interest	3,551,535	3,463,073	3,401,588	3,318,051	3,231,572	3,148,090	3,021,004
Benefit changes							
Difference between actual and expected experience	392,332	(101,351)	(172,340)	54,584	46,714	(44,636)	638,745
Assumption changes				1,746,649			
Benefit payments	(3,148,155)	(3,078,289)	(3,562,801)	(3,035,119)	(2,782,738)	(2,705,547)	(2,571,049)
Net Change in Total Pension Liability	1,771,128	1,251,330	577,293	2,888,222	1,258,905	1,142,104	1,827,721
Total Pension Liability - Beginning	50,073,060	48,821,730	48,244,437	45,356,215	44,097,310	42,955,206	41,127,485
Total Pension Liability - Ending (a)	<u>\$ 51,844,188</u>	<u>\$ 50,073,060</u>	<u>\$ 48,821,730</u>	<u>\$ 48,244,437</u>	<u>\$ 45,356,215</u>	<u>\$ 44,097,310</u>	<u>\$ 42,955,206</u>
Plan Fiduciary Net Position							
Employer contributions	\$ 1,647,757	\$ 1,450,308	\$ 1,300,477	\$ 1,168,847	\$ 1,072,659	\$ 1,022,478	\$ 962,798
Nonemployer contributions	88,706	88,706	104,974				
Employee contributions	922,539	880,664	868,681	826,543	754,153	716,107	652,631
Refunds of contributions to members	(117,860)	(118,067)	(113,867)	(105,169)	(93,694)	(95,104)	(90,250)
Annuity benefits	(3,007,545)	(2,938,416)	(3,426,650)	(2,907,273)	(2,668,385)	(2,590,299)	(2,461,559)
Death benefits	(22,750)	(21,806)	(22,284)	(22,677)	(20,659)	(20,144)	(19,240)
Net investment income (loss)	(441,580)	1,499,391	1,986,948	2,791,215	(165,394)	374,152	3,517,324
Administrative expenses	(14,218)	(15,536)	(14,658)	(13,469)	(13,149)	(12,554)	(11,765)
Net transfers to other systems	(1,547)	(1,244)	(1,534)	(1,550)	(997)	(1,329)	(2,470)
Net Change in Plan Fiduciary Net Position	(946,498)	824,000	682,087	1,736,467	(1,135,466)	(606,693)	2,547,469
Plan Fiduciary Net Position - Beginning	27,238,916	26,414,916	25,732,829	23,996,362	25,131,828	25,738,521	23,191,052
Plan Fiduciary Net Position - Ending (b)	<u>\$ 26,292,418</u>	<u>\$ 27,238,916</u>	<u>\$ 26,414,916</u>	<u>\$ 25,732,829</u>	<u>\$ 23,996,362</u>	<u>\$ 25,131,828</u>	<u>\$ 25,738,521</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 25,551,770</u>	<u>\$ 22,834,144</u>	<u>\$ 22,406,814</u>	<u>\$ 22,511,608</u>	<u>\$ 21,359,853</u>	<u>\$ 18,965,482</u>	<u>\$ 17,216,685</u>

¹ Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability¹

PORS Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability							
Service cost	\$ 198,744	\$ 189,379	\$ 184,570	\$ 166,682	\$ 156,567	\$ 154,102	\$ 149,606
Interest	548,454	528,699	500,758	473,059	453,696	435,329	417,950
Benefit changes							-
Difference between actual and expected experience	49,922	(27,766)	102,882	5,044	11,582	6,771	64,336
Assumption changes				333,190			
Benefit payments	(432,483)	(412,535)	(397,921)	(376,801)	(360,656)	(344,410)	(331,783)
Net Change in Total Pension Liability	364,637	277,777	390,289	601,174	261,189	251,792	300,109
Total Pension Liability - Beginning	7,681,750	7,403,973	7,013,684	6,412,510	6,151,321	5,899,529	5,599,420
Total Pension Liability - Ending (a)	\$ 8,046,387	\$ 7,681,750	\$ 7,403,973	\$ 7,013,684	\$ 6,412,510	\$ 6,151,321	\$ 5,899,529
Plan Fiduciary Net Position							
Employer contributions	\$ 263,135	\$ 237,821	\$ 211,793	\$ 192,006	\$ 175,223	\$ 166,451	\$ 155,608
Nonemployer contributions	12,470	12,470	13,122				
Employee contributions	151,835	144,747	138,652	127,840	115,188	106,854	96,004
Refunds of contributions to members	(22,492)	(21,608)	(23,899)	(19,964)	(19,178)	(17,453)	(16,184)
Annuity benefits	(405,790)	(387,228)	(369,536)	(352,986)	(337,928)	(323,252)	(311,593)
Death benefits	(4,201)	(3,699)	(4,485)	(3,852)	(3,550)	(3,705)	(4,007)
Net investment income (loss)	(79,106)	264,323	331,529	455,914	(24,636)	58,705	538,386
Administrative expenses	(2,469)	(2,596)	(2,402)	(2,149)	(2,055)	(1,938)	(1,820)
Net transfers to other systems	984	1,148	1,534	1,278	1,147	1,061	2,260
Net Change in Plan Fiduciary Net Position	(85,634)	245,378	296,308	398,087	(95,789)	(13,277)	458,654
Plan Fiduciary Net Position - Beginning	4,815,809	4,570,431	4,274,123	3,876,036	3,971,825	3,985,102	3,526,448
Plan Fiduciary Net Position - Ending (b)	\$ 4,730,175	\$ 4,815,809	\$ 4,570,431	\$ 4,274,123	\$ 3,876,036	\$ 3,971,825	\$ 3,985,102
Net Pension Liability - Ending (a) - (b)	\$ 3,316,212	\$ 2,865,941	\$ 2,833,542	\$ 2,739,561	\$ 2,536,474	\$ 2,179,496	\$ 1,914,427

¹ Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability¹

GARS Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability							
Service cost	\$ 358	\$ 440	\$ 464	\$ 488	\$ 493	\$ 553	\$ 572
Interest	5,003	5,149	5,200	5,293	5,301	5,380	5,437
Benefit changes							
Difference between actual and expected experience	60	(1,135)	138	(348)	798	(294)	(2,585)
Assumption changes				2,330			
Benefit payments	(6,348)	(6,515)	(6,468)	(6,737)	(6,656)	(6,660)	(6,861)
Net Change in Total Pension Liability	(927)	(2,061)	(666)	1,026	(64)	(1,021)	(3,437)
Total Pension Liability - Beginning	72,001	74,062	74,728	73,702	73,766	74,787	78,224
Total Pension Liability - Ending (a)	\$ 71,074	\$ 72,001	\$ 74,062	\$ 74,728	\$ 73,702	\$ 73,766	\$ 74,787
Plan Fiduciary Net Position							
Employer contributions	\$ 6,329	\$ 5,804	\$ 5,428	\$ 4,539	\$ 4,501	\$ 4,275	\$ 4,063
Employee contributions	222	162	287	468	292	369	384
Refunds of contributions to members		(17)			(22)		(41)
Annuity benefits	(6,323)	(6,480)	(6,452)	(6,678)	(6,625)	(6,639)	(6,799)
Death benefits	(25)	(18)	(16)	(59)	(9)	(21)	(20)
Net investment income (loss)	(443)	1,887	2,376	3,329	(266)	500	4,545
Administrative expenses	(18)	(20)	(18)	(17)	(18)	(18)	(17)
Net transfers to other systems				19	(147)	(18)	15
Net Change in Plan Fiduciary Net Position	(258)	1,318	1,605	1,601	(2,294)	(1,552)	2,130
Plan Fiduciary Net Position - Beginning	34,712	33,394	31,789	30,188	32,482	34,034	31,904
Plan Fiduciary Net Position - Ending (b)	\$ 34,454	\$ 34,712	\$ 33,394	\$ 31,789	\$ 30,188	\$ 32,482	\$ 34,034
Net Pension Liability - Ending (a) - (b)	\$ 36,620	\$ 37,289	\$ 40,668	\$ 42,939	\$ 43,514	\$ 41,284	\$ 40,753

¹ Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability¹

JSRS Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability							
Service cost	\$ 8,919	\$ 6,645	\$ 6,521	\$ 6,186	\$ 5,886	\$ 5,760	\$ 5,571
Interest	28,154	21,737	21,271	20,404	20,022	19,440	18,857
Benefit changes						666	
Difference between actual and expected experience	3,262	80,801	(3,548)	(995)	(3,085)	(1,138)	(3,240)
Assumption changes				13,790			
Benefit payments	(25,673)	(17,950)	(17,811)	(18,602)	(17,191)	(16,836)	(16,684)
Net Change in Total Pension Liability	14,662	91,233	6,433	20,783	5,632	7,892	4,504
Total Pension Liability - Beginning	396,705	305,472	299,039	278,256	272,624	264,732	260,228
Total Pension Liability - Ending (a)	\$ 411,367	\$ 396,705	\$ 305,472	\$ 299,039	\$ 278,256	\$ 272,624	\$ 264,732
Plan Fiduciary Net Position							
Employer contributions	\$ 19,098	\$ 11,730	\$ 11,043	\$ 10,534	\$ 10,202	\$ 10,109	\$ 9,659
Nonemployer contributions	2,900						
Employee contributions	4,966	2,840	3,016	2,928	2,303	3,153	2,448
Refunds of contributions to members	(182)			(629)	(60)		
Annuity benefits	(25,301)	(17,947)	(17,655)	(17,679)	(16,989)	(16,832)	(16,675)
Death benefits	(190)	(3)	(156)	(293)	(143)	(4)	(10)
Net investment income (loss)	(2,361)	9,183	11,723	16,399	(871)	2,216	19,962
Administrative expenses	(86)	(92)	(86)	(79)	(75)	(71)	(68)
Net transfers to other systems	563	96		253	(3)	286	195
Net Change in Plan Fiduciary Net Position	(593)	5,807	7,885	11,434	(5,636)	(1,143)	15,511
Plan Fiduciary Net Position - Beginning	165,843	160,036	152,151	140,717	146,353	147,496	131,985
Plan Fiduciary Net Position - Ending (b)	\$ 165,250	\$ 165,843	\$ 160,036	\$ 152,151	\$ 140,717	\$ 146,353	\$ 147,496
Net Pension Liability - Ending (a) - (b)	\$ 246,117	\$ 230,862	\$ 145,436	\$ 146,888	\$ 137,539	\$ 126,271	\$ 117,236

¹ Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability¹

SCNG Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability							
Service cost	\$ 805	\$ 786	\$ 804	\$ 696	\$ 689	\$ 690	\$ 697
Interest	4,731	4,764	4,743	4,589	4,594	4,481	4,417
Benefit changes							
Difference between actual and expected experience	(627)	(1,501)	(767)	(843)	(992)	612	(262)
Assumption changes				4,161			
Benefit payments	(4,514)	(4,534)	(4,411)	(4,426)	(4,310)	(4,249)	(4,248)
Net Change in Total Pension Liability	395	(485)	369	4,177	(19)	1,534	604
Total Pension Liability - Beginning	67,106	67,591	67,222	63,045	63,064	61,530	60,926
Total Pension Liability - Ending (a)	\$ 67,501	\$ 67,106	\$ 67,591	\$ 67,222	\$ 63,045	\$ 63,064	\$ 61,530
Plan Fiduciary Net Position							
Employer contributions	\$ 5,290	\$ 5,290	\$ 4,814	\$ 4,591	\$ 4,591	\$ 4,591	\$ 4,586
Employee contributions							
Refunds of contributions to members							
Annuity benefits	(4,514)	(4,534)	(4,411)	(4,425)	(4,310)	(4,249)	(4,248)
Death benefits							
Net investment income (loss)	(352)	1,616	1,902	2,533	(121)	313	2,806
Administrative expenses	(15)	(16)	(14)	(13)	(12)	(11)	(10)
Net transfers to other systems							
Net Change in Plan Fiduciary Net Position	409	2,356	2,291	2,686	148	644	3,134
Plan Fiduciary Net Position - Beginning	30,683	28,327	26,036	23,350	23,202	22,558	19,424
Plan Fiduciary Net Position - Ending (b)	\$ 31,092	\$ 30,683	\$ 28,327	\$ 26,036	\$ 23,350	\$ 23,202	\$ 22,558
Net Pension Liability - Ending (a) - (b)	\$ 36,409	\$ 36,423	\$ 39,264	\$ 41,186	\$ 39,695	\$ 39,862	\$ 38,972

¹ Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems Required Supplementary Information (continued)

Schedule of Employers' Net Pension Liability¹

(Dollar amounts expressed in thousands)

	Total Pension Liability	Plan Fiduciary Net Position	Employers' Net Pension Liability (Asset)	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	Projected Covered Payroll ²	Net Pension Liability as a Percentage of Covered Payroll
SCRS						
6/30/2020	\$ 51,844,188	\$ 26,292,418	\$ 25,551,770	50.7%	\$ 9,272,010	275.6%
6/30/2019	50,073,060	27,238,916	22,834,144	54.4%	9,183,081	248.7%
6/30/2018	48,821,730	26,414,916	22,406,814	54.1%	8,592,885	260.8%
6/30/2017	48,244,437	25,732,829	22,511,608	53.3%	8,213,042	274.1%
6/30/2016	45,356,215	23,996,362	21,359,853	52.9%	7,765,588	275.1%
6/30/2015	44,097,310	25,131,828	18,965,482	57.0%	7,539,996	251.5%
6/30/2014	42,955,206	25,738,521	17,216,685	59.9%	7,434,820	231.6%
PORS						
6/30/2020	8,046,387	4,730,175	3,316,212	58.8%	1,378,255	240.6%
6/30/2019	7,681,750	4,815,809	2,865,941	62.7%	1,306,961	219.3%
6/30/2018	7,403,973	4,570,431	2,833,542	61.7%	1,263,314	224.3%
6/30/2017	7,013,684	4,274,123	2,739,561	60.9%	1,187,195	230.8%
6/30/2016	6,412,510	3,876,036	2,536,474	60.4%	1,105,703	229.4%
6/30/2015	6,151,321	3,971,825	2,179,496	64.6%	1,076,885	202.4%
6/30/2014	5,899,529	3,985,102	1,914,427	67.5%	1,033,189	185.3%
GARS						
6/30/2020	71,074	34,454	36,620	48.5%	1,570	2,332.1%
6/30/2019	72,001	34,712	37,289	48.2%	1,866	1,998.8%
6/30/2018	74,062	33,394	40,668	45.1%	1,961	2,074.3%
6/30/2017	74,728	31,789	42,939	42.5%	2,316	1,853.7%
6/30/2016	73,702	30,188	43,514	41.0%	2,338	1,861.0%
6/30/2015	73,766	32,482	41,284	44.0%	2,601	1,587.5%
6/30/2014	74,787	34,034	40,753	45.5%	2,688	1,516.2%
JSRS						
6/30/2020	411,367	165,250	246,117	40.2%	30,346	811.0%
6/30/2019	396,705	165,843	230,862	41.8%	22,347	1,033.1%
6/30/2018	305,472	160,036	145,436	52.4%	22,347	650.8%
6/30/2017	299,039	152,151	146,888	50.9%	21,958	668.9%
6/30/2016	278,256	140,717	137,539	50.6%	21,267	646.7%
6/30/2015	272,624	146,353	126,271	53.7%	20,815	606.6%
6/30/2014	264,732	147,496	117,236	55.7%	20,407	574.5%
SCNG						
6/30/2020	67,501	31,092	36,409	46.1%	Not Applicable ³	Not Applicable ³
6/30/2019	67,106	30,683	36,423	45.7%	Not Applicable ³	Not Applicable ³
6/30/2018	67,591	28,327	39,264	41.9%	Not Applicable ³	Not Applicable ³
6/30/2017	67,222	26,036	41,186	38.7%	Not Applicable ³	Not Applicable ³
6/30/2016	63,045	23,350	39,695	37.0%	Not Applicable ³	Not Applicable ³
6/30/2015	63,064	23,202	39,862	36.8%	Not Applicable ³	Not Applicable ³
6/30/2014	61,530	22,558	38,972	36.7%	Not Applicable ³	Not Applicable ³

¹ Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

² Projected covered payroll is the annualized, projected compensation for the following year and does not include payroll attributable to members in State ORP or working retirees.

³ The contributions and benefits associated with the SCNG are not determined as a function of payroll.

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Employers' and Nonemployer's Contributions

(Dollar amounts expressed in thousands)

	Actuarially Determined Contributions ³	Amount of Contributions Recognized ³	Difference Between Actuarially Determined Contributions and Contributions Recognized	Projected Covered Payroll ⁴	Percentage of Contributions to Covered Payroll
SCRS¹					
6/30/2020	\$ 1,736,463	\$ 1,736,463	\$ -	\$ 9,272,010	18.7%
6/30/2019	1,539,014	1,539,014		9,183,081	16.8%
6/30/2018	1,405,451	1,405,451		8,592,885	16.4%
6/30/2017	1,168,847	1,168,847		8,213,042	14.2%
6/30/2016	1,072,659	1,072,659		7,765,588	13.8%
6/30/2015	1,022,478	1,022,478		7,539,996	13.6%
6/30/2014	962,798	962,798		7,434,820	12.9%
6/30/2013	948,157	948,157		7,356,231	12.9%
6/30/2012	824,652	824,652		7,687,558	10.7%
6/30/2011	808,343	808,343		7,769,820	10.4%
PORS¹					
6/30/2020	275,605	275,605		1,378,255	20.0%
6/30/2019	250,291	250,291		1,306,961	19.2%
6/30/2018	224,915	224,915		1,263,314	17.8%
6/30/2017	192,006	192,006		1,187,195	16.2%
6/30/2016	175,223	175,223		1,105,703	15.8%
6/30/2015	166,451	166,451		1,076,885	15.5%
6/30/2014	155,608	155,608		1,033,189	15.1%
6/30/2013	143,389	143,389		1,019,241	14.1%
6/30/2012	134,299	134,299		1,087,587	12.3%
6/30/2011	129,314	129,314		1,076,467	12.0%
GARS⁵					
6/30/2020	6,329	6,329		1,570	403.1%
6/30/2019	5,804	5,804		1,866	311.0%
6/30/2018	5,428	5,428		1,961	276.8%
6/30/2017	4,539	4,539		2,316	196.0%
6/30/2016	4,501	4,501		2,338	192.5%
6/30/2015	4,275	4,275		2,601	164.4%
6/30/2014	4,063	4,063		2,688	151.2%
6/30/2013	2,831	2,831		3,854	73.5%
6/30/2012	2,532	2,532		3,854	65.7%
6/30/2011	2,414	2,414		3,854	62.6%

Schedule of Employers' and Nonemployer's Contributions continued on next page

South Carolina Retirement Systems Required Supplementary Information (continued)

Schedule of Employers' and Nonemployer's Contributions (cont.)

(Dollar amounts expressed in thousands)

	Actuarially Determined Contributions ³	Amount of Contributions Recognized ³	Difference Between Actuarially Determined Contributions and Contributions Recognized	Projected Covered Payroll ⁴	Percentage of Contributions to Covered Payroll
JSRS²					
6/30/2020	\$ 21,998	\$ 21,998	\$ -	\$ 30,346	72.5%
6/30/2019	11,730	11,730		22,347	52.5%
6/30/2018	11,044	11,044		22,347	49.4%
6/30/2017	10,534	10,534		21,958	48.0%
6/30/2016	10,202	10,202		21,267	48.0%
6/30/2015	10,109	10,109		20,815	48.6%
6/30/2014	9,659	9,659		20,407	47.3%
6/30/2013	8,667	8,667		19,221	45.1%
6/30/2012	8,414	8,414		18,661	45.1%
6/30/2011	8,414	8,414		18,661	45.1%
SCNG⁶					
6/30/2020	5,262	5,290	(28)	Not Applicable	Not Applicable
6/30/2019	5,290	5,290		Not Applicable	Not Applicable
6/30/2018	4,814	4,814		Not Applicable	Not Applicable
6/30/2017	4,509	4,591	(82)	Not Applicable	Not Applicable
6/30/2016	4,570	4,591	(21)	Not Applicable	Not Applicable
6/30/2015	4,591	4,591		Not Applicable	Not Applicable
6/30/2014	4,586	4,586		Not Applicable	Not Applicable
6/30/2013	4,539	4,539		Not Applicable	Not Applicable
6/30/2012	3,937	3,937		Not Applicable	Not Applicable
6/30/2011	3,905	3,905		Not Applicable	Not Applicable

¹ The actual contribution rates and the actuarially determined contribution rates for SCRS and PORS are determined in accordance with Sections 9-1-1085 and 9-11-225 of the South Carolina Code, respectively. The SCRS and PORS employer contribution rates effective July 1, 2019, are 15.56 percent and 18.24 percent, respectively.

² The contribution rate for JSRS is based on the funding policy maintained by the SC Public Employee Benefit Authority. The JSRS employer contribution rate adopted by the PEBA Board effective July 1, 2019, is 62.94 percent and the remaining portion of the contribution effort is attributable to the \$2.9 million in non-payroll based appropriations.

³ Includes employer contributions on employee payroll and contributions remitted to SCRS on the payroll of employees participating in State ORP and working retirees. Total contributions for SCRS, PORS and JSRS also includes nonemployer contributions.

⁴ Projected covered payroll is the annualized, projected compensation for the following year and does not include payroll attributable to members in State ORP or working retirees.

⁵ GARS was closed to new members beginning with the 2012 general election. The actuarially determined contributions are based on the funding policy maintained by the SC Public Employee Benefit Authority.

⁶ Benefits for members in the SCNG are not a function of pay. The actuarially determined contributions are based on the funding policy maintained by the SC Public Employee Benefit Authority.

South Carolina Retirement Systems Required Supplementary Information (continued)

Schedule of Investment Returns¹

Fiscal Year Ending June 30	Annual Money Weighted Rate of Return, Net of Investment Expense
2020	(1.57)%
2019	5.80
2018	7.91
2017	11.88
2016	(0.47)
2015	1.59
2014	15.30

¹ Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Notes to Required Supplementary Information

The following table provides a summary of the actuarial methods and significant assumptions used in calculations of the actuarially determined contributions for fiscal year 2020 for each of the individual plans administered by PEBA.

Summary of Actuarial Methods and Significant Assumptions¹

	SCRS	PORS	GARS	JSRS	SCNG
Valuation date	07/01/18	07/01/18	07/01/18	07/01/18	07/01/18
Actuarial cost method	Entry age normal	Entry age normal	Entry age normal	Entry age normal	Entry age normal
Amortization method	Level percent of pay	Level percent of pay	Level dollar	Level percent of pay	Level dollar
Amortization period	29 years maximum, closed period ²	29 years maximum, closed period ²	9 years, closed	29 years variable, but not to exceed 30 years	18 years, closed
Asset Valuation method	5-Year Smoothed	5-Year Smoothed	5-Year Smoothed	5-Year Smoothed	5-Year Smoothed
Actuarial assumptions:					
Inflation rate	2.25%	2.25%	2.25%	2.25%	2.25%
Projected salary increases	3.0% plus step-rate increases for members with less than 21 years of service ³	3.5% plus step-rate increases for members with less than 15 years of service ³	None	2.75% ³	None
Investment rate of return	7.25%	7.25%	7.25%	7.25%	7.25%
Benefit adjustments	lesser of 1% or \$500 annually	lesser of 1% or \$500 annually	None	2.75%	None

¹ The actual contribution rates and the actuarially determined contribution rates for SCRS and PORS are determined in accordance with Sections 9-1-1085 and 9-11-225 of the South Carolina Code, respectively. Contribution requirements for JSRS, GARS and the SCNG are determined in accordance with funding policies established and maintained by the PEBA Board.

² Pension reform legislation enacted effective July 1, 2017 schedules the amortization period to be reduced one year for each of the next 10 years, to 20 years.

³ Includes inflation at 2.25%.

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

SCRS Pension Trust Fund
Year Ended June 30, 2020

With summarized comparative totals for the year ended June 30, 2019
(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	DEATH BENEFIT FUND	QEBA FUND	TOTAL	2019 TOTAL
Additions						
Employee contributions						
State	\$ 266,867	\$ 11,038	\$ -	\$ -	\$ 277,905	\$ 263,848
Public school	370,589	23,493			394,082	376,447
Other	239,943	10,609			250,552	240,369
Employer contributions						
State		552,429	6,265	895	559,589	483,352
Public school		672,059	7,212		679,271	599,245
Other		405,281	3,616		408,897	367,711
Nonemployer contributions						
State		31,126			31,126	31,126
Public school		43,822			43,822	43,822
Other		13,758			13,758	13,758
Total contributions	<u>877,399</u>	<u>1,763,615</u>	<u>17,093</u>	<u>895</u>	<u>2,659,002</u>	<u>2,419,678</u>
Investment income						
Net appreciation (depreciation)						
in fair value of investments		(758,769)	(3,606)		(762,375)	1,255,386
Interest and dividend income		510,935	2,422		513,357	521,382
Investment expense		(193,957)	(921)		(194,878)	(279,952)
Net income (loss) from investing activities		<u>(441,791)</u>	<u>(2,105)</u>		<u>(443,896)</u>	<u>1,496,816</u>
From securities lending activities:						
Securities lending income		2,157	10		2,167	2,825
Securities lending borrower rebates		148	1		149	(250)
Net income from securities lending activities		<u>2,305</u>	<u>11</u>		<u>2,316</u>	<u>2,575</u>
Total net investment income (loss)		<u>(439,486)</u>	<u>(2,094)</u>		<u>(441,580)</u>	<u>1,499,391</u>
Supplemental retirement benefits funded by the State		291			291	320
Total additions	<u>877,399</u>	<u>1,324,420</u>	<u>14,999</u>	<u>895</u>	<u>2,217,713</u>	<u>3,919,389</u>
Deductions						
Refunds of contributions to members	117,860				117,860	118,067
Transfers of contributions to other systems	1,166	381			1,547	1,244
Regular retirement benefits		3,006,650		895	3,007,545	2,938,416
Supplemental retirement benefits		291			291	320
Death benefits		(9)	22,759		22,750	21,806
Depreciation		146			146	151
Administrative expenses		14,005	67		14,072	15,385
Total deductions	<u>119,026</u>	<u>3,021,464</u>	<u>22,826</u>	<u>895</u>	<u>3,164,211</u>	<u>3,095,389</u>
Interfund transfers according to statutory requirements						
Contributions by members at retirement	(469,919)	469,919				
Interest credited to members' accounts	319,566	(319,566)				
Net interfund transfers	<u>(150,353)</u>	<u>150,353</u>				
Net increase (decrease) in Net Position	608,020	(1,546,691)	(7,827)		(946,498)	824,000
Net Position Restricted for Pensions						
Beginning of year	9,106,400	18,003,689	128,827		27,238,916	26,414,916
End of year	<u>\$ 9,714,420</u>	<u>\$ 16,456,998</u>	<u>\$ 121,000</u>	<u>\$ -</u>	<u>\$ 26,292,418</u>	<u>\$ 27,238,916</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

PORS Pension Trust Fund
Year Ended June 30, 2020

With summarized comparative totals for the year ended June 30, 2019
(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	DEATH BENEFIT FUND	ACCIDENTAL DEATH FUND	QEBA FUND	TOTAL	2019 TOTAL
Additions							
Employee contributions							
State	\$ 42,888	\$ 2,168	\$ -	\$ -	\$ -	\$ 45,056	\$ 44,347
Public school	58	474				532	547
Other	97,625	8,622				106,247	99,853
Employer contributions							
State		75,897	896	896	2	77,691	72,253
Public school		893	10	10		913	849
Other		180,504	2,070	1,957		184,531	164,719
Nonemployer contributions							
State		4,070				4,070	4,070
Public school		44				44	44
Other		8,356				8,356	8,356
Total contributions	<u>140,571</u>	<u>281,028</u>	<u>2,976</u>	<u>2,863</u>	<u>2</u>	<u>427,440</u>	<u>395,038</u>
Investment income							
Net appreciation (depreciation)							
in fair value of investments		(132,978)	(1,410)	(1,907)		(136,295)	221,668
Interest and dividend income		89,440	946	1,280		91,666	91,513
Investment expense		(34,041)	(361)	(488)		(34,890)	(49,309)
Net income (loss) from investing activities		<u>(77,579)</u>	<u>(825)</u>	<u>(1,115)</u>		<u>(79,519)</u>	<u>263,872</u>
From securities lending activities:							
Securities lending income		377	4	5		386	494
Securities lending borrower rebates		27				27	(43)
Net income from securities lending activities		<u>404</u>	<u>4</u>	<u>5</u>		<u>413</u>	<u>451</u>
Total net investment income (loss)		<u>(77,175)</u>	<u>(821)</u>	<u>(1,110)</u>		<u>(79,106)</u>	<u>264,323</u>
Supplemental retirement benefits funded by the State		10				10	13
Transfers of contributions from other systems	617	381				998	1,148
Total additions	<u>141,188</u>	<u>204,244</u>	<u>2,155</u>	<u>1,753</u>	<u>2</u>	<u>349,342</u>	<u>660,522</u>
Deductions							
Refunds of contributions to members	22,492					22,492	21,608
Transfers of contributions to other systems	14					14	
Regular retirement benefits		405,788			2	405,790	387,228
Supplemental retirement benefits		10				10	13
Death Benefits		(6)	2,365			2,359	1,890
Accidental death benefits				1,842		1,842	1,809
Depreciation		18				18	19
Administrative expenses		2,392	25	34		2,451	2,577
Total deductions	<u>22,506</u>	<u>408,202</u>	<u>2,390</u>	<u>1,876</u>	<u>2</u>	<u>434,976</u>	<u>415,144</u>
Interfund transfers according to statutory requirements							
Contributions by members at retirement	(75,645)	75,645					
Interest credited to members' accounts	<u>42,512</u>	<u>(42,512)</u>					
Net interfund transfers	<u>(33,133)</u>	<u>33,133</u>					
Net increase (decrease) in Net Position	85,549	(170,825)	(235)	(123)		(85,634)	245,378
Net Position Restricted for Pensions							
Beginning of year	1,179,539	3,519,048	49,837	67,385		4,815,809	4,570,431
End of year	<u>\$ 1,265,088</u>	<u>\$ 3,348,223</u>	<u>\$ 49,602</u>	<u>\$ 67,262</u>	<u>\$ -</u>	<u>\$ 4,730,175</u>	<u>\$ 4,815,809</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

GARS Pension Trust Fund
Year Ended June 30, 2020

With summarized comparative totals for the year ended June 30, 2019
(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	QEBA FUND	TOTAL	2019 TOTAL
Additions					
Contributions					
Employee contributions - State	\$ 222	\$ -	\$ -	\$ 222	\$ 162
Employer contributions - State		6,326	3	6,329	5,804
Total contributions	<u>222</u>	<u>6,326</u>	<u>3</u>	<u>6,551</u>	<u>5,966</u>
Investment income					
Net appreciation (depreciation) in fair value of investments		(908)		(908)	1,484
Interest and dividend income		695		695	729
Investment expense		(233)		(233)	(329)
Net income (loss) from investing activities		<u>(446)</u>		<u>(446)</u>	<u>1,884</u>
From securities lending activities:					
Securities lending income		3		3	3
Net income from securities lending activities		<u>3</u>		<u>3</u>	<u>3</u>
Total net investment income (loss)		<u>(443)</u>		<u>(443)</u>	<u>1,887</u>
Total additions	<u>222</u>	<u>5,883</u>	<u>3</u>	<u>6,108</u>	<u>7,853</u>
Deductions					
Refunds of contributions to members				-	17
Regular retirement benefits		6,320	3	6,323	6,480
Death benefits		25		25	18
Administrative expenses		18		18	20
Total deductions		<u>6,363</u>	<u>3</u>	<u>6,366</u>	<u>6,535</u>
Interfund transfers according to statutory requirements					
Contributions by members at retirement	(40)	40			
Interest credited to members' accounts	203	(203)			
Net interfund transfers	<u>163</u>	<u>(163)</u>			
Net increase (decrease) in Net Position	385	(643)		(258)	1,318
Net Position Restricted for Pensions					
Beginning of year	6,661	28,051		34,712	33,394
End of year	<u>\$ 7,046</u>	<u>\$ 27,408</u>	<u>\$ -</u>	<u>\$ 34,454</u>	<u>\$ 34,712</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

JSRS Pension Trust Fund
Year Ended June 30, 2020

With summarized comparative totals for the year ended June 30, 2019
(Amounts expressed in thousands)

	<u>EMPLOYEE FUND</u>	<u>EMPLOYER FUND</u>	<u>QEBA FUND</u>	<u>TOTAL</u>	<u>2019 TOTAL</u>
Additions					
Contributions					
Employee contributions - State	\$ 4,641	\$ 325	\$ -	\$ 4,966	\$ 2,840
Employer contributions - State		18,695	403	19,098	11,730
Nonemployer contributions		2,900		2,900	
Total contributions	<u>4,641</u>	<u>21,920</u>	<u>403</u>	<u>26,964</u>	<u>14,570</u>
Investment income					
Net appreciation (depreciation)					
in fair value of investments		(4,575)		(4,575)	7,519
Interest and dividend income		3,375		3,375	3,319
Investment expense		(1,175)		(1,175)	(1,670)
Net income (loss) from investing activities		<u>(2,375)</u>		<u>(2,375)</u>	<u>9,168</u>
From securities lending activities:					
Securities lending income		13		13	17
Securities lending borrower rebates		1		1	(2)
Net income from securities lending activities		<u>14</u>		<u>14</u>	<u>15</u>
Total net investment income (loss)		<u>(2,361)</u>		<u>(2,361)</u>	<u>9,183</u>
Transfers of contributions from other systems	563			563	96
Total additions	<u>5,204</u>	<u>19,559</u>	<u>403</u>	<u>25,166</u>	<u>23,849</u>
Deductions					
Refunds of contributions to members	182			182	
Regular retirement benefits		24,442	403	24,845	17,947
Deferred retirement benefits		456		456	
Death benefits		190		190	3
Depreciation		1		1	1
Administrative expenses		85		85	91
Total deductions	<u>182</u>	<u>25,174</u>	<u>403</u>	<u>25,759</u>	<u>18,042</u>
Interfund transfers according to statutory requirements					
Contributions by members at retirement	(3,268)	3,268			
Interest credited to members' accounts	1,110	(1,110)			
Net interfund transfers	<u>(2,158)</u>	<u>2,158</u>			
Net increase (decrease) in Net Position	<u>2,864</u>	<u>(3,457)</u>		<u>(593)</u>	<u>5,807</u>
Net Position Restricted for Pensions					
Beginning of year	30,289	135,554		165,843	160,036
End of year	<u>\$ 33,153</u>	<u>\$ 132,097</u>	<u>\$ -</u>	<u>\$ 165,250</u>	<u>\$ 165,843</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

SCNG Pension Trust Fund
Year Ended June 30, 2020

With summarized comparative totals for the year ended June 30, 2019
(Amounts expressed in thousands)

	2020 Total	2019 Total
Additions		
Contributions		
State appropriated	\$ 5,290	\$ 5,290
Total contributions	5,290	5,290
Investment income		
Net appreciation (depreciation)		
in fair value of investments	(769)	1,257
Interest and dividend income	613	635
Investment expense	(198)	(279)
Net Income (loss) from investing activities	(354)	1,613
From securities lending activities:		
Securities lending income	2	3
Net income from securities lending activities	2	3
Total net investment income (loss)	(352)	1,616
Total additions	4,938	6,906
Deductions		
Regular retirement benefits	4,514	4,534
Administrative expenses	15	16
Total deductions	4,529	4,550
Net increase in Net Position	409	2,356
Net Position Restricted for Pensions		
Beginning of year	30,683	28,327
End of year	\$ 31,092	\$ 30,683

South Carolina Retirement Systems Schedule of Administrative Expenses

Year Ended June 30, 2020
(Amounts expressed in thousands)

Personnel Services	
Salaries and Wages	\$ 9,024
Employee Benefits	3,595
Total Personnel Services	12,619
 Professional and Consultant Fees	
Information Technology	748
Medical and Health Services	259
Financial Audit	175
Actuarial Services	271
Management Professional Services	744
Legal Services	20
Total Professional and Consultant Fees	2,217
 Operating Expenses	
Facilities Management	206
Building Rent	116
Software Licenses and Programs	683
Furniture and Equipment - Expensed	38
Communications and Utilities	123
Insurance	240
Postage	226
Supplies	139
Miscellaneous Expenses	34
Total Operating Expenses	1,805
Total Administrative Expenses	\$ 16,641
 Allocation of Administrative Expenses	
SCRS	\$ 14,072
PORS	2,451
GARS	18
JSRS	85
SCNG	15
Total Administrative Expenses	\$ 16,641

South Carolina Retirement Systems

Schedule of Professional and Consultant Fees¹

Year Ended June 30, 2020
(Amounts expressed in thousands)

Professional / Consultant Type	Nature of Service Provided	Amounts Paid
CliftonLarsonAllen	Audit and Consulting Services	\$ 175
Find Great People	Personnel Services	30
Funston Advisory Services	Fiduciary Audit	157
Gabriel Roeder Smith & Company	Actuarial and Consulting Services	271
Ice Miller	IRC Consulting Services and Compliance Review	17
ICON Integration & Design	Data Conversion and Bridging Services	184
Linea Solutions	Client Services Vendor to Facilitate and Support Program Activities	201
NWN Corporation	IT Installation Services	122
Roper Personnel Services	Personnel Services	47
Segal Consulting	Investment Consulting Services for State ORP and Deferred Compensation	117
SunGard Availability Services	IT Disaster Recovery	145
Tapfin	Application Development Resources	465
USC Department of Internal Medicine	Disability Review	27
Vocational Rehabilitation	Disability Review	232
Soteria	Cyber Security Consulting Services	13
Aggregate of payees less than \$10,000 each	Professional and Consulting Services	14
Total Professional and Consultant Fees		\$ 2,217

¹ A Schedule of Investment Managers and Fees can be found in the Investment Section of the CAFR.

South Carolina Retirement Systems

Schedule of Investment Fees and Expenses

Year Ended June 30, 2020
(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTALS ¹
Short Term	\$ 590	\$ 106	\$ 1	\$ 3	\$ 1	\$ 701
Fixed Income:						
Core Fixed Income	1,496	268	2	9	1	1,776
High Yield/Bank Loans	6,049	1,084	7	37	6	7,183
Emerging Market Debt	3,821	685	5	23	4	4,538
Global Public Equity	20,558	3,683	25	124	21	24,411
Equity Options Strategy	2,911	521	3	18	3	3,456
Public Real Estate	1,218	218	1	7	1	1,445
Public Infrastructure	2,604	467	3	16	3	3,093
Opportunistic/GTAA	7,348	1,320	9	45	7	8,729
Beta Overlay	1,205	216	2	7	1	1,431
Alternatives:						
Hedge Funds	76,442	13,738	92	463	78	90,813
Private Debt	15,603	2,797	19	94	16	18,529
Private Equity	18,618	3,309	22	111	19	22,079
Private Real Estate	18,705	3,328	22	112	19	22,186
Private Infrastructure	4,754	853	5	29	5	5,646
Strategic Partnerships ²	1,300	234	1	8	1	1,544
Total Investment Manager Fees	<u>183,222</u>	<u>32,827</u>	<u>219</u>	<u>1,106</u>	<u>186</u>	<u>217,560</u>
Bank Fees and Investment Expenses³	<u>11,656</u>	<u>2,063</u>	<u>14</u>	<u>69</u>	<u>12</u>	<u>13,814</u>
Total Investment Expenses	<u>194,878</u>	<u>34,890</u>	<u>233</u>	<u>1,175</u>	<u>198</u>	<u>231,374</u>
Securities Lending Expenses:						
Borrower Rebates	\$ (149)	\$ (27)	\$ -	\$ (1)	\$ -	\$ (177)
Total Securities Lending Expenses	<u>\$ (149)</u>	<u>\$ (27)</u>	<u>\$ -</u>	<u>\$ (1)</u>	<u>\$ -</u>	<u>\$ (177)</u>

¹ All investment manager fees, whether directly invoiced (\$39,264) or deducted from the fund on a net basis (\$178,296) are classified and reported as Investment Expense. Investment expenses include amounts for investment management fees, performance fees (including carried interest allocations), other expenses such as organizational expenses in limited partnership structures as well as offsets which may have the effect of reducing the total.

² Represents management and other fees at the Strategic Partnership level, not fees at the underlying investment level included in each applicable asset class.

³ Includes miscellaneous investment expenses, commissions on futures, bank fees and RSIC administrative expenses.

This page contains no other content



Investment



MEMORANDUM

To: The Honorable Henry McMaster, Governor
State Fiscal Accountability Authority
Members of the General Assembly

From: Meketa Investment Group

Date: October 16, 2020

Re: Fiscal Year Ending June 30, 2020 Review

As the general investment consultant for the Retirement System Investment Commission (RSIC) of South Carolina, Meketa Investment Group is pleased to present this summary of the fiscal year events and investment performance of the South Carolina Retirement System (SCRS) investment portfolio for the fiscal year ending June 30, 2020.

FISCAL 2020 MARKET ENVIRONMENT REVIEW

The past year has seen remarkable shifts in economic and financial market performance. We entered fiscal year 2020 facing considerable uncertainty regarding the path of fiscal and monetary policies, elevated valuations, declining growth in China, a general slowdown in global growth, the potential for additional trade issues, and political uncertainty in Europe (Italy, Greece, Brexit). All of these concerns weighed heavily on most investors' minds. Fast forward to where we sit today at the close of the 2020 fiscal year and much has changed in the world.

The start of the fiscal year was characterized by widespread concerns regarding slowing global growth. This backdrop of uncertainty prompted major central banks to continue their pivot towards more accommodative policies. Here in the US, ongoing concerns regarding a decline in growth and the trade standoff between the US and China played a key role in the Federal Reserve's decision to cut rates several times, and eventually settle at a range of 1.50-1.75% by December 2019. Considering that the Fed had previously embarked on what was characterized as a fairly aggressive rate-hiking cycle until late 2018 given improvements in the economy, this represented a stark reversal of course. Fed Chairman Jerome Powell indicated that these so called "insurance cuts" were to combat recent weakness in the economy and were not necessarily a part of a longer cycle of interest rate cuts.

Outside of the US, major central banks, notably the European Central Bank (ECB) and the Bank of Japan, affirmed similar accommodative policy stances. ECB President Mario Draghi, in one of his last formal acts as President, re-initiated the ECB's quantitative easing program, prior to being succeeded by Christine Lagarde in November 2019. Continued monetary accommodation, and increasing whispers of more formal fiscal support, set the stage for strong performance in global equities and other risk assets at the end of 2019.

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In the third calendar quarter of 2019 markets experienced mixed results with US stocks and bonds posting gains, while international assets, smaller company stocks, and commodities declined. The calendar year finished strong though as a result of broadly accommodative policy stances, coupled with optimism about the pass-through of easier monetary policy to better economic prospects. US equities led the way in the second half of calendar 2019, with the Russell 3000 posting a return of 10.4%, followed by emerging market equities (MSCI Emerging Markets Index) producing a return of 7.1%, and developed international markets (MSCI EAFE) generating a return of 7.0%. With interest rates declining towards multi-decade lows, spread sectors within bond markets enjoyed strong performance as well. Local currency emerging markets debt, US investment grade corporate debt, and US high yield debt led the way; the JP Morgan GBI-EM Global Diversified, Bloomberg Barclays US Corporate Investment Grade, and Bloomberg Barclays US Corporate High Yield indices generated total returns of 4.4%, 4.3%, and 4.0%, respectively in the second half of 2019. The VIX Index (a measure of volatility expectations), which saw a jump in Q4 2019 above 30.0 before ending the year at 25.4, fell markedly as the year came to a close, ending 2019 at an extremely benign level of 13.8. Gold ended the year with a reasonably strong gain, trading at \$1,519.50 at the end of 2019, up from \$1,278.30 at the end of 2018. WTI Crude ended 2019 at \$61.10, an increase from its year-end 2018 level of \$45.15.

By most accounts, global financial markets entered calendar 2020 on relatively strong footing. Equity markets continued their march higher early in the year, despite elevated valuations, as investors increasingly began to price in a reflationary growth impulse, as suggested by leading economic indicators in global developed and emerging markets. However, a relatively optimistic backdrop underwent a remarkably rapid shift over the course of just a few weeks.

In January, the first COVID-19 case was acknowledged by Chinese authorities, reportedly originating in Wuhan, China. The actual timeline of the spread of the virus and its origination continue to be the subject of much speculation. With limited historical precedent, market participants leaned on China's relative success in containing SARS as indicative of the path of COVID-19. By March, the virus began to spread globally, particularly in Europe, with Italy and Spain reporting massive spikes in infections and, sadly, mortality rates, and markets changed course. Clearly, where SARS was quickly contained, COVID-19's infection rate had exploded globally. By virtue of greater freedom of travel and 21st century globalization, the virus spread far more quickly than was initially expected based on previous viral outbreaks. In March, in an effort to contain the spread, countries responded by enacting stringent lockdowns, or "stay at home orders" leading to an abrupt halt in production and consumption. Layoffs expanded dramatically and swiftly, as businesses were forced to close down in an effort to stop the disease from spreading.

The impact on financial markets was extreme. Global equity markets rapidly entered bear market territory, and continued their path downward throughout the month of March, as market participants attempted to price in the impact of a cessation of a large portion of global economic activity. With limited data on COVID-19, the pendulum clearly swung towards pessimism regarding the virus' impact and the likely path of

activity going forward. After ending the year 2019 below 14, the VIX spiked above its prior peak during the Global Financial Crisis, briefly breaching 80 in early March. In the US, circuit breakers were triggered at the New York Stock Exchange, with markets opening limit down, on March 9th and March 16th. At the depth of the drawdown from January 1, 2020 to March 23, 2020, the Russell 3000 was down -31.6%, the MSCI EAFE Index (developed market equities) was down -33.2%, and the MSCI Emerging Markets Index (emerging market equities) was down -31.8%. The perception of acute stress in credit markets, both in the US and abroad, led to solvency fears; the Barclays High Yield index fell -19.8%. Investors universally fled risk assets, in all forms, during the selloff in favor of perceived safer assets like US Treasuries.

Over this same time period, the spread between large cap stocks, which went into the shock with stronger financial positions and have tended to experience less volatility in drawdowns, and small cap stocks, which are more pro-cyclical and volatile, widened during the selloff. Whereas the Russell 1000 fell by -31.1%, the Russell 2000 fell by -39.7%, a spread of nearly 10%. Going further, the ever-widening performance gap between growth and value, which we have highlighted in past CAFR reviews, persisted. The spread between large cap growth and small cap value expanded during the selloff, with the Russell 1000 Growth declining 25.1% and the Russell 2000 Value falling 44.3%, for a spread of nearly 20%.

The rapid unwind of risk in early 2020, one of the fastest market selloffs in modern financial history, reinforced the importance of diversification. While equity and credit markets fell precipitously, bonds provided an offset for investors. The Bloomberg Barclays US Aggregate generated a return of 1.0% over the course of the drawdown noted above, and long-term treasuries, measured by the Bloomberg Barclays Long US Government index, generated a return of 20.2%.

The volatility of the pandemic was exacerbated by volatility in oil prices, which experienced a rapid collapse early in 2020. The COVID-19 related restrictions weighed heavily on demand, with Saudi Arabia's untimely decision to flood the market with oil to gain market share creating further stress on prices. Oil futures briefly traded at negative price levels during the depths of the crisis, as demand collapsed and storage capacity dwindled. The May WTI futures contract briefly exchanged hands at nearly -\$40 per barrel. Commodity and natural resource asset classes both participated in the broader market selloff; the Bloomberg Commodity Index and the S&P Global Natural Resources Index were down -23.4% and -44.6% at the trough, respectively. While the futures curve has since normalized, the oil supply/demand dynamic remains in flux. OPEC+ (inclusive of additional key producers such as Russia) reached a supply cut agreement in April that supported prices and stabilized the market.

To combat the expected, significant decline in economic activity, fiscal and monetary authorities globally responded with immediate and historic stimulus measures. The Federal Reserve, in the midst of the March drawdown, immediately cut the Fed Funds Target Rate effectively to zero, and subsequently introduced aggressive stimulus measures, including backstop liquidity, funding programs, and trillions of dollars in promised asset purchases. Meanwhile, fiscal authorities released over \$2.4 trillion in

targeted stimulus, with the promise of additional measures in the future. Importantly, both the speed of the response, and the breadth of the response, made the joint monetary/fiscal stimulus unprecedented. In Japan and Europe, similarly aggressive monetary and fiscal measures were implemented, although it should be noted that they entered the crisis with no room to cut policy rates, so their focus was on quantitative easing and fiscal measures.

Robust stimulus across global developed and emerging economies, coupled with incremental positive news regarding the spread of COVID-19, and economies slowly reopening, set the stage for a relatively rapid rebound in risk assets in the second calendar quarter. While the pace of the deceleration in economic activity was rapid, and data for the second quarter has been relatively dire in absolute terms, market participants are largely taking a longer-term view with expectations for a recovery in economic activity later this year and into 2021. In the second calendar quarter of 2020, the Russell 3000 (US equities), the MSCI EAFE, (developed market equities), and the MSCI Emerging Markets (emerging market equities) generated total returns of 22.0%, 14.9%, and 18.1%, respectively. Given support from the Federal Reserve and increased risk appetite, credit recovered rapidly as well, with the Bloomberg Barclays US High Yield index generating a return of 10.2%. The broader fixed income market, as measured by the Bloomberg Barclays US Aggregate, benefitted from monetary stimulus, producing a 2.9% total return. While the VIX remained elevated relative to its pre-crisis levels at 30.4 as of June 2020, it had fallen significantly since the peak of the crisis in the first calendar quarter. Equally, bond market volatility as measured by the MOVE Index fell to nearly a record low.

An investor who had not been following current events over the past year and only chose to look at US equity market performance, could be forgiven for thinking that little had changed regarding the prevailing market regime. Despite a massive risk-off event in the first quarter of 2020 associated with a global pandemic, risk assets have, in some cases, posted moderately positive returns over the past fiscal year. US equities, as represented by the Russell 3000 Index, finished the fiscal year with a 6.5% return. Emerging markets (MSCI Emerging Markets) delivered -3.4% for the year. The MSCI EAFE Index was the worst performer among the headline global regions, posting a total return of -5.1%.

Several important trends underneath the headline results merit emphasis. In the US, the spread between large cap stocks and small cap stocks remains extremely wide. The Russell 1000 produced a total return of 7.5% over the fiscal year, whereas the Russell 2000 generated a total return of -6.6%. The spread between growth and value also remains stubbornly wide; the Russell 1000 Growth's return of 23.3% during the fiscal year far outpaced the Russell 1000 Value's total return of -8.8%. Key to the persistent spread between value and growth has been the sector composition of the Value and Growth indices. The Russell 1000 Value's large financials and utilities overweights, coupled with large information technology and consumer discretionary underweights, relative to the Russell 1000 Growth, were key contributors. The two benchmarks' relative allocations to financials and information technology alone generated a performance spread of 14.1% in favor of the growth index. An even starker contrast can be observed between large cap

growth (Russell 1000 Growth at 23.3%) and small cap value (Russell 2000 Value at -17.5%) where the total return spread was a massive 40.8%.

Within international developed markets, the MSCI EAFE opportunity set, of which Japan, the UK, and the Eurozone are featured most heavily, underperformed relative to the US and emerging markets. This can largely be attributed to the weak footing on which they entered the crisis to begin with, the robust spread of COVID-19, and the stringency of lockdowns in many of these economies. Within emerging markets, an extremely wide spread between countries that were able to manage the virus' spread and deployed aggressive countermeasures (e.g., China: 9.9% return) relative to countries facing already-dire economic circumstances (e.g., Brazil: -33.4%, Mexico: -25.2%, and South Africa: -24.9%) was relatively extreme. The same style regime observed in the US, with growth outperforming value, persisted in both developed and emerging international markets. Again, the relative performance of financials and information technology and consumer stocks were key drivers of the spread between growth and value indices.

Fixed income markets generated relatively strong results, due to a collapse in global yield curves coupled with a robust liquidity backstop from central banks. The Bloomberg Barclays US Aggregate produced a total return of 8.7% over the past year. High yield bonds retraced their earlier losses, with the Bloomberg Barclays US High Yield index finishing flat over the fiscal year. However, the standout performer within fixed income has been long maturity Treasuries, with the Bloomberg Barclays Long US Government index gaining an impressive 25.1% over the one year period ending June 30.

While equities, and especially large cap growth equities, as well as fixed income, produced relatively strong results despite the COVID-19 shock, we have seen mixed results from other asset classes. While energy prices recovered to some extent, with WTI Crude Oil trading at \$39.28 at the end of the fiscal year, the current level still represents a significant drawdown relative to even a year ago, when it traded at \$58.20. Natural resource stocks and commodities, on account of uncertainty regarding supply gluts, especially in the oil market, and the uncertainty regarding the recovery of demand, produced weak total returns. The S&P Global Natural Resources Index returned -16.8% while the Bloomberg Commodity Index returned -17.4%. One of the hardest hit asset classes in markets in 2020 has been real estate, where fears regarding utilization rates in commercial real estate have prevented the asset class from participating in the recovery to the same extent as other asset classes. The MSCI U.S. REIT Index returned -12.9%.

Elsewhere, an increasingly robust acceleration in money supply growth, widening fiscal deficits on account of unprecedented stimulus measures, and an environment of stagnating growth expectations manifesting in a collapse in real yields, resulted in a significant increase in demand for physical gold. Over the course of the fiscal year, the price of gold increased from \$1,409.40 per ounce to \$1,793.00, an increase of 27.2%. With investors increasingly fearing the potential ramifications of fiat currency devaluation as a result of monetary de-basement by the Federal Reserve and other global central banks, they have turned to gold as a potential hedge.

LOOKING FORWARD

Looking ahead, we acknowledge the wide breadth of new issues being presented by the pandemic, including: 1) economies opening up too soon from virus-related restrictions, and ultimately having to retract and “close down” again, 2) consumers permanently, or for an extended time, changing economic behaviors; 3) persistently high unemployment due to a significant number of companies not surviving the economic downturn; 4) virus-related fears negatively impacting the future of globalization, 5) an increase in sovereign debt risk due to the record issuance by governments; and 6) knock-on effects of unprecedented central bank intervention, including over-extended equity markets and the risk of unexpected inflation.

Globally, countries continue to tentatively ease their lockdown measures, as politicians face increasing pressure to get economic growth and employment back on track after a rapid and severe disruption. As a result, local outbreaks of the virus have arisen in the US and abroad, forcing local restrictive measures in harder-hit areas. The continued need for careful management of the spread of the virus is likely to prompt additional volatility in financial markets. This will only accelerate as we approach the end of the warm summer months in parts of the world and enter the traditional “flu season” of fall and winter. This brings many potential risks, including a spike in infections and hospitalizations, the mutation of the virus in an unfavorable manner, or even a concurrent outbreak and a severe flu season alongside COVID-19. Since market participants remain focused on developments regarding COVID-19, its trajectory will be a key driver of market volatility in the near-term.

We have already observed a rapid change in consumption preferences in the US in the wake of the initial COVID-19 shock. The US savings rate spiked to an unprecedented level, and remains elevated when compared to historical trends. This represents a potential opportunity, as it could represent pent-up demand and, eventually dissaving to increase consumption. However consumer confidence has not fully recovered, and without certainty regarding the path of the virus, survey data suggest that most in the US have chosen to build cash as a defense against further issues with COVID-19, rather than spend aggressively. Importantly, survey data also suggest that stimulus checks were not used for durable goods purchases, and instead were either saved or spent on necessary staples. Until consumers build more confidence in the path of COVID-19, the testing regime improves, and the outlook for a vaccine becomes less opaque, it is likely that consumer confidence, and thus consumption itself, will remain muted relative to pre-crisis levels, placing a damper on the prospective economic recovery.

Unemployment, despite a gradual re-opening of the US economy over the past quarter, remains stubbornly high after spiking to a post-World War II record. Unemployment as of the end of the fiscal year remained at 11.1%. The Bureau of Labor Statistics has also cautioned that considerable uncertainty exists around data quality; the actual numbers could be far better than reported, or far worse. A continued decline in unemployment from its current level will follow an easing of COVID-19 related restrictions, especially in

the hard-hit service sector, as well as additional fiscal support. Conversely, companies continue to right-size their workforces to cope with a collapse in their top-lines and increasing solvency risk. The longer that uncertainty regarding the virus persists and leads to measures that are likely to stifle economic activity, the weaker business confidence will continue to be. This increases the risk that many layoffs, which might have been perceived as temporary, could become permanent, resulting in a higher equilibrium rate of unemployment.

COVID-19 has had a meaningful impact on the already-tapering long-term trend towards globalization in the 21st century. In some cases, local trade conflicts have arisen and have been resolved, but the trend towards the re-localization of supply chains is likely to accelerate in the wake of the crisis. The most obvious example of this trend is the continued, protracted conflict between the US and China. While the conflict was set aside in the early stages of COVID-19, it has been rekindled in recent months. The current US presidential administration's foreign policy approach has increasingly shifted towards a more aggressive anti-China stance. COVID-19 also exposed the reliance of some countries on choke-points in global supply chains that they will undoubtedly seek to address going forward. Global policymakers, such as ECB President Christine Lagarde, have acknowledged that de-globalization is likely to persist in the wake of the virus, beyond the US/China conflict. The risk is most severe for countries that have become reliant on foreign investment and export-driven growth. If global economies increasingly focus on domestic products, export-oriented economies are likely to suffer inordinately in this type of environment.

Historically, crisis periods have often witnessed concurrent periods of either voluntary or involuntary deleveraging, at the sovereign, corporate, and consumer levels. In 2008, for example, the US experienced a rapid de-leveraging in the mortgage market that quickly spread to corporates and consumers. In 2020, while consumers entered the crisis in a reasonable financial position, corporates and sovereigns did not. In the US, for example, corporate solvency was a meaningful source of uncertainty even prior to the crisis, as debt built up in the US corporate debt market. With the COVID-19 shock, fears that an economic crisis would become a financial crisis, where in the GFC the opposite had been the case, gripped the markets in March. The Federal Reserve, seeking to prevent this outcome, chose to intervene by essentially backstopping corporate credit. As a result, corporate leverage has rapidly *increased*, where the opposite was true in previous cycles. Alongside this trend, the US government has massively increased the size of the fiscal deficit in order to support those facing temporary income loss due to unemployment. Suddenly, the US faces the need to finance a widening budget deficit; a large slate of debt issuance will test global investors' willingness to finance a weakening US fiscal position, which could have considerable knock-on effects for interest rates and thus global risk assets. The US, within both the corporate and sovereign sector, continues to push the boundary of investors' appetite for debt.

The evolution of economic growth, and inflation, bear close monitoring going forward. In addition to widening deficits, unprecedented asset purchases by central banks run the risk of creating longer-term distortions in markets. There can be little doubt that the Federal Reserve's actions have boosted market confidence, and thus asset prices, in recent

months. While they execute these policies in the hope of creating a virtuous feedback loop in order to stimulate growth, the pass through is indirect, at best. The Fed is increasingly facing a tightrope walk, backstopping market risk while trying not to lose the market's confidence in its ability to do so with an increasingly narrow set of policy tools. Given that interest rates are probably near a lower bound, at least for now, that leaves them with quantitative easing, which might increasingly become permanent rather than temporary. As evidenced by the path of nominal interest rates across the yield curve, growth expectations remain incredibly weak, while inflation expectations have begun to tick higher, resulting in a collapse in real interest rates. In addition, the Fed has increasingly signaled that it is likely to revise its inflation target, in the interest of allowing inflation to "run hot" in order to focus on achieving growth and full employment, with the added benefit of reducing the US sovereign debt burden. The potential for unexpected inflation within this regime means that asset allocation care is warranted; assets with low yields, like US Treasuries, could experience diminished long-term return prospects, requiring shifts in allocation decisions.

SCRS INVESTMENT RESULTS¹

As of June 30, 2020, the SCRS investment portfolio totaled \$30.98 billion. This represented a decrease of approximately \$1 billion from June 30, 2019. SCRS generated a net return of -1.6%, underperforming the 0.1% return of its Policy Index. Over longer trailing periods, SCRS is modestly outperforming its Policy Index. For example, the ten-year trailing net return for SCRS as of June 30, 2020 was 6.7% vs. a Policy Benchmark return of 6.6%.

The portfolio's asset allocation as of fiscal year-end is provided in the following table. All investments were consistent with the targets and ranges set forth in the Annual Investment Plan and in the Statement of Investment Objectives and Policy.

¹ SCRS returns are from BNY Mellon and are time-weighted, total return calculations, net of fees and expenses.

Asset Class	% of Total System as of June 30, 2020	Target Allocation
Equities	52.8	51.0
Global Equity	43.5	37.0
Private Equity	7.0	7.0
Equity Options	2.3	7.0
Rate Sensitive	16.5	14.0
Cash and Short Duration	0.2	1.0
Core Fixed Income	16.3	13.0
Credit	15.9	15.0
Mixed Credit	4.6	3.6
Private Debt	7.4	7.4
Emerging Markets Debt	3.9	4.0
Opportunistic	2.3	8.0
GTAA	1.6	7.0
Other Opportunistic	0.7	1.0
Real Assets	12.5	12.0
Private Real Estate	8.2	8.2
Public Real Estate	1.6	0.8
Private Infrastructure	1.1	1.1
Public Infrastructure	1.6	1.9
Total	100.0	100.0
Hedge Funds PA	10.0	10.0

Respectfully submitted,



Alli Wallace Stone, CFA
 Consultant, Principal
 Meketa Investment Group

The investment performance information provided in the Investment Section of the *Comprehensive Annual Financial Report* is provided by the Systems' custodian, BNY Mellon, and is independently calculated using a time weighted rate of return.

South Carolina Retirement System Summary of Investment Growth

(Amounts expressed in thousands)

Year Ended June 30,	Fair Value of Investments ¹	Fair Value % Increase/Decrease for Year	Net Income (Loss) from Investments	Net Income (Loss) % Increase/Decrease for Year
2020	\$ 27,189,583	0.78%	\$ (443,896)	(129.66%)
2019	26,979,601	1.17%	1,496,816	(24.60%)
2018	26,668,596	2.24%	1,985,255	(28.86%)
2017	26,083,511	6.13%	2,790,555	1,778.99%
2016	24,576,968	(4.39%)	(166,204)	(144.62%)
2015	25,707,561	0.65%	372,452	(89.41%)
2014	25,540,648	7.48%	3,515,834	59.84%
2013	23,762,666	7.50%	2,199,550	1,934.60%
2012	22,105,265	(4.85%)	108,107	(96.99%)
2011	23,232,653	17.26%	3,596,902	37.67%

Police Officers Retirement System Summary of Investment Growth

(Amounts expressed in thousands)

Year Ended June 30,	Fair Value of Investments ¹	Fair Value % Increase/Decrease for Year	Net Income (Loss) from Investments	Net Income (Loss) % Increase/Decrease for Year
2020	\$ 4,899,293	2.42%	\$ (79,519)	(130.14%)
2019	4,783,354	4.73%	263,872	(20.34%)
2018	4,567,249	5.73%	331,243	(27.33%)
2017	4,319,861	9.11%	455,806	1,940.52%
2016	3,959,326	(2.31%)	(24,765)	(142.38%)
2015	4,052,870	2.69%	58,440	(89.14%)
2014	3,946,522	9.44%	538,157	63.05%
2013	3,606,143	9.29%	330,061	1,839.14%
2012	3,299,647	(2.58%)	17,021	(96.72%)
2011	3,386,895	19.93%	519,363	43.25%

¹ Fair Value also includes investment categories classified as cash equivalents for financial statement purposes. Investments made with cash collateral received in the securities lending program are excluded.

General Assembly Retirement System Summary of Investment Growth

(Amounts expressed in thousands)

Year Ended June 30,	Fair Value of Investments ¹	Fair Value % Increase/Decrease for Year	Net Income (Loss) from Investments	Net Income (Loss) % Increase/Decrease for Year
2020	\$ 35,671	3.18%	(446)	(123.67%)
2019	34,569	3.31%	1,884	(20.64%)
2018	33,463	3.95%	2,374	(28.67%)
2017	32,192	4.37%	3,328	1,346.44%
2016	30,845	(6.89%)	(267)	(153.61%)
2015	33,129	(1.61%)	498	(89.04%)
2014	33,671	3.56%	4,543	45.75%
2013	32,515	2.11%	3,117	1,733.53%
2012	31,843	(10.27%)	170	(97.01%)
2011	35,488	8.65%	5,680	22.36%

Judges and Solicitors Retirement System Summary of Investment Growth

(Amounts expressed in thousands)

Year Ended June 30,	Fair Value of Investments ¹	Fair Value % Increase/Decrease for Year	Net Income (Loss) from Investments	Net Income (Loss) % Increase/Decrease for Year
2020	\$ 170,343	3.30%	\$ (2,375)	(125.91%)
2019	164,909	2.84%	9,168	(21.73%)
2018	160,361	4.15%	11,713	(28.56%)
2017	153,976	7.03%	16,395	1,971.58%
2016	143,863	(3.62%)	(876)	(139.71%)
2015	149,265	2.20%	2,206	(88.94%)
2014	146,095	8.25%	19,954	58.03%
2013	134,963	7.75%	12,627	1,527.19%
2012	125,255	(3.91%)	776	(96.14%)
2011	130,357	17.65%	20,086	37.14%

¹Fair Value also includes investment categories classified as cash equivalents for financial statement purposes. Investments made with cash collateral received in the securities lending program are excluded.

South Carolina National Guard Supplemental Retirement Plan Summary of Investment Growth

(Amounts expressed in thousands)

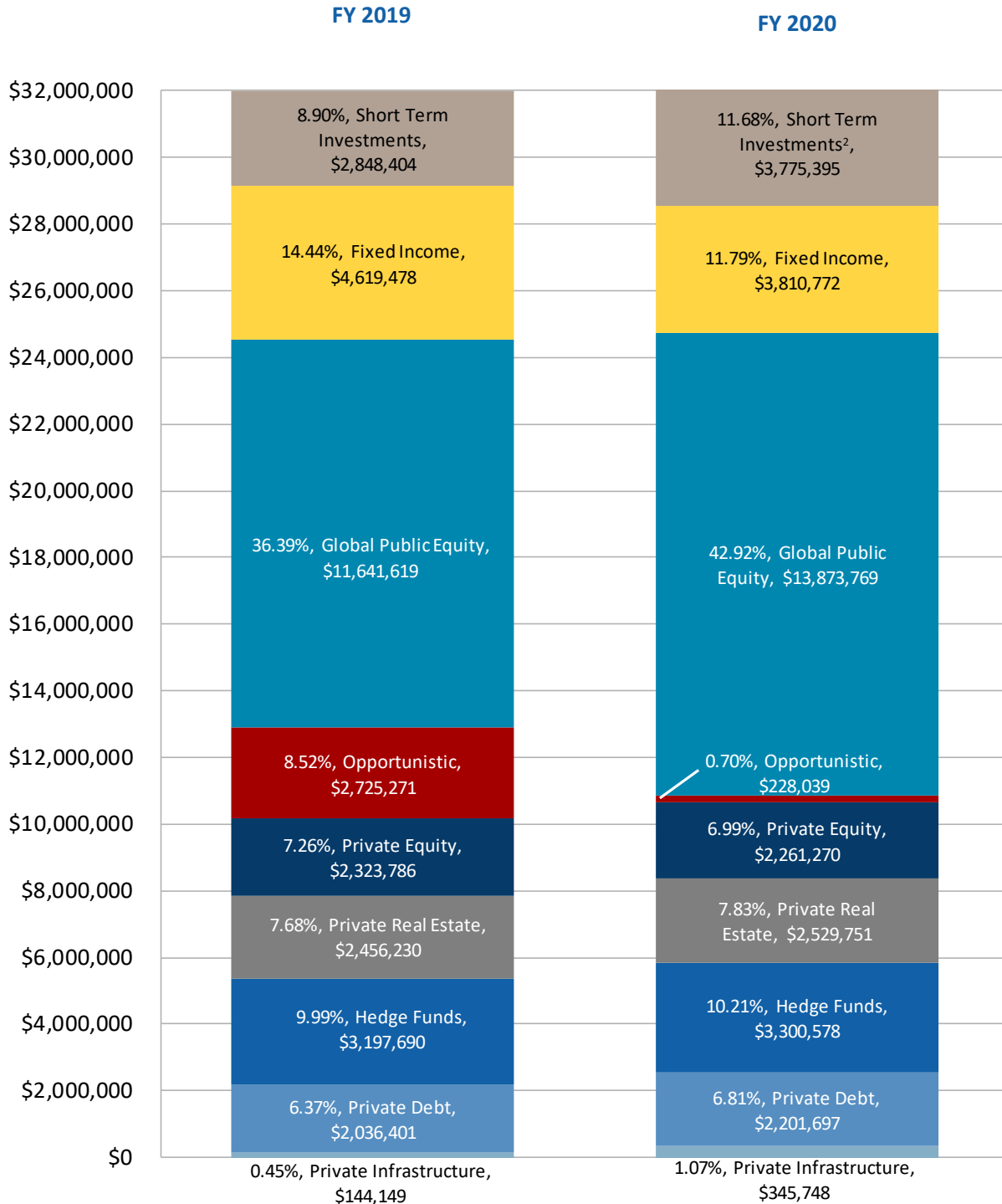
Year Ended June 30,	Fair Value of Investments ¹	Fair Value % Increase/Decrease for Year	Net Income (Loss) from Investments	Net Income (Loss) % Increase/Decrease for Year
2020	\$ 32,129	5.01%	\$ (354)	(125.91%)
2019	30,595	7.63%	1,613	(15.11%)
2018	28,425	7.67%	1,900	(24.99%)
2017	26,400	10.55%	2,533	2,176.23%
2016	23,880	0.75%	(122)	(139.10%)
2015	23,701	5.73%	312	(88.87%)
2014	22,417	12.63%	2,805	67.46%
2013	19,904	12.69%	1,675	1,701.08%
2012	17,662	(1.13%)	93	(96.33%)
2011	17,864	19.04%	2,531	35.71%

¹Fair Value also includes investment categories classified as cash equivalents for financial statement purposes. Investments made with cash collateral received in the securities lending program are excluded.

South Carolina Retirement Systems

Schedule of Investment Allocation¹

Fair Value of Investments as of June 30, 2020
(Dollar amounts in thousands)



¹ Data provided in this chart is derived from the Statement of Fiduciary Net Position and for financial statement purposes, allocations are made based on the manager's style. Actual underlying holdings would result in a different allocation.

² Short-term investments with an original maturity of three months or less are classified as cash equivalents for financial statement purposes. The short-term total includes cash of \$446,419 (in thousands). Investments made with cash collateral received in the securities lending program are excluded.

South Carolina Retirement System

Summary of Fair Value of Investments¹

(Amounts expressed in thousands)

	Fair Value		% of Fair Value at 06/30/20
	06/30/2019	06/30/2020	
Short-Term Investments	\$ 2,377,612	\$ 3,156,278	11.61%
Debt:			
Fixed Income	3,899,462	3,207,714	11.80%
Public Equity:			
Global Public Equity	9,827,095	11,678,233	42.95%
Opportunistic/GTAA	2,300,496	191,951	0.70%
Alternatives:			
Hedge Funds	2,699,281	2,778,259	10.22%
Private Debt	1,718,997	1,853,277	6.82%
Private Equity	1,961,588	1,903,422	7.00%
Private Real Estate	2,073,389	2,129,416	7.83%
Private Infrastructure	121,681	291,033	1.07%
Total Investments	<u>\$ 26,979,601</u>	<u>\$ 27,189,583</u>	<u>100.00%</u>

Police Officers Retirement System

Summary of Fair Value of Investments¹

(Amounts expressed in thousands)

	Fair Value		% of Fair Value at 06/30/20
	06/30/2019	06/30/2020	
Short-Term Investments	\$ 440,577	\$ 579,898	11.84%
Debt:			
Fixed Income	688,338	576,508	11.77%
Public Equity:			
Global Public Equity	1,734,692	2,098,875	42.84%
Opportunistic/GTAA	406,087	34,499	0.70%
Alternatives:			
Hedge Funds	476,481	499,323	10.19%
Private Debt	303,440	333,081	6.80%
Private Equity	346,262	342,093	6.98%
Private Real Estate	365,998	382,710	7.81%
Private Infrastructure	21,479	52,306	1.07%
Total Investments	<u>\$ 4,783,354</u>	<u>\$ 4,899,293</u>	<u>100.00%</u>

¹ Fair Value excludes investments made with cash collateral received in the securities lending program. Assets of the Systems are pooled for investment purposes; however, percentages vary slightly between systems due to cash flow differences, which primarily impact the short-term investment category.

General Assembly Retirement System Summary of Fair Value of Investments¹

(Amounts expressed in thousands)

	Fair Value		% of Fair Value at 06/30/20
	06/30/2019	06/30/2020	
Short-Term Investments	\$ 5,541	\$ 6,779	19.00%
Debt:			
Fixed Income	4,601	3,856	10.81%
Public Equity:			
Global Public Equity	11,595	14,039	39.36%
Opportunistic/GTAA	2,714	231	0.65%
Alternatives:			
Hedge Funds	3,185	3,340	9.36%
Private Debt	2,028	2,228	6.25%
Private Equity	2,315	2,288	6.41%
Private Real Estate	2,446	2,560	7.18%
Private Infrastructure	144	350	0.98%
Total Investments	<u>\$ 34,569</u>	<u>\$ 35,671</u>	<u>100.00%</u>

Judges and Solicitors Retirement System Summary of Fair Value of Investments¹

(Amounts expressed in thousands)

	Fair Value		% of Fair Value at 06/30/20
	06/30/2019	06/30/2020	
Short-Term Investments	\$ 18,658	\$ 24,775	14.55%
Debt:			
Fixed Income	23,181	19,429	11.41%
Public Equity:			
Global Public Equity	58,419	70,734	41.52%
Opportunistic/GTAA	13,676	1,163	0.68%
Alternatives:			
Hedge Funds	16,046	16,827	9.88%
Private Debt	10,219	11,225	6.59%
Private Equity	11,661	11,529	6.77%
Private Real Estate	12,326	12,898	7.57%
Private Infrastructure	723	1,763	1.03%
Total Investments	<u>\$ 164,909</u>	<u>\$ 170,343</u>	<u>100.00%</u>

¹ Fair Value excludes investments made with cash collateral received in the securities lending program. Assets of the Systems are pooled for investment purposes; however, percentages vary slightly between systems due to cash flow differences, which primarily impact the short-term investment category.

South Carolina National Guard Supplemental Retirement Plan Summary of Fair Value of Investments¹

(Amounts expressed in thousands)

	Fair Value		% of Fair Value at 06/30/20
	06/30/2019	06/30/2020	
Short-Term Investments	\$ 6,016	\$ 7,665	23.86%
Debt:			
Fixed Income	3,896	3,265	10.16%
Public Equity:			
Global Public Equity	9,818	11,888	37.00%
Opportunistic/GTAA	2,298	195	0.61%
Alternatives:			
Hedge Funds	2,697	2,828	8.80%
Private Debt	1,717	1,886	5.87%
Private Equity	1,960	1,938	6.03%
Private Real Estate	2,071	2,168	6.75%
Private Infrastructure	122	296	0.92%
Total Investments	<u>\$ 30,595</u>	<u>\$ 32,129</u>	<u>100.00%</u>

¹ Fair Value excludes investments made with cash collateral received in the securities lending program. Assets of the Systems are pooled for investment purposes; however, percentages vary slightly between systems due to cash flow differences, which primarily impact the short-term investment category.

South Carolina Retirement Systems

List of Largest Assets Held

As of June 30, 2020

Index Fund Holdings

Units	Description	SCRS	PORS	GARS	JSRS	SCNG	Fair Value
162,151,822	Blackrock MSCI World Index Fund	4,517,741,286	811,952,597	5,431,182	27,363,545	4,598,706	\$ 5,367,087,317
32,585,768	State Street Daily MSCI USA Index NL Fund	1,221,415,285	219,519,280	1,468,373	7,398,001	1,243,305	1,451,044,243
66,247,147	Blackrock MSCI U. S. Equity Index Fund	1,096,833,379	197,128,754	1,318,602	6,643,419	1,116,490	1,303,040,645
15,223,381	Blackrock MSCI Emerging Markets Free	\$ 632,809,502	\$ 113,731,904	\$ 760,757	\$ 3,832,869	644,150	751,779,183
27,379,158	State Street MSCI Emerging Mkts Index SL CTF	632,784,545	113,727,419	760,727	3,832,718	644,125	751,749,534
7,394,040	State Street MSCI EAFE Index NL Fund (FD12)	587,949,523	105,669,429	706,827	3,561,156	598,486	698,485,422
38,363,848	Blackrock MSCI EAFE Small Cap Equity Index Fd	502,500,466	90,312,068	604,101	3,043,599	511,506	596,971,741
14,598,133	Blackrock Emerging Markets Small Cap Equity	138,955,092	24,973,751	167,050	841,638	141,445	165,078,977
742,488	State Street MSCI CAD Index NL Fund (CA12)	58,503,332	10,514,531	70,332	354,349	59,552	69,502,097
4,348,663	Blackrock MSCI CA Small Cap Equity Index Fund	45,832,015	8,237,175	55,099	277,600	46,653	54,448,542
	Total						\$ 11,209,187,700

Top Ten Equity Holdings

Units	Description	SCRS	PORS	GARS	JSRS	SCNG	Fair Value
8,811,245	Owl Rock Capital Corp	\$ 91,449,861	\$ 16,435,858	\$ 109,940	\$ 553,903	\$ 93,089	\$ 108,642,651
65,250	Equinix Inc	38,573,219	6,932,585	46,372	233,634	39,265	45,825,075
261,922	Crown Castle International Corp	36,896,095	6,631,163	44,356	223,476	37,557	43,832,648
140,455	SBA Communications Corp	35,222,450	6,330,367	42,344	213,339	35,854	41,844,354
155,771	American Tower Corp	33,899,793	6,092,652	40,754	205,328	34,507	40,273,034
400,500	Prologis Inc	31,463,461	5,654,781	37,825	190,571	32,027	37,378,666
817,993	TC Energy Corp	29,321,296	5,269,780	35,250	177,596	29,847	34,833,769
2,874,232	Transurban Group	23,536,973	4,230,191	28,296	142,561	23,959	27,961,979
229,534	Sempra Energy	22,650,014	4,070,782	27,230	137,189	23,056	26,908,270
2,188,097	National Grid PLC	22,511,854	4,045,951	27,064	136,352	22,915	26,744,135
	Total						\$ 434,244,582

Top Ten Fixed Income Holdings

Par Value	Description	SCRS	PORS	GARS	JSRS	SCNG	Fair Value
\$ 48,200,000	Commit to Purchase FNMA SF Mtg 3.00% due 09/01/2050	\$ 42,602,548	\$ 7,656,758	\$ 51,216	\$ 258,040	\$ 43,366	\$ 50,611,928
29,800,000	US Treasury Bond 2.50% due 02/15/2045	30,941,771	5,561,020	37,198	187,411	31,496	36,758,897
35,200,000	Commit to Purchase FNMA SF Mtg 2.50% due 08/01/2050	30,840,827	5,542,878	37,077	186,800	31,394	36,638,975
30,540,000	Commit to Purchase GNMA II Jumbos 4.50% due 07/20/2050	27,456,382	4,934,608	33,008	166,301	27,948	32,618,247
16,300,000	US Treasury Note 2.125% due 09/30/2024	14,811,704	2,662,039	17,806	89,713	15,077	17,596,339
16,100,000	Commit to Purchase FNMA SF Mtg 3.50% due 08/01/2050	14,248,606	2,560,836	17,130	86,303	14,504	16,927,378
15,900,000	Commit to Purchase FNMA SF Mtg 2.00% due 09/01/2050	13,639,175	2,451,305	16,397	82,611	13,884	16,203,372
14,100,000	Commit to Purchase FNMA SF Mtg 2.50% due 09/01/2050	12,327,862	2,215,629	14,820	74,669	12,549	14,645,529
14,542,100	GNMA GTD REMIC P/T 15-H09 AI Var Rate due 04/20/2065	12,260,630	2,203,546	14,740	74,262	12,480	14,565,658
16,167,090	Preferred Term Securities 144A Var Rate due 09/22/2037	11,636,743	2,091,418	13,990	70,483	11,845	13,824,478
	Total						\$ 250,390,801

Note: A complete list of portfolio holdings is available upon request.

South Carolina Retirement Systems

Schedule of Investment Results

Combined Investment Portfolio

Schedule of Investments	FYE 2020	3 Fiscal Years	5 Fiscal Years	10 Fiscal Years
South Carolina Plan Return (Net of Fees)¹	-1.58%	3.95%	4.59%	6.71%
South Carolina Policy Benchmark²	0.13%	4.59%	5.22%	6.63%
Global Public Equity³	0.68%	5.02%	5.63%	
<i>Global Public Equity Blend²</i>	0.84%	5.40%	6.05%	
Equity Options³	-1.63%	2.45%	n/a	
<i>Blended Equity Options BM²</i>	-9.22%	-0.34%	n/a	
Private Equity³	-6.75%	5.14%	6.77%	
<i>Private Equity Blend²</i>	-7.18%	5.86%	7.52%	
GTAA³	-5.49%	0.86%	2.29%	
<i>GTAA Benchmark Blend²</i>	0.89%	4.00%	4.97%	
Other Opportunistic	-22.45%	-2.09%	n/a	
<i>GTAA Benchmark Blend²</i>	0.89%	4.00%	n/a	
Core Fixed Income³	8.49%	5.28%	4.22%	
<i>Barclays US Aggregate Bond Index</i>	8.74%	5.32%	4.30%	
TIPS³	7.97%	n/a	n/a	
<i>Barclays US Treasury Inflation Notes</i>	8.28%	n/a	n/a	
Cash and Short Duration (Net)⁴	1.52%	1.68%	1.33%	
<i>ICE BofA Merrill Lynch 3-Month T-Bill</i>	1.63%	1.77%	1.19%	
High Yield Bonds/Bank Loans	-1.07%	2.60%	3.04%	
<i>High Yield Bonds/Bank Loans Blend²</i>	-1.00%	2.70%	4.06%	
Private Debt	-5.64%	1.52%	2.60%	
<i>S&P/LSTA Leveraged Loan + 150 Bps on a 3-month lag</i>	-7.66%	0.72%	2.64%	
Emerging Markets Debt³	-4.31%	0.70%	3.59%	
<i>Emerging Markets Debt Blend²</i>	-1.10%	2.43%	3.89%	
Private Real Estate³	3.43%	7.19%	8.51%	
<i>Private Real Estate Custom Benchmark²</i>	2.33%	5.83%	8.15%	
Public Real Estate	-7.88%	3.26%	n/a	
<i>FTSE NAREIT Equity REITs Index</i>	-13.04%	0.03%	n/a	
Public Infrastructure	-0.97%	4.70%	n/a	
Private Infrastructure	-1.82%	n/a	n/a	
<i>Dow Jones Brookfield Global Infrastructure Net Index</i>	-5.99%	2.78%	n/a	
Portable Alpha Hedge Funds⁵	-0.98%	1.35%	1.20%	
<i>Portable Alpha HF Blend</i>	2.50%	1.66%	0.92%	

¹ Plan returns are provided by BNY Mellon and are presented on a time-weighted calculation basis, net of fees. All returns are expressed in U.S. dollars. Periods greater than one year are annualized.

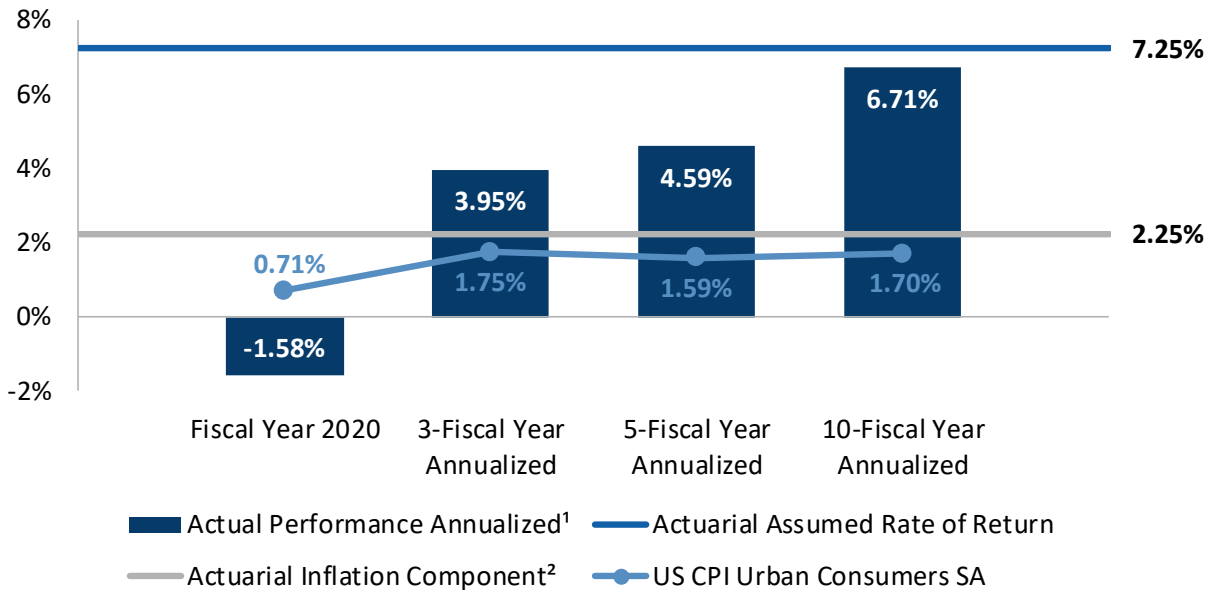
² The South Carolina Policy Benchmark is set annually by the Commission and has changed over time. The presented returns are a blend of these past policies.

³ Returns generated from synthetic exposure through the Overlay Program are blended into the asset class segment returns.

⁴ Cash returns are estimated using the ICE BofA Merrill Lynch 3-Month T-Bill.

⁵ Portable Alpha Hedge Funds are expressed as gross exposure but, as collateral supporting the Overlay Program, amounts net to zero when calculating total Plan market value. For benchmarking purposes, there is a 10% weight assigned to Portable Alpha Hedge Funds in the Policy benchmark. The five-year Portable Alpha Hedge Fund returns are considered supplemental information provided by RSIC staff to illustrate performance of these hedge funds even though they were classified under a different asset class during these periods. The cost of holding these assets is proxied using 3-month LIBOR and the performance presented is excess of LIBOR.

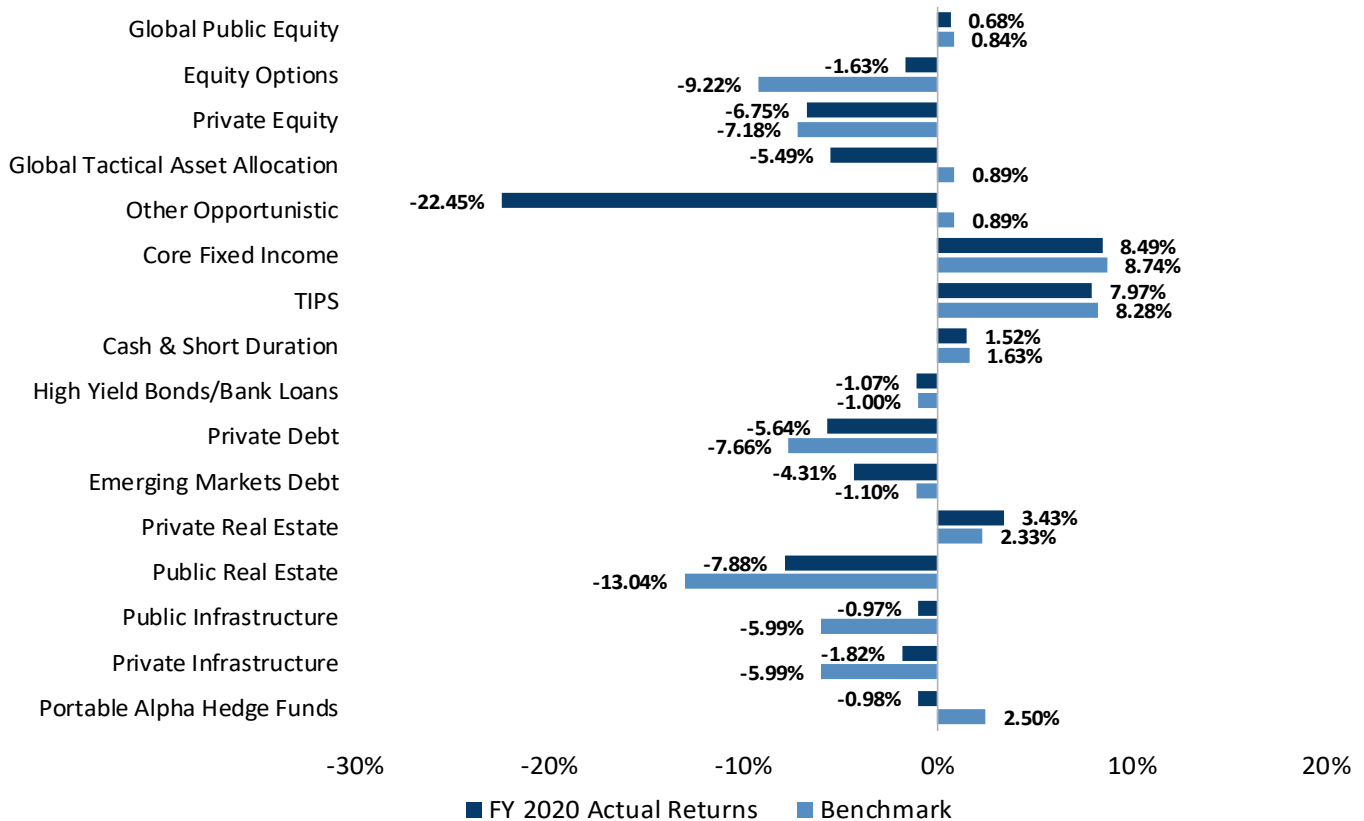
South Carolina Retirement Systems Investment Performance Summary



¹ Plan returns are provided by BNY Mellon and are presented on a time-weighted calculation basis, net of fees. All returns are expressed in U.S. dollars. Periods greater than one year are annualized.

² The actuarial assumed rate of return is net of investment expenses and was set at 7.50 percent for fiscal years July 1, 2011 through June 30, 2017, but reduced to 7.25 percent for fiscal year 2018. The rate was composed of 2.75 percent inflation and 4.75 percent real rate of return through fiscal year 2016; 2.25 percent inflation and 5.25 percent real return for fiscal year 2017; and 2.25 percent inflation and 5.00 percent real return beginning with fiscal year 2018.

Fiscal Year 2020 Investment Performance by Market Segment



South Carolina Retirement Systems Schedule of Investment Fees and Commissions

For the Year Ended June 30, 2020

	Fair Value of Assets Under Management at June 30, 2020 ¹	Reported Fees ²
Investment Managers' Fees	\$ 32,327,018,664	\$ 217,559,933
Other Investment Service Fees		
Bank Fees and Investment Expenses ³		13,813,601
		\$ 231,373,534

Brokerage Firm	Number of Shares Traded	Commissions ⁴	Average Commissions per Share
Goldman Sachs & Co.	63,717,160	826,461	0.0130
Instinet Europe Limited	103,397,396	493,555	0.0048
Jefferies & Company, Inc.	29,235,287	397,063	0.0136
Pershing LLC	32,882,787	379,510	0.0115
Merrill Lynch Pierce Fenner Smith Inc.	29,378,513	330,824	0.0113
Credit Suisse	121,338,166	299,527	0.0025
UBS Equities	47,142,182	172,494	0.0037
Morgan Stanley & Company, Inc.	33,526,990	155,976	0.0047
Liquidnet Inc.	9,880,574	127,311	0.0129
Citigroup Global Markets, Ltd	20,257,595	123,785	0.0061
UBS Securities LLC	15,094,924	106,945	0.0071
Barclays Capital	19,989,167	99,213	0.0050
Citigroup Global Markets, Inc.	4,486,049	94,128	0.0210
Stifel Nicolaus	3,309,586	89,814	0.0271
J.P. Morgan Securities LLC	5,349,777	81,461	0.0152
Convergex Execution Solution	1,894,406	74,552	0.0394
Macquarie Bank LTD	28,329,154	70,377	0.0025
J.P. Morgan Securities LTD	20,861,684	69,238	0.0033
ITG Canada Corp	9,240,789	68,941	0.0075
Wells Fargo Securities LLC	3,548,582	65,452	0.0184
Instinet Corp.	6,370,372	64,716	0.0102
ITG Inc.	4,068,672	64,260	0.0158
RBC Capital Markets LLC	3,670,742	63,892	0.0174
ISI Group Inc.	2,492,939	62,406	0.0250
Barclays Capital LE	1,616,960	60,893	0.0377
Raymond James & Associates, Inc.	1,819,032	53,015	0.0291
UBS Warburg Asia LTD	19,822,506	50,488	0.0025
All Others ⁵	516,137,372	1,387,358	0.0027
	1,158,859,363	\$ 5,933,657	0.0051

¹ Assets under management include categories classified as cash and cash equivalents for financial statement purposes.

² A portion of investment expenses are directly invoiced by the manager; however, a significant number of investment managers provide account valuations on a net of fee basis. The RSIC makes a good faith attempt to account for fees that are not necessarily readily separable. Through a process that consists of the collection, aggregation and reasonableness testing, the RSIC provides the Retirement Division of PEBA with investment fees and expenses that would not be disclosed otherwise. These amounts include management fees, performance fees (carried interest) and other expenses such as organizational expenses in limited partnership structures.

³ Includes miscellaneous investment expenses, commissions on futures, bank fees and RSIC administrative expenses.

⁴ Commissions paid to brokers are considered a part of the investment asset cost and are therefore not reported as expenses of the System.

⁵ All others include 154 additional brokers each receiving less than \$50,000 in total commissions.

South Carolina Retirement Systems

Schedule of Investment Managers and Fees

For the Year Ended June 30, 2020
(Amounts expressed in thousands)

Style	Investment Manager	Fair Value of Assets Under Management at 6/30/2020 ¹	Manager Fees Directly Invoiced	Manager Fees Deducted on a Net of Fee Basis ²			Total Investment Manager Fees
				Management Fees	Performance Fees	Other Fees	
Short Duration:							
	Blackrock Short Duration	\$ 205,786	\$ 13				\$ 13
	Penn Limited Term HY	209,279	688				688
Fixed Income:							
Core Fixed Income							
	Blackrock Core ³	(1)					
	Pacific Investment Management Co.	898,979	1,776				1,776
High Yield Bonds/Bank Loans							
	Barings U. S. High Yield ⁴		343				343
	Barings MultiSector	122,299	102				102
	Caspian SC Holdings LP ⁵	255,411		1,038	975		2,013
	Goldentree Structured Credit	572,282	2,441				2,441
	Guggenheim	483,883	1,548				1,548
	Pinebridge	38,003	736				736
Emerging Market Debt							
	Ashmore External Debt	302,644	1,217				1,217
	GMO Emerging Country Debt	294,858		1,432			1,432
	Mondrian Investment Group, Inc.	252,796	1,064				1,064
	Wellington Emerging Local Debt	367,931	825				825
Global Public Equity							
	Aberdeen ⁴		972				972
	Algert ⁶	(141)	1,180				1,180
	AQR	225	1,474				1,474
	Blackrock Global Equity	5,367,087	362				362
	Blackrock Emerging Markets Small Cap Equity Index	165,079	97				97
	Blackrock MSCI Emerging Markets Free	751,779	165				165
	Blackrock U. S. Equity	1,303,041	12				12
	Blackrock U. S. Small Cap	849,577	59				59
	Blackrock World ex U. S. Small Cap	651,430	6				6
	D. E. Shaw World Enhanced	174	3,203				3,203
	Intech	75	1,734				1,734
	Integrity Small V ⁴		1,103				1,103
	Lighthouse Partnership Developed International Equity ⁴			1,658		258	1,916
	LSV Asset Management	201,358		4,030			4,030
	Man Numeric International Small Cap	276	1,321				1,321
	Numeric Emerging Markets Equity	125,566	1,328				1,328
	Owl Rock Transition	108,643					
	Pyramis Small C ⁴		1,654				1,654
	Russell Global Transition	708					
	Russell International Small Cap	127	295				295
	Russell International Small Cap Passive Transition	3,540					
	Russell Small/Mid Cap Transition	23					
	Schroders ⁴		143				143
	State Street EME	751,750	37				37
	State Street Global Equity	2,219,032	173				173
	TimesSquare SMID G ⁴		1,281				1,281
	William Blair ⁴		1,866				1,866

Continued on Pages 124-127

South Carolina Retirement Systems

Schedule of Investment Managers and Fees (cont.)

For the Year Ended June 30, 2020

(Amounts expressed in thousands)

Style	Investment Manager	Fair Value of Assets Under Management at 6/30/2020 ¹	Manager Fees Directly Invoiced	Manager Fees Deducted on a Net of Fee Basis ²			Total Investment Manager Fees
				Management Fees	Performance Fees	Other Fees	
Equity Options Strategy							
	AQR Options	84,480	2,219				2,219
	Russell Options	613,691	1,237				1,237
Public Real Estate							
	CenterSquare U.S. Real Estate	49,900	233				233
	CenterSquare U.S. REIT Focus	431,132	1,165				1,165
	Russell Investment Group	7	47				47
Public Infrastructure							
	Deutsche Infrastructure	493,958	3,093				3,093
Other Opportunistic/Global Tactical Asset Allocation							
	Apollo Partnership Other Opportunistic	75,897				136	136
	EnTrust Partnership Other Opportunistic	62,086					
	Morgan Stanley GTAAN ⁴			2,720			2,720
	Pinebridge GTAAN ⁴			1,518			1,518
	Russell Investment Group	1	82				82
	Standard Life Investments Ltd.	3,845		1,867		2,033	3,900
	WLR Partnership	86,212		332		41	373
Beta Overlay							
	Russell Investment Group	1,167,242	1,431				1,431
Alternatives:							
Hedge Funds (Portable Alpha and Non-Portable Alpha)							
	Blackstone SAF II	972			193		193
	Bridgewater Associates, Inc.	415,504		11,206	3,612	479	15,297
	Bridgewater Associates, Inc. ⁴			2,409		122	2,531
	DE Shaw - DE Shaw Composite	751,553		17,156	37,776		54,932
	Goldman Sachs Partnership Hedge Funds	6,034					
	Grosvenor Partnership Hedge Funds	3,426					
	GSO Partnership Hedge Funds	19,791				126	126
	Lighthouse Partnership Hedge Funds	1,573,788		9,577	3,785	851	14,213
	Man Solutions Ltd	248,163	(334)	2,334			2,000
	Morgan Stanley Partnership Hedge Funds	25,470					
	Reservoir Strategic Partners Fund LP	465		1	124		125
	Wellington Management ⁴		1,396				1,396
Private Debt							
	Angelo Gordon VI	9			11	4	15
	Apollo Partnership Private Debt	452,218		3,064	523	1,847	5,434
	Ares Capital Management	246,514		3,250	1,186	738	5,174
	Avenue Spec VI	8,011				44	44
	Credit Opportunities Partners	82,151				126	126
	Crescent Mezz V	4,044		44	364	18	426
	Crescent Mezz VI	29,639		457	1,317	59	1,833
	Eagle Point Credit Partners ⁷	5,454					
	Eagle Point Credit Co-Invest I ⁷	5,000					
	Gateway Energy	5,040				269	269
	Goldman Sachs Mezz V	718		7	134	7	148
	Goldman Sachs Partnership Private Debt	112,892		1,208	(4,649)	465	(2,976)
	Goldentree Loan Management II	7,105		117		296	413

Continued on Pages 125-127

South Carolina Retirement Systems

Schedule of Investment Managers and Fees (cont.)

For the Year Ended June 30, 2020

(Amounts expressed in thousands)

Style	Investment Manager	Fair Value of Assets Under Management at 6/30/2020 ¹	Manager Fees Directly Invoiced	Manager Fees Deducted on a Net of Fee Basis ²			Total Investment Manager Fees
				Management Fees	Performance Fees	Other Fees	
	GSO Partnership Private Debt	257,613		1,664	(4,418)	1,764	(990)
	Highbridge Principal Strategies LLC	241,227		1,797	480	1,163	3,440
	Jocassee Partners	144,344				1,043	1,043
	KKR Special Situation Fund II	93,306		1,636		516	2,152
	KKR Lending Partners II	19,648		642	(4,602)	326	(3,634)
	KKR Lending Partners III	100,400		878		469	1,347
	Morgan Stanley Partnership Private Debt	276		1	49	(328)	(278)
	Northstar Mezz V	14,838		255	(1,618)	20	(1,343)
	Owl Rock Capital Corp.	67,013		1,811		606	2,417
	Owl Rock First Lien	97,808		1,637		418	2,055
	Owl Rock Technology Finance Corp	46,428		1,074	249	291	1,614
	Owl Rock Technology Holdings	11,466					
	Sankaty COP IV	6,570		196	(151)	41	86
	Sankaty COP V	18,941		323	(780)	36	(421)
	Selene II	28,625			(61)	295	234
	SJC DL II	162		13	(557)	62	(482)
	Strategic Credit Opportunities	87,385				406	406
	WL Ross - WLR Whole Loans	6,850			(73)	50	(23)
Private Equity							
	Apollo Partnership Private Equity	562,212		6,693	(6,462)	3,665	3,896
	Aquiline Financial Services I	39,425			(3,050)	29	(3,021)
	Aquiline Financial Services II	44,359		985	(8,372)	204	(7,183)
	Azalea III	3,852		210	(831)	41	(580)
	Azalea IV	10,718		265		14	279
	BCP V Co-Invest I	21,920		330			330
	BCP V Co-Invest II	14,187		236		171	407
	BCP V Co-Invest III	19,425				292	292
	Blackrock SLS ⁷	3,000					
	Bridgepoint Europe IV ⁸	10,472		99	(497)	51	(347)
	Bridgepoint Europe V ⁸	86,461		697		143	840
	Bridgepoint Europe VI ⁸	31,145		1,282		349	1,631
	Brighton Park Capital I	13,158		1,057		236	1,293
	Brookfield Capital IV	102,615		1,761	(487)	39	1,313
	Brookfield Capital V	45,363		2,190		80	2,270
	Carousel Capital IV	24,587		224	3,198	68	3,490
	CD&R VIII	14,718			(332)	118	(214)
	Crestview II	50,468		410	1,042	118	1,570
	Digital Colony	57,653		1,692		126	1,818
	Francisco Partners V	29,410		336	173	453	962
	GCM Edisto - GCM Direct	192,130		1,004		312	1,316
	GCM Edisto - RSIC Direct	152,380		142		316	458
	Hellman & Friedman	12,662		263		275	538
	Horsley Bridge G C LP ⁷	4,560					
	Horsley Bridge XIII	5,536		376		26	402
	Industry Ventures V	357		30	(1,429)	49	(1,350)
	Industry Ventures VI	8,679		108	109	62	279
	Industry Ventures VII	24,997		209	816	97	1,122
	Industry Ventures PHV	19,373		375	179	75	629

Continued on Pages 126-127

South Carolina Retirement Systems

Schedule of Investment Managers and Fees (cont.)

For the Year Ended June 30, 2020

(Amounts expressed in thousands)

Style	Investment Manager	Fair Value of Assets Under Management at 6/30/2020 ¹	Manager Fees Directly Invoiced	Manager Fees Deducted on a Net of Fee Basis ²			Total Investment Manager Fees
				Management Fees	Performance Fees	Other Fees	
	Morgan Stanley Partnership Private Equity	91,343		907	(3,184)	378	(1,899)
	Pacific Equity Partners V	26,705		1,347	(1,886)	370	(169)
	Pantheon USA VII ⁴			578			578
	Paul Capital IX	19,826		238		16	254
	Providence Equity Fund VIII	33,155		595		1,549	2,144
	Providence Strategic Growth Fund III	49,723		635		730	1,365
	Providence Strategic Growth Fund IV	4,253		1,500		758	2,258
	Reservoir Capital Partners (Cayman) L.P.	25,684		267	27	65	359
	TA Associates XIII	11,084		691		314	1,005
	Truebridge Capital II	86,198		320	266	123	709
	Valor Equity Partners V	10,825		174		202	376
	Warburg Pincus X	18,944		79	261	56	396
	WL Ross Partnership Private Equity	37,304					
	Various Private Equity Managers ⁹	240,404		2,276	(931)	918	2,263
Private Real Estate							
	Apollo Partnership Real Estate	44,977		620	(2,859)	460	(1,779)
	Asana Partners II	8,654		1,013		328	1,341
	Blackstone Property Partners	503,022		4,389	(271)	1,069	5,187
	Blackstone Real Estate Partners VII	56,539		748	(3,008)	129	(2,131)
	Blackstone Real Estate Partners IX	28,129		1,113	134	103	1,350
	Brookfield Real Estate Finance IV	3,101		68	(505)	15	(422)
	Brookfield Real Estate Finance V	46,381		607	492	476	1,575
	Brookfield SREP LP	37,517		437	(249)	105	293
	Brookfield SREP II LP	69,993		1,047	312	67	1,426
	Brookfield SREP III LP	36,940		1,438		165	1,603
	Carlyle VI	8,539		110	(358)	90	(158)
	Congaree Partners	11,287		201		240	441
	Crow Holdings VII	49,214		699	(1,561)	64	(798)
	Goldman Sachs Partnership Real Estate	(60)					
	Greystar IX	132,447		1,241		234	1,475
	Greystar X	22,270		1,196		255	1,451
	Heitman Capital Management	199,123		1,050		146	1,196
	Lone Star II	1,273		1	(149)	9	(139)
	Morgan Stanley Prime Property	797,335		6,528	1,070	805	8,403
	Morgan Stanley Partnership Real Estate	66,827		602	853	547	2,002
	Oaktree Real Estate Opportunities V	6,127		76	(104)	26	(2)
	Oaktree Real Estate Opportunities VI	26,260		424	(1,829)	375	(1,030)
	Sculptor	9,038	68		502	89	659
	TA Realty X	8,419		203	(86)	52	169
	TA Realty - SC LP	292,681		2,219	(918)	117	1,418
	Torchlight IV	12,187		172	(1,546)	158	(1,216)
	Torchlight V	27,637		532	(1,458)	311	(615)
	WL Ross Partnership Real Estate	23,892		255		232	487

Continued on Page 127

South Carolina Retirement Systems

Schedule of Investment Managers and Fees (cont.)

For the Year Ended June 30, 2020

(Amounts expressed in thousands)

Style	Investment Manager	Fair Value of Assets Under Management at 6/30/2020 ¹	Manager Fees Directly Invoiced	Manager Fees Deducted on a Net of Fee Basis ²			Total Investment Manager Fees
				Management Fees	Performance Fees	Other Fees	
Private Infrastructure							
	Actis Infrastructure	2,749		975		199	1,174
	Brookfield Infrastructure IV	31,939		1,328		105	1,433
	Brookfield Super Core	205,218		947	247	577	1,771
	Macquarie Super Core	105,842		789	299	180	1,268
Strategic Partnerships¹⁰							
	Apollo	7,051					
	Entrust	3,090					
	Goldman Sachs	1,979					
	Grosvenor	1,842					
	GSO	9,314					
	Lighthouse	292,089		1,122		1,013	2,135
	Morgan Stanley	12,752	(591)				(591)
	WL Ross	2,293					
Internally Managed Assets							
	Core Fixed Income	20,953					
	Cash Accounts	1,796,400					
	Residual Assets	25					
	Total Fair Value of Assets and Manager Fees	<u>\$ 32,103,366</u>	<u>\$ 39,264</u>	<u>\$ 140,083</u>	<u>\$ 1,487</u>	<u>\$ 36,726</u>	<u>\$ 217,560</u>
	Adjustments, Cash, Receivables and Payables	<u>(1,120,398)</u>					
	Net Asset Value as reported by the Custodial Bank	<u>\$ 30,982,968</u>					

¹ The "Fair Value" of assets under management includes categories classified as cash equivalents for financial statement purposes and excludes cash, receivables and payables; therefore, these adjustments are necessary to reconcile to "Net Asset Values" reported by the Custodial Bank and the RSIC.

² Investment manager fees, whether directly invoiced (\$39,263,638) or deducted from the fund on a net basis (\$178,296,295) are classified and reported as Investment Expense. The RSIC makes a good faith attempt to account for fees that are not necessarily readily separable. Through a process that consists of the collection, aggregation and reasonableness testing, RSIC provides the Retirement Division of PEBA with investment fees and expenses that would not be disclosed otherwise. These amounts include management fees, performance fees (carried interest) and other expenses such as organizational expenses in limited partnership structures.

³ Negative fair value represents FX loss on accrued dividend reclaims receivable.

⁴ Account liquidated during the fiscal year. Fees may not represent a full year.

⁵ This hedge fund is classified as a High Yield Bonds/Bank Loans mandate for investment purposes by RSIC due to it having higher factor or beta exposures to the asset class; however, for financial statement purposes it is classified as Hedge Funds.

⁶ Negative fair value represents FX loss on foreign currency.

⁷ Account has incurred initial funding but has not accrued fees and expenses.

⁸ Net asset value is reported gross of performance fees.

⁹ Represents the aggregation of twelve managers, each with total investment manager fees of less than \$250,000, and one manager that has a non-disclosure agreement.

¹⁰ Represents management and other fees at the Strategic Partnership level, and not fees at the underlying investment level which are included in each applicable asset class. Fair Value represents cash balances at the Strategic Partnership level.

This page contains no other content.

Actuarial



August 21, 2020

South Carolina Public Employee Benefit Authority
South Carolina Retirement Systems
P.O. Box 11960
Columbia, SC 29211-1960

Subject: Statement of Certification for the Actuarial Valuation as of July 1, 2019

Dear Members of the Board:

Actuarial valuations are prepared annually as of July 1, the first day of the plan year, for each of the five retirement systems (i.e. the South Carolina Retirement System, the Police Officers Retirement System, the Judges and Solicitors Retirement System, the General Assembly Retirement System, and the South Carolina National Guard Supplemental Retirement Plan). These reports describe the current actuarial condition of the South Carolina Retirement Systems and document the calculated employer contribution rates as well as the changes in these contribution rates.

FINANCING OBJECTIVES AND FUNDING POLICY

The employer and member contribution rates for the South Carolina Retirement System and the Police Officers Retirement System are determined in accordance with South Carolina Code, which first came into existence by the Retirement System Funding and Administration Act of 2017 and last amended by Act 135, which was enacted on May 18, 2020.

In accordance with the recently amended State Code, the employer and member contribution rates for the South Carolina Retirement System that was in effect for the fiscal year ending June 30, 2020 are 15.56% and 9.00%, respectively. In addition, this employer contribution rate will remain in effect for the fiscal year ending June 30, 2021 and is scheduled to increase at the rate of 1.00% of pay for each of the next three subsequent fiscal years (i.e. an ultimate employer contribution rate of 18.56% of pay for fiscal year 2024). Similarly, the employer and member contribution rate for the Police Officers Retirement System that was in effect for the fiscal year ending June 30, 2020 are 18.24% and 9.75%, respectively. Also, the employer contribution rate for the Police Officers Retirement System will remain in effect for the fiscal year ending June 30, 2021 and is scheduled to increase at the rate of 1.00% of pay for each of the next three subsequent fiscal years (i.e. an ultimate employer contribution rate of 21.24% of pay for fiscal year 2024).

Additionally, the State Code specifies that the maximum amortization period is 28 years as of July 1, 2019 and the maximum amortization period will decrease by one year in each of the next eight years

5605 North MacArthur Boulevard | Suite 870 | Irving, Texas 75038-2631

until reaching a maximum 20-year funding period on July 1, 2027 for both the South Carolina Retirement System and Police Officers Retirement System and the contribution rates determined by an actuarial valuation must be sufficient to maintain an amortization period that does not exceed 20 years each year thereafter. Finally, the Board is not permitted to decrease the employer and member contribution rates until the funded ratio of the plan is at least 85%.

The Board also certifies the employer contribution rates annually for the Judges and Solicitors Retirement System, the General Assembly Retirement System, and the South Carolina National Guard Supplemental Retirement Plan. The Board's principle objectives to determine the appropriate funding requirements for these systems include:

- Establish a contribution rate that remains relatively level over time.
- To set rates so that the measures of the System's funding progress, which include the unfunded actuarial accrued liability, funded ratio, and funding period, will be maintained or improved.
- To set a contribution rate that will result in the unfunded actuarial accrued liability (UAAL), which is the actuarial accrued liability less the actuarial value of assets, to be amortized over a period from the current valuation date over a reasonable time period.

To accomplish this, the employer contribution rate will be at least equal to the sum of the employer normal cost rate (which pays the current year's cost) and an amortization rate which results in the UAAL being funded over a period that does not exceed 28 years in installments from the current valuation date. These installments increase at the assumed rate of growth in payroll for Judges and Solicitors Retirement System.

If new legislation is enacted between the valuation date and the date the contribution rates become effective, the Board may adjust the calculated rates before certifying them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. In the absence of benefit improvements, assumption changes, or investment losses, it should increase over time, until it reaches at least 100%. However, due to the recognition of investment losses that occurred in prior years, the funded ratio decreased from 56.1% in 2018 to 55.4% in 2019 for all systems on a combined basis.

ASSUMPTIONS AND METHODS

The Board, in consultation with the actuary, sets the actuarial assumptions and methods used in the valuation. South Carolina State Code requires the Board to have the actuary perform an experience study at least every five years. The July 1, 2019 actuarial valuations were based on actuarial assumptions that were based on the System's experience for the five-year period ending July 1, 2015.



The experience study report, which included recommended assumption changes, was adopted by the Board in 2016. There were no assumption changes since the prior actuarial valuation.

All the assumptions and methods adopted by the Board satisfy the requirements in the Actuarial Standards of Practice that are applicable for actuarial valuations of public retirement systems. The Board plans to have the next experience study conducted using the plan's experience for the five-year period ending June 30, 2019. The actuarial assumptions that result from the experience study will be first used to prepare the July 1, 2020 actuarial valuation.

It is our opinion that the actuarial assumptions used to perform this valuation are internally consistent and reasonably reflect the anticipated future experience of the System. The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can, and almost certainly will, differ as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated employer contribution rate, and funding period. The actuarial calculations are intended to provide information for rational decision making.

The benefit structure is outlined in this section of the annual report. GRS prepared the following schedules in the actuarial section: *Actuarial Balance Sheet, Results of the Valuation as of July 1, 2019, Summary of Actuarial Assumptions and Methods, Development of the Actuarial Value of Assets, Solvency Test, Reconciliation of the UAAL*. GRS also prepared the following trend information in the actuarial section for years on and after July 1, 2011: *Summary of Historical Active Membership, Schedule of Retirants Added to and Removed from Rolls, and the Schedule of Funding Progress*.

South Carolina PEBA relied upon the data prepared by GRS and included in the actuarial valuations for each system to prepare the following schedules and graphs found in the actuarial section: *Summary of Active Membership Data, Summary of Membership Data and Funding Progress and Funding Ratios*. In addition, GRS prepared the following schedules in the financial section in accordance with GASB Statement No. 67: *Net Pension Liability Schedule, Discount Rate Sensitivity Analysis, Schedule of Changes in the Employers' Net Pension Liability, Schedule of Employers' Net Pension Liability, and the Schedule of Employers' and Nonemployer's Contributions*.

DATA

Member data for retired, active and inactive members was supplied as of July 1, 2019, by the PEBA staff. The staff also supplied asset information as of July 1, 2019. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. GRS is not responsible for the accuracy or completeness of the information provided to us by the Systems.



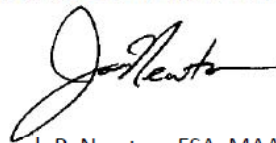
CERTIFICATION

We certify that the information presented herein is accurate and fairly portrays the actuarial position of the Retirement Systems as of July 1, 2019. All of our work conforms with generally accepted actuarial principles and practices, and in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of South Carolina Code of Laws and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

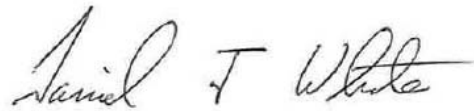
The undersigned are independent actuaries and consultants. Mr. Newton and Mr. White are Enrolled Actuaries and Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries. Both are experienced in performing valuations for large public retirement systems.

Sincerely,

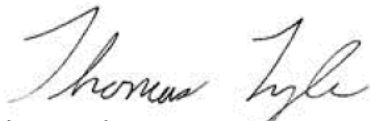
Gabriel, Roeder, Smith & Co.



Joseph P. Newton, FSA, MAAA, EA
Senior Consultant



Daniel J. White, FSA, MAAA, EA
Senior Consultant



Thomas Lyle, FSA, EA, MAAA
Consultant



South Carolina Retirement System

Actuarial Balance Sheet

(Amounts expressed in thousands)

	July 1, 2019	July 1, 2018
1. Assets		
a. Current assets (actuarial value)		
i. Employee annuity savings fund	\$ 9,106,401	\$ 8,501,051
ii. Employer annuity accumulation fund	18,337,403	18,529,886
iii. Total current assets	\$ 27,443,804	\$ 27,030,937
b. Present value of future member contributions	\$ 6,602,884	\$ 6,352,402
c. Present value of future employer contributions		
i. Normal contributions	\$ 909,050	\$ 407,722
ii. Accrued liability contributions	22,995,003	22,073,826
iii. Total future employer contributions	\$ 23,904,053	\$ 22,481,548
d. Total assets	\$ 57,950,741	\$ 55,864,887
2. Liabilities		
a. Employee annuity savings fund		
i. Past member contributions	\$ 9,106,401	\$ 8,501,051
ii. Present value of future member contributions	6,602,884	6,352,402
iii. Total contributions to employee annuity savings fund	\$ 15,709,285	\$ 14,853,453
b. Employer annuity accumulation fund		
i. Benefits currently in payment	\$ 31,051,873	\$ 30,760,223
ii. Benefits to be provided to other members	11,189,583	10,251,211
iii. Total benefits payable from employer annuity accumulation fund	\$ 42,241,456	\$ 41,011,434
c. Total liabilities	\$ 57,950,741	\$ 55,864,887

Police Officers Retirement System

Actuarial Balance Sheet

(Amounts expressed in thousands)

	July 1, 2019	July 1, 2018
1. Assets		
a. Current assets (actuarial value)		
i. Employee annuity savings fund	\$ 1,179,539	\$ 1,104,572
ii. Employer annuity accumulation fund	3,673,034	3,549,621
iii. Total current assets	\$ 4,852,573	\$ 4,654,193
b. Present value of future member contributions	\$ 1,001,326	\$ 951,783
c. Present value of future employer contributions		
i. Normal contributions	\$ 457,023	\$ 441,917
ii. Accrued liability contributions	2,884,842	2,723,891
iii. Total future employer contributions	\$ 3,341,865	\$ 3,165,808
d. Total assets	\$ 9,195,764	\$ 8,771,784
2. Liabilities		
a. Employee annuity savings fund		
i. Past member contributions	\$ 1,179,539	\$ 1,104,572
ii. Present value of future member contributions	1,001,326	951,783
iii. Total contributions to employee annuity savings fund	\$ 2,180,865	\$ 2,056,355
b. Employer annuity accumulation fund		
i. Benefits currently in payment	\$ 4,514,202	\$ 4,307,805
ii. Benefits to be provided to other members	2,500,697	2,407,624
iii. Total benefits payable from employer annuity accumulation fund	\$ 7,014,899	\$ 6,715,429
c. Total liabilities	\$ 9,195,764	\$ 8,771,784

General Assembly Retirement System Actuarial Balance Sheet

(Amounts expressed in thousands)

	July 1, 2019	July 1, 2018
1. Assets		
a. Current assets (actuarial value)		
i. Employee annuity savings fund	\$ 6,661	\$ 7,066
ii. Employer annuity accumulation fund	28,479	27,836
iii. Total current assets	\$ 35,140	\$ 34,902
b. Present value of future member contributions ¹	\$ 909	\$ 1,070
c. Present value of future employer contributions		
i. Normal contributions	\$ 696	\$ 880
ii. Accrued liability contributions	36,915	38,102
iii. Total future employer contributions	\$ 37,611	\$ 38,982
d. Total assets	\$ 73,660	\$ 74,954
2. Liabilities		
a. Employee annuity savings fund		
i. Past member contributions	\$ 6,661	\$ 7,066
ii. Present value of future member contributions ¹	909	1,070
iii. Total contributions to employee annuity savings fund	\$ 7,570	\$ 8,136
b. Employer annuity accumulation fund		
i. Benefits currently in payment	\$ 55,781	\$ 55,749
ii. Benefits to be provided to other members	10,309	11,069
iii. Total benefits payable from employer annuity accumulation fund	\$ 66,090	\$ 66,818
c. Total liabilities	\$ 73,660	\$ 74,954

¹ Includes expected contributions from special contributors.

Judges and Solicitors Retirement System

Actuarial Balance Sheet

(Amounts expressed in thousands)

	July 1, 2019	July 1, 2018
1. Assets		
a. Current assets (actuarial value)		
i. Employee annuity savings fund	\$ 30,289	\$ 28,259
ii. Employer annuity accumulation fund	136,830	135,099
iii. Total current assets	\$ 167,119	\$ 163,358
b. Present value of future member contributions	\$ 19,470	\$ 14,873
c. Present value of future employer contributions		
i. Normal contributions	\$ 35,036	\$ 27,583
ii. Accrued liability contributions	232,627	130,457
iii. Total future employer contributions	\$ 267,663	\$ 158,040
d. Total assets	\$ 454,252	\$ 336,271
2. Liabilities		
a. Employee annuity savings fund		
i. Past member contributions	\$ 30,289	\$ 28,259
ii. Present value of future member contributions	19,470	14,873
iii. Total contributions to employee annuity savings fund	\$ 49,759	\$ 43,132
b. Employer annuity accumulation fund		
i. Benefits currently in payment	\$ 268,747	\$ 198,893
ii. Benefits to be provided to other members	135,746	94,246
iii. Total benefits payable from employer annuity accumulation fund	\$ 404,493	\$ 293,139
c. Total liabilities	\$ 454,252	\$ 336,271

South Carolina National Guard Supplemental Retirement Plan Actuarial Balance Sheet

(Amounts expressed in thousands)

	July 1, 2019	July 1, 2018
1. Assets		
a. Current assets (actuarial value)	\$ 31,122	\$ 29,246
b. Present value of future member contributions	0	0
c. Present value of future employer contributions		
i. Normal contributions	\$ 7,472	\$ 7,274
ii. Accrued liability contributions	35,401	36,946
iii. Total future employer contributions	\$ 42,873	\$ 44,220
d. Total assets	\$ 73,995	\$ 73,466
2. Liabilities		
a. Benefits to be paid to retired members	\$ 35,589	\$ 35,132
b. Benefits to be paid to former members entitled to deferred pensions	11,121	11,348
c. Benefits to be paid to current active members	27,285	26,986
d. Total liabilities	\$ 73,995	\$ 73,466

South Carolina Retirement System

Results of the Valuation as of July 1, 2019

(Amounts expressed in thousands)

	July 1, 2019
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 31,051,873
b. Present active and inactive members	26,898,868
c. Total actuarial present value	\$ 57,950,741
2. Present Value of Future Normal Contributions	
a. Employee	\$ 6,602,884
b. Employer	909,050
c. Total future normal contributions	\$ 7,511,934
3. Actuarial Liability	\$ 50,438,807
4. Current Actuarial Value of Assets	\$ 27,443,804
5. Unfunded Actuarial Liability	\$ 22,995,003
6. UAAL Amortization Rates Based on an Employer Contribution Rate of 16.56%¹	
a. Active members	14.92%
b. ORP members	11.56%
c. Re-employed retirees (including employee contributions)	25.56%
7. Unfunded Actuarial Liability Liquidation Period	21 years

¹The employer contribution rate includes the cost of incidental death benefits.

Police Officers Retirement System

Results of the Valuation as of July 1, 2019

(Amounts expressed in thousands)

	<u>July 1, 2019</u>
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 4,514,202
b. Present active and inactive members	4,681,562
c. Total actuarial present value	\$ 9,195,764
2. Present Value of Future Normal Contributions	
a. Employee	\$ 1,001,326
b. Employer	457,023
c. Total future normal contributions	\$ 1,458,349
3. Actuarial Liability	\$ 7,737,415
4. Current Actuarial Value of Assets	\$ 4,852,573
5. Unfunded Actuarial Liability	\$ 2,884,842
6. UAAL Amortization Rates based on an Employer Contribution Rate of 19.24%¹	
a. Active members	14.45%
b. Re-employed retirees (including employee contributions)	28.99%
7. Unfunded Actuarial Liability Liquidation Period	18 years

¹The employer contribution rate includes the cost of accidental and incidental death benefits.

General Assembly Retirement System

Results of the Valuation as of July 1, 2019

(Amounts expressed in thousands)

	July 1, 2019
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 55,781
b. Present active and inactive members	17,879
c. Total actuarial present value	\$ 73,660
2. Present Value of Future Normal Contributions	
a. Employee	\$ 909
b. Employer	696
c. Total future normal contributions	\$ 1,605
3. Actuarial Liability	\$ 72,055
4. Current Actuarial Value of Assets	\$ 35,140
5. Unfunded Actuarial Liability	\$ 36,915
6. Unfunded Actuarial Liability Liquidation Period from the Valuation Date	8 years

Judges and Solicitors Retirement System Results of the Valuation as of July 1, 2019

(Amounts expressed in thousands)

	July 1, 2019
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 268,747
b. Present active and inactive members	185,505
c. Total actuarial present value	\$ 454,252
2. Present Value of Future Normal Contributions	
a. Employee	\$ 19,470
b. Employer	35,036
c. Total future normal contributions	\$ 54,506
3. Actuarial Liability	\$ 399,746
4. Current Actuarial Value of Assets	\$ 167,119
5. Unfunded Actuarial Liability	\$ 232,627
6. UAAL Amortization Rates Based on an Employer Contribution Rate of 62.94%¹	
a. Active members	43.43%
b. Deferred Retirement Option Program (DROP) and Retired-in-Place Members (including employee contributions)	72.94%
7. Unfunded Actuarial Liability Liquidation Period	20 Years

¹The employer contribution rate includes the cost of incidental death benefits.

South Carolina National Guard Supplemental Retirement Plan Results of the Valuation as of July 1, 2019

(Amounts expressed in thousands)

	July 1, 2019
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 35,589
b. Present active and inactive members	38,406
c. Total actuarial present value	\$ 73,995
2. Present Value of Future Normal Contributions	
a. Employee	\$ 0
b. Employer	7,472
c. Total future normal contributions	\$ 7,472
3. Actuarial Liability	\$ 66,523
4. Current Actuarial Value of Assets	\$ 31,122
5. Unfunded Actuarial Liability	\$ 35,401
6. Unfunded Actuarial Liability Liquidation Period¹	17 years

¹ There are two years remaining in the amortization of the unfunded liability attributable to the 2006 legislation change and 17 years remaining in the amortization of the unfunded liability due to other plan experience. The disclosure of a 17 year funding period is for stakeholders to understand when the system is expected to attain a 100% funded ratio.

South Carolina Retirement System

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the PEBA Board is responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the assumed rate of investment return. The investment return assumption is a prescribed assumption set by the General Assembly in Section 9-16-335 of South Carolina State Code. The current 7.25% return assumption expires on July 1, 2021 and the Board is to submit a proposed return assumption to the Senate Finance Committee and the House Ways and Means Committee for the General Assembly to consider when amending the Statute.

South Carolina State Statute requires that an experience analysis that reviews the economic and demographic assumptions be performed at least once every five years. The assumptions utilized in the June 30, 2019 actuarial valuation are based on the experience study conducted as of June 30, 2015. A 2020 Actuarial Experience Study was recently performed for the period ending June 30, 2019. The PEBA Board has accepted that report as information for possible adoption and recommendations will be first used in the July 1, 2021 actuarial valuation. This most recent Experience Study recommends decreasing the nominal investment return assumption to 7.00% when current statute expires, along with a new set of other economic and demographic assumptions that reflect relatively minor changes.

Following is a summary of the actuarial assumptions and methods used in the July 1, 2019 valuation of the South Carolina Retirement System for funding purposes and financial reporting purposes.

Investment Rate of Return

The assumed annual investment rate of return of 7.25 percent net of investment expenses is composed of a 2.25 percent inflation component and a 5.00 percent real rate of return, net of investment expenses.

The annual investment return assumption is prescribed in Section 9-16-335 of the South Carolina Code of Laws and as described above, the Retirement System Funding and Administration Act of 2017 lowered the assumed annual rate of return from 7.50 percent to 7.25 percent, effective July 1, 2017.

Rates of Annual Salary Increase

Rates of annual salary increase are assumed to vary for the first 20 years of service due to expected merit and promotional increases which differ by employee groups. Beginning with the 21st year of service, the assumed annual rate of increase is 3.0 percent for both groups and for all future years of service.

The 3.0 percent rate of the increase is composed of a 2.25 percent inflation component and a 0.75 percent real rate of wage increase (productivity) component.

South Carolina Retirement System
Active Male and Female Salary Increase Rate

Years of Service	General Employees		Teachers	
	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.0% Wage Inflation	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.0% Wage Inflation
1	4.00%	7.00%	7.00%	10.00%
2	3.00%	6.00%	9.50%	12.50%
3	2.25%	5.25%	3.00%	6.00%
4	1.75%	4.75%	2.75%	5.75%
5	1.50%	4.50%	2.50%	5.50%
6	1.25%	4.25%	2.25%	5.25%
7	1.00%	4.00%	2.00%	5.00%
8	1.00%	4.00%	1.75%	4.75%
9	1.00%	4.00%	1.75%	4.75%
10	0.75%	3.75%	1.50%	4.50%
11	0.50%	3.50%	1.50%	4.50%
12	0.50%	3.50%	1.25%	4.25%
13	0.50%	3.50%	1.00%	4.00%
14	0.50%	3.50%	1.00%	4.00%
15	0.50%	3.50%	0.75%	3.75%
16	0.50%	3.50%	0.75%	3.75%
17	0.50%	3.50%	0.50%	3.50%
18	0.50%	3.50%	0.50%	3.50%
19	0.25%	3.25%	0.25%	3.25%
20	0.25%	3.25%	0.25%	3.25%
21+	0.00%	3.00%	0.00%	3.00%

South Carolina Retirement System

Active Member Decrement Rates

- a. Assumed rates of service retirement are shown in the following tables. The first table provides retirement rates for Class Two members who attain age 65 before attaining 28 years of service. The second table is based on service and is for Class Two members who attain 28 years of service before age 65. The third table provides the retirement rate applicable to Class Three members.

Class Two Age Based Retirement Rates¹

Age	General Employees				Teachers			
	Reduced		Normal		Reduced		Normal	
	Male	Female	Male	Female	Male	Female	Male	Female
55	10%	9%	0%	0%	10%	9%	0%	0%
56	9%	10%	0%	0%	11%	9%	0%	0%
57	9%	10%	0%	0%	11%	10%	0%	0%
58	9%	11%	0%	0%	11%	10%	0%	0%
59	9%	11%	0%	0%	11%	10%	0%	0%
60	9%	11%	0%	0%	11%	10%	0%	0%
61	9%	11%	0%	0%	11%	13%	0%	0%
62	22%	20%	0%	0%	22%	20%	0%	0%
63	16%	18%	0%	0%	22%	20%	0%	0%
64	16%	18%	0%	0%	22%	20%	0%	0%
65	0%	0%	20%	22%	0%	0%	20%	25%
66	0%	0%	20%	22%	0%	0%	20%	25%
67	0%	0%	17%	19%	0%	0%	20%	20%
68	0%	0%	17%	19%	0%	0%	20%	20%
69	0%	0%	17%	19%	0%	0%	20%	20%
70	0%	0%	17%	19%	0%	0%	20%	20%
71	0%	0%	17%	19%	0%	0%	20%	20%
72	0%	0%	17%	19%	0%	0%	20%	20%
73	0%	0%	17%	19%	0%	0%	20%	20%
74	0%	0%	17%	19%	0%	0%	20%	20%
75	0%	0%	100%	100%	0%	0%	100%	100%

¹ Retirement rate is 50% at the later of age 62 or when the member is first eligible for a normal retirement benefit (i.e. the first age the member is eligible to concurrently commence benefits and continue employment).

South Carolina Retirement System

Class Two Service Based Retirement Rates¹

Years of Service	General Employees		Teachers	
	Male	Female	Male	Female
28	15%	18%	7%	8%
29	10%	10%	8%	9%
30	10%	10%	8%	9%
31	10%	10%	9%	10%
32	10%	10%	10%	11%
33	18%	20%	11%	12%
34	18%	20%	12%	18%
35	18%	20%	13%	18%
36	20%	20%	14%	18%
37	20%	20%	18%	18%
38	20%	20%	17%	19%
39	20%	20%	17%	20%
40+	100%	100%	100%	100%

¹ Retirement rate is 50% at the later of age 62 or when the member is first eligible for a normal retirement benefit (i.e. the first age the member is eligible to concurrently commence benefits and continue employment).

South Carolina Retirement System Class Three Retirement Rates¹

Age	General Employees				Teachers				Rule of 90 ²
	Reduced		Normal		Reduced		Normal		
	Male	Female	Male	Female	Male	Female	Male	Female	
55	0%	0%	0%	0%	0%	0%	0%	0%	20%
56	0%	0%	0%	0%	0%	0%	0%	0%	20%
57	0%	0%	0%	0%	0%	0%	0%	0%	20%
58	0%	0%	0%	0%	0%	0%	0%	0%	20%
59	0%	0%	0%	0%	0%	0%	0%	0%	20%
60	9%	11%	0%	0%	11%	10%	0%	0%	20%
61	9%	11%	0%	0%	11%	13%	0%	0%	20%
62	22%	20%	0%	0%	22%	20%	0%	0%	20%
63	16%	18%	0%	0%	22%	20%	0%	0%	20%
64	16%	18%	0%	0%	22%	20%	0%	0%	20%
65	0%	0%	20%	22%	0%	0%	20%	25%	20%
66	0%	0%	20%	22%	0%	0%	20%	25%	20%
67	0%	0%	17%	19%	0%	0%	20%	20%	20%
68	0%	0%	17%	19%	0%	0%	20%	20%	20%
69	0%	0%	17%	19%	0%	0%	20%	20%	20%
70	0%	0%	17%	19%	0%	0%	20%	20%	20%
71	0%	0%	17%	19%	0%	0%	20%	20%	20%
72	0%	0%	17%	19%	0%	0%	20%	20%	20%
73	0%	0%	17%	19%	0%	0%	20%	20%	20%
74	0%	0%	17%	19%	0%	0%	20%	20%	20%
75	0%	0%	100%	100%	0%	0%	100%	100%	100%

¹ Retirement rate is 50% at the later of age 62 or when the member is first eligible for a normal retirement benefit (i.e. the first age the member is eligible to concurrently commence benefits and continue employment).

² The "Rule of 90" retirement rates do not apply if the "Rule of 90" is achieved after age 65.

b. Assumed rates of disability are shown in the following table.

Disability Rates

Age	General Employees		Teachers	
	Male	Female	Male	Female
25	0.0504%	0.0440%	0.0419%	0.0458%
30	0.1008%	0.0616%	0.0629%	0.0616%
35	0.1512%	0.1232%	0.0838%	0.0616%
40	0.2520%	0.1584%	0.1572%	0.1074%
45	0.3528%	0.2288%	0.2620%	0.2200%
50	0.5040%	0.3872%	0.4192%	0.3520%
55	0.8064%	0.6160%	0.6812%	0.5720%
60	1.0080%	0.9416%	1.0480%	0.8800%
64	1.2600%	1.3112%	1.3100%	1.1000%

There is no differentiation between duty and nonduty related disability benefits.

c. Active Member Mortality

Rates of active member mortality are based upon the RP-2014 Mortality Table for Employees with applicable multipliers to better reflect anticipated experience and provide margin for future improvement in mortality.

South Carolina Retirement System
Active Mortality Rates (Multiplier Applied)

Age	General Employees		Teachers	
	Male	Female	Male	Female
25	0.0460%	0.0164%	0.0460%	0.0147%
30	0.0429%	0.0207%	0.0429%	0.0185%
35	0.0497%	0.0272%	0.0497%	0.0243%
40	0.0597%	0.0376%	0.0597%	0.0337%
45	0.0924%	0.0624%	0.0924%	0.0558%
50	0.1602%	0.1047%	0.1602%	0.0937%
55	0.2649%	0.1589%	0.2649%	0.1422%
60	0.4454%	0.2320%	0.4454%	0.2076%
64	0.7008%	0.3220%	0.7008%	0.2881%
Multiplier	95%	95%	95%	85%

For purposes of determining active death benefits, 5 percent of active deaths for general employees are assumed to be duty related.

d. Rates of Withdrawal

Rate of withdrawal for active members prior to eligibility for retirement are for each employee group and differ by gender and service. Sample rates are shown in the following tables.

South Carolina Retirement System Withdrawal Rates - Male General Employees

Age	Years of Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
25	0.200	0.175	0.123	0.103	0.090	0.085	0.071	0.064	0.055	0.050	0.040	0.000	0.000	0.000	0.000
30	0.200	0.175	0.123	0.103	0.090	0.085	0.071	0.064	0.055	0.050	0.040	0.040	0.037	0.034	0.031
35	0.200	0.175	0.123	0.103	0.090	0.085	0.071	0.064	0.055	0.050	0.040	0.040	0.037	0.034	0.031
40	0.200	0.175	0.123	0.103	0.090	0.085	0.071	0.064	0.055	0.050	0.034	0.034	0.034	0.034	0.031
45	0.200	0.175	0.123	0.103	0.090	0.085	0.071	0.064	0.055	0.050	0.031	0.031	0.029	0.026	0.023
50	0.200	0.175	0.123	0.103	0.090	0.085	0.071	0.064	0.055	0.050	0.020	0.020	0.020	0.020	0.020
55	0.200	0.175	0.123	0.103	0.090	0.085	0.071	0.064	0.055	0.050	0.010	0.010	0.010	0.010	0.010
60	0.200	0.175	0.123	0.103	0.090	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Age	Years of Service (Continued)														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28+	
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
35	0.029	0.026	0.023	0.020	0.018	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
40	0.029	0.026	0.023	0.020	0.018	0.015	0.013	0.011	0.010	0.009	0.008	0.000	0.000	0.000	
45	0.020	0.020	0.020	0.020	0.018	0.015	0.013	0.011	0.010	0.009	0.008	0.007	0.006	0.000	
50	0.020	0.018	0.015	0.013	0.011	0.010	0.010	0.010	0.010	0.009	0.008	0.007	0.006	0.000	
55	0.010	0.010	0.010	0.010	0.010	0.010	0.009	0.008	0.007	0.006	0.000	0.000	0.000	0.000	
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Withdrawal Rates - Female General Employees

Age	Years of Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
25	0.230	0.217	0.141	0.118	0.101	0.097	0.084	0.075	0.067	0.057	0.046	0.000	0.000	0.000	0.000
30	0.230	0.217	0.141	0.118	0.101	0.097	0.084	0.075	0.067	0.057	0.046	0.046	0.042	0.038	0.034
35	0.230	0.217	0.141	0.118	0.101	0.097	0.084	0.075	0.067	0.057	0.046	0.046	0.042	0.038	0.034
40	0.230	0.217	0.141	0.118	0.101	0.097	0.084	0.075	0.067	0.057	0.038	0.038	0.038	0.038	0.034
45	0.230	0.217	0.141	0.118	0.101	0.097	0.084	0.075	0.067	0.057	0.034	0.034	0.030	0.026	0.023
50	0.230	0.217	0.141	0.118	0.101	0.097	0.084	0.075	0.067	0.057	0.020	0.020	0.020	0.020	0.020
55	0.230	0.217	0.141	0.118	0.101	0.097	0.084	0.075	0.067	0.057	0.012	0.012	0.012	0.012	0.012
60	0.230	0.217	0.141	0.118	0.101	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Age	Years of Service (Continued)														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28+	
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
35	0.030	0.026	0.023	0.020	0.018	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
40	0.030	0.026	0.023	0.020	0.018	0.016	0.014	0.013	0.012	0.011	0.010	0.000	0.000	0.000	
45	0.020	0.020	0.020	0.020	0.018	0.016	0.014	0.013	0.012	0.011	0.010	0.009	0.008	0.000	
50	0.020	0.018	0.016	0.014	0.013	0.012	0.012	0.012	0.012	0.011	0.010	0.009	0.008	0.000	
55	0.012	0.012	0.012	0.012	0.012	0.012	0.011	0.010	0.009	0.008	0.000	0.000	0.000	0.000	
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

South Carolina Retirement System Withdrawal Rates - Male Teachers

Age	Years of Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
25	0.000	0.217	0.145	0.117	0.098	0.083	0.071	0.061	0.050	0.042	0.039	0.000	0.000	0.000	0.000
30	0.000	0.217	0.145	0.117	0.098	0.083	0.071	0.061	0.050	0.042	0.039	0.030	0.030	0.029	0.028
35	0.000	0.217	0.145	0.117	0.098	0.083	0.071	0.061	0.050	0.042	0.039	0.030	0.030	0.029	0.028
40	0.000	0.217	0.145	0.117	0.098	0.083	0.071	0.061	0.050	0.042	0.039	0.029	0.029	0.029	0.028
45	0.000	0.217	0.145	0.117	0.098	0.083	0.071	0.061	0.050	0.042	0.039	0.028	0.027	0.026	0.024
50	0.000	0.217	0.145	0.117	0.098	0.083	0.071	0.061	0.050	0.042	0.039	0.022	0.022	0.022	0.022
55	0.000	0.217	0.145	0.117	0.098	0.083	0.071	0.061	0.050	0.042	0.039	0.013	0.013	0.013	0.013
60	0.000	0.217	0.145	0.117	0.098	0.083	0.071	0.061	0.050	0.042	0.039	0.008	0.008	0.008	0.008
Age	Years of Service (Continued)														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28+	
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
35	0.027	0.026	0.024	0.022	0.020	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
40	0.027	0.026	0.024	0.022	0.020	0.017	0.015	0.014	0.013	0.012	0.011	0.000	0.000	0.000	
45	0.022	0.022	0.022	0.022	0.020	0.017	0.015	0.014	0.013	0.012	0.011	0.010	0.009	0.000	
50	0.022	0.020	0.017	0.015	0.014	0.013	0.013	0.013	0.013	0.012	0.011	0.010	0.009	0.000	
55	0.013	0.013	0.013	0.013	0.013	0.013	0.012	0.011	0.010	0.009	0.008	0.008	0.008	0.000	
60	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.000	0.000	0.000	0.000	

Withdrawal Rates – Female Teachers

Age	Years of Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
25	0.000	0.202	0.125	0.103	0.089	0.074	0.069	0.057	0.053	0.046	0.037	0.000	0.000	0.000	0.000
30	0.000	0.202	0.125	0.103	0.089	0.074	0.069	0.057	0.053	0.046	0.037	0.030	0.030	0.027	0.024
35	0.000	0.202	0.125	0.103	0.089	0.074	0.069	0.057	0.053	0.046	0.037	0.030	0.030	0.027	0.024
40	0.000	0.202	0.125	0.103	0.089	0.074	0.069	0.057	0.053	0.046	0.037	0.030	0.027	0.027	0.024
45	0.000	0.202	0.125	0.103	0.089	0.074	0.069	0.057	0.053	0.046	0.037	0.024	0.022	0.020	0.018
50	0.000	0.202	0.125	0.103	0.089	0.074	0.069	0.057	0.053	0.046	0.037	0.018	0.016	0.016	0.016
55	0.000	0.202	0.125	0.103	0.089	0.074	0.069	0.057	0.053	0.046	0.037	0.010	0.009	0.009	0.009
60	0.000	0.202	0.125	0.103	0.089	0.074	0.069	0.057	0.053	0.046	0.037	0.006	0.006	0.006	0.006
Age	Years of Service (Continued)														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28+	
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
35	0.022	0.020	0.018	0.016	0.014	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
40	0.022	0.020	0.018	0.016	0.014	0.012	0.011	0.010	0.009	0.008	0.007	0.000	0.000	0.000	
45	0.016	0.016	0.016	0.016	0.014	0.012	0.011	0.010	0.009	0.008	0.007	0.006	0.006	0.000	
50	0.016	0.014	0.012	0.011	0.010	0.009	0.009	0.009	0.009	0.008	0.007	0.006	0.006	0.000	
55	0.009	0.009	0.009	0.009	0.009	0.009	0.008	0.007	0.006	0.006	0.006	0.006	0.006	0.000	
60	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.000	0.000	0.000	0.000	

South Carolina Retirement System Refund of Member Contributions

The following percentage of vested members are assumed to elect to receive a refund of contributions upon termination of employment prior to becoming eligible to commence a service retirement benefit. This assumption is based on the plan's experience.

Age	Less than 40	40-49	50 or Older
Refund rate	45%	40%	35%

Post Retirement Mortality

- a. Healthy retirees and beneficiaries – The 2016 Public Retirees of South Carolina Mortality Table for Males and the 2016 Public Retirees of South Carolina Mortality Table for Females, projected using the AA projection table from the year 2016 and with multipliers based on plan experience. The following are sample rates of the base table:

Nondisabled Annuitant Mortality Rates Before Projection (Multiplier Applied)

Age	General Employees		Teachers	
	Male	Female	Male	Female
50	0.2038%	0.1454%	0.1875%	0.1284%
55	0.3205%	0.2465%	0.2949%	0.2177%
60	0.5863%	0.4265%	0.5394%	0.3765%
65	1.0198%	0.5924%	0.9382%	0.5230%
70	1.5718%	0.9640%	1.4461%	0.8511%
75	2.7195%	1.8534%	2.5019%	1.6363%
80	5.0493%	3.7276%	4.6454%	3.2910%
85	9.1594%	7.0538%	8.4266%	6.2277%
90	15.9042%	12.3489%	14.6319%	10.9026%
Multiplier	100%	111%	92%	98%

The following table provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection.

Life Expectancy for an Age 65 Retiree in Years

Employee Type	Year of Retirement			
	2020	2025	2030	2035
General Employee - Male	20.6	20.9	21.3	21.6
General Employee - Female	22.7	22.8	23.0	23.2
Teacher - Male	21.2	21.5	21.9	22.2
Teacher - Female	23.6	23.8	24.0	24.1

- b. A separate table of mortality rates is used for disabled retirees based on the RP-2014 Disabled Mortality table projected using the AA projection table from the year 2014 and with multipliers based on plan experience. The following are sample rates of the base table:

South Carolina Retirement System Disabled Annuitant Mortality Rates (Multiplier Applied)

Age	General Employees		Teachers	
	Male	Female	Male	Female
50	2.5494%	1.4884%	2.5494%	1.4884%
55	2.9211%	1.8099%	2.9211%	1.8099%
60	3.3255%	2.1249%	3.3255%	2.1249%
65	3.9606%	2.6075%	3.9606%	2.6075%
70	5.0433%	3.5254%	5.0433%	3.5254%
75	6.7859%	5.1306%	6.7859%	5.1306%
80	9.5770%	7.6295%	9.5770%	7.6295%
85	14.1629%	11.3025%	14.1629%	11.3025%
90	21.6256%	16.5815%	21.6256%	16.5815%
Multiplier	125%	125%	125%	125%

Asset Valuation Method

The actuarial value of assets is equal to the market value, adjusted for the five-year phase in of the actual investment return in excess of (or less than) the expected investment return on a market value of asset basis. This five-year phase in begins with the investment experience for the fiscal year ending June 30, 2016. The actual return is calculated net of investment expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds.

Expected earnings are determined using the assumed investment rate of return and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level percent of payroll necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability, on an actuarial value of asset basis, with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability, on an actuarial value of asset basis, with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

Note, the principle financial measurement calculations in this actuarial valuation, which include the unfunded actuarial accrued liability, funded ratio, contribution rates, and funding period, are based on an actuarial value of assets (smoothed value) basis. The actuarial value of assets is a calculated asset value which may be greater than or less than the market value of assets and is used to dampen some of the volatility in the market value of assets. As a result, many of these measures would be different if they were determined on a market value of assets basis.

Development of the Contribution Rate and Funding Period

The calculation of the employer and member contribution rate as well as the derived funding period takes into account several differences in the contributions paid by the various members as well as the delayed timing (if any) in the effective date of the new contribution rate. Specifically, the factors that are reflected in the calculations of the contribution rate include:

1. The cost (normal cost and actuarial accrued liability) due to incidental death benefits provided to members in the ORP.
2. Member and employer contributions made on the payroll of working retirees are being used to finance the unfunded actuarial accrued liability since these members do not have a normal cost. Also, the number of working retirees is expected to decrease due to changes in working after retirement provisions enacted with 2012 legislative changes.
3. The money collected on the payroll of members in ORP that is allocated to finance the unfunded liability in SCRS, which is the SCRS employer contribution rate less 5%, is less than the money collected on the payroll of members in SCRS to finance the unfunded actuarial accrued liability.
4. For purposes of calculating the amortization cost and funding period, discrete pay increases and continuous interest was assumed, with amortization payments made at the end of each month.

Unused Annual Leave

To account for the effect of unused annual leave in Average Final Compensation (AFC) of Class Two members, the AFC for Class Two members is increased 2.14 percent at their date of retirement. Unused annual leave is not included in the calculation of the AFC for Class Three members.

Unused Sick Leave

To account for the effect of unused sick leave on credited service for Class Two members, the service of active Class Two members who retire is increased three months. Unused sick leave is not included in determining the credited service for Class Three members.

Future Post-Retirement Benefit Adjustments

Benefits are assumed to increase by the lesser of 1.00 percent annually or \$500 beginning on the July 1st following the receipt of 12 monthly benefit payments. The \$500 limit in the annual increase is not indexed to escalate in future years.

Payroll Growth Rate

The total annual payroll of active members (also applies to ORP members and working retirees) is assumed to increase at an annual rate of 3.00 percent. This rate represents the underlying expected annual rate of wage inflation and does not anticipate increases in the number of members.

Other Assumptions

1. Valuation payroll (used for determining the amortization contribution rate): Prior fiscal year payroll projected forward one year using the overall payroll growth rate. This was determined for working retirees by dividing the actual member contributions received during the prior fiscal year by the member contribution rate in effect for that year, and then projecting that amount forward one year.
2. The normal cost rate is increased by 0.12 percent to account for administrative expenses that are paid with plan assets.
3. Individual salaries used to project benefits: Actual salaries from the past fiscal year are used to determine the final average salary as of the valuation date. For future salaries, the salary from the last fiscal year is projected forward with one year's salary scale.
4. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported salaries represent amounts paid to members during the year ended on the valuation date.
5. Percent married: 100 percent of male and 100 percent of female employees are assumed to be married.
6. Age difference: Males are assumed to be three years older than their spouses.
7. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an immediate life annuity.
8. Inactive Population: All non-vested members are assumed to take an immediate refund.
9. There will be no recoveries once disabled.
10. Decrement timing: Terminations for public school employees are assumed to occur at the beginning of the year. Decrements of all types are assumed to occur mid-year.
11. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
12. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
13. Incidence of contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
14. Benefit service: All members are assumed to accrue one year of eligibility service each year.
15. All calculations were performed without regard to the compensation limit in IRC Section 401(a)(17) and the benefit limit under IRC Section 415.

Participant Data

Participant data was securely supplied in electronic text files. There were separate files for (i) active and inactive members and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, service with the current employer and total vesting service, salary, and employee contribution account balances. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and form of payment code.

Salary supplied for the current year was based on the annualized earnings for the year preceding the valuation date. Assumptions were made to correct for missing or inconsistent data. These had no material impact on the results presented.

South Carolina Retirement System

Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	<u>Year Ending June 30, 2019</u>																																								
1. Actuarial value of assets at beginning of year	\$ 27,030,937																																								
2. Market value of assets at beginning of year	\$ 26,414,916																																								
3. Net new investments																																									
a. Contributions	\$ 2,419,998																																								
b. Disbursements	(3,095,389)																																								
c. Subtotal	(675,391)																																								
4. Market value of assets at end of year	\$ 27,238,916																																								
5. Net earnings (Item 4. - Item 2. - Item 3.c.)	\$ 1,499,391																																								
6. Assumed investment return rate for fiscal year	7.25%																																								
7. Expected return (Item 6. x (Item 2. + 1/2 Item 3.c.))	\$ 1,890,598																																								
8. Excess return (Item 5. - Item 7.)	\$ (391,207)																																								
9. Excess return on assets as of June 30, 2019:																																									
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="text-align: center;"><u>Fiscal Year</u></th> <th style="text-align: center;"><u>Excess</u></th> <th style="text-align: center;"><u>Percent</u></th> <th style="text-align: center;"><u>Deferred</u></th> </tr> <tr> <td></td> <th style="text-align: center;"><u>Ending June 30,</u></th> <th style="text-align: center;"><u>Return/(Shortfall)</u></th> <th style="text-align: center;"><u>Deferred</u></th> <th style="text-align: center;"><u>Amount</u></th> </tr> </thead> <tbody> <tr> <td style="padding-left: 20px;">a.</td> <td style="text-align: center;">2019</td> <td style="text-align: right;">\$ (391,207)</td> <td style="text-align: center;">80%</td> <td style="text-align: right;">\$ (312,966)</td> </tr> <tr> <td style="padding-left: 20px;">b.</td> <td style="text-align: center;">2018</td> <td style="text-align: right;">168,619</td> <td style="text-align: center;">60%</td> <td style="text-align: right;">\$ 101,171</td> </tr> <tr> <td style="padding-left: 20px;">c.</td> <td style="text-align: center;">2017</td> <td style="text-align: right;">1,031,041</td> <td style="text-align: center;">40%</td> <td style="text-align: right;">\$ 412,416</td> </tr> <tr> <td style="padding-left: 20px;">d.</td> <td style="text-align: center;">2016</td> <td style="text-align: right;">(2,027,545)</td> <td style="text-align: center;">20%</td> <td style="text-align: right;">\$ (405,509)</td> </tr> <tr> <td style="padding-left: 20px;">e.</td> <td style="text-align: center;">2015</td> <td style="text-align: right;">(2,792,616)</td> <td style="text-align: center;">0%</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td style="padding-left: 20px;">f.</td> <td style="text-align: center;">Total</td> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$ (204,888)</td> </tr> </tbody> </table>		<u>Fiscal Year</u>	<u>Excess</u>	<u>Percent</u>	<u>Deferred</u>		<u>Ending June 30,</u>	<u>Return/(Shortfall)</u>	<u>Deferred</u>	<u>Amount</u>	a.	2019	\$ (391,207)	80%	\$ (312,966)	b.	2018	168,619	60%	\$ 101,171	c.	2017	1,031,041	40%	\$ 412,416	d.	2016	(2,027,545)	20%	\$ (405,509)	e.	2015	(2,792,616)	0%	\$ -	f.	Total			\$ (204,888)
	<u>Fiscal Year</u>	<u>Excess</u>	<u>Percent</u>	<u>Deferred</u>																																					
	<u>Ending June 30,</u>	<u>Return/(Shortfall)</u>	<u>Deferred</u>	<u>Amount</u>																																					
a.	2019	\$ (391,207)	80%	\$ (312,966)																																					
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e.	2015	(2,792,616)	0%	\$ -																																					
f.	Total			\$ (204,888)																																					
10. Actuarial value of assets as of June 30, 2019 (Item 4. - Item 9.f.)	\$ 27,443,804																																								
11. Expected actuarial value as of June 30, 2019	\$ 28,290,806																																								
12. Asset gain (loss) for year (Item 10. - Item 11.)	\$ (847,002)																																								
13. Asset gain (loss) as % of the actuarial value of assets	(3.1%)																																								
14. Ratio of actuarial value to market value	100.8%																																								

Police Officers Retirement System

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the PEBA Board is responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the assumed rate of investment return. The investment return assumption is a prescribed assumption set by the General Assembly in Section 9-16-335 of South Carolina State Code. The current 7.25% return assumption expires on July 1, 2021 and the Board is to submit a proposed return assumption to the Senate Finance Committee and the House Ways and Means Committee for the General Assembly to consider when amending the Statute.

South Carolina State Statute requires that an experience analysis that reviews the economic and demographic assumptions be performed at least once every five years. The assumptions utilized in the June 30, 2019 actuarial valuation are based on the experience study conducted as of June 30, 2015. A 2020 Actuarial Experience Study was recently performed for the period ending June 30, 2019. The PEBA Board has accepted that report as information for possible adoption and recommendations will be first used in the July 1, 2021 actuarial valuation. This most recent Experience Study recommends decreasing the nominal investment return assumption to 7.00% when current statute expires, along with a new set of other economic and demographic assumptions that reflect relatively minor changes.

Following is a summary of the actuarial assumptions and methods used in the July 1, 2019 valuation of the Police Officers Retirement System for funding purposes and financial reporting purposes.

Investment Rate of Return

The assumed annual investment rate of return of 7.25 percent net of investment expenses is composed of a 2.25 percent inflation component and a 5.00 percent real rate of return, net of investment expenses.

The annual investment return assumption is prescribed in Section 9-16-335 of the South Carolina Code of Laws and as described above, the Retirement System Funding and Administration Act of 2017 lowered the assumed annual rate of return from 7.50 percent to 7.25 percent, effective July 1, 2017.

Rates of Annual Salary Increase

Rates of annual salary increase are assumed to vary for the first 15 years of service to include anticipated merit and promotional increases. The assumed annual rate of increase is 3.50 percent for all members with 15 or more years of service.

The 3.50 percent rate of increase is composed of a 2.25 percent inflation component and a 1.25 percent real rate of wage increase (productivity) component.

Police Officers Retirement System
Active Male and Female Salary Increase Rate

Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.50% Wage Inflation
1	6.00%	9.50%
2	5.50%	9.00%
3	3.00%	6.50%
4	1.50%	5.00%
5	1.25%	4.75%
6	1.00%	4.50%
7	1.00%	4.50%
8	0.75%	4.25%
9	0.75%	4.25%
10	0.50%	4.00%
11	0.50%	4.00%
12	0.50%	4.00%
13	0.50%	4.00%
14	0.25%	3.75%
15	0.00%	3.50%
16	0.00%	3.50%
17	0.00%	3.50%
18	0.00%	3.50%
19	0.00%	3.50%
20+	0.00%	3.50%

Police Officers Retirement System

Active Member Decrement Rates

- a. Assumed rates of service retirement are shown in the following tables. The first table is for members who attain age 55 before attaining 25 years of service (27 years of service for Class Three Members). The second table is based on service and is for members who attain 25 years of service (27 years of service for Class Three Members) before age 55.

Age Based Retirement Rates/Service Based Retirement Rates

Age	Male	Female
55	20%	20%
56	20%	20%
57	20%	20%
58	10%	10%
59	10%	10%
60	10%	10%
61	25%	25%
62	25%	25%
63	25%	25%
64	25%	25%
65	25%	25%
66	25%	25%
67	25%	25%
68	25%	25%
69	25%	25%
70	100%	100%
71	100%	100%
72	100%	100%
73	100%	100%
74	100%	100%
75	100%	100%

Years of Service		Male	Female
Class Two	Class Three		
25	27	40%	40%
26	28	10%	10%
27	29	10%	10%
28	30	10%	10%
29	31	10%	10%
30	32	10%	10%
31	33	10%	10%
32	34	10%	10%
33	35	10%	10%
34	36	10%	10%
35	37	10%	10%
36	38	10%	10%
37	39	10%	10%
38	40	10%	10%
39	41	10%	10%
40	42	100%	100%

- b. Assumed rates of disability are shown in the following table. Twenty-five percent of disabilities are assumed to be duty-related.

Police Officers Retirement System Disability Rates

Age	Male	Female
25	0.1740%	0.1740%
30	0.2320%	0.2320%
35	0.4350%	0.4350%
40	0.5800%	0.5800%
45	0.8700%	0.8700%
50	1.0875%	1.0875%
55	0.0000%	0.0000%
60	0.0000%	0.0000%
64	0.0000%	0.0000%

- c. Active Member Mortality

Rates of active member mortality are based upon the RP-2014 Mortality Table for Employees with applicable multipliers to better reflect anticipated experience and provide margin for future improvement in mortality.

Active Mortality Rates (Multiplier Applied)

Age	Male	Female
25	0.0460%	0.0164%
30	0.0429%	0.0207%
35	0.0497%	0.0272%
40	0.0597%	0.0376%
45	0.0924%	0.0624%
50	0.1602%	0.1047%
55	0.2649%	0.1589%
60	0.4454%	0.2320%
64	0.7008%	0.3220%
Multiplier	95%	95%

For purposes of determining active death benefits, five percent of active deaths for general employees are assumed to be duty related.

d. Rates of Withdrawal

Rates of withdrawal are service related. Sample rates are shown in the table below.

Police Officers Retirement System
Annual Withdrawal Rate

Years of Service	Male	Female
0	25.00%	25.00%
1	18.00%	18.00%
2	14.00%	14.00%
3	12.00%	12.00%
4	10.70%	10.70%
5	9.54%	9.54%
6	8.50%	8.50%
7	7.58%	7.58%
8	6.75%	6.75%
9	6.02%	6.02%
10	5.37%	5.37%
11	4.78%	4.78%
12	4.26%	4.26%
13	3.80%	3.80%
14	3.39%	3.39%
15	3.02%	3.02%
16	2.69%	2.69%
17	2.40%	2.40%
18	2.14%	2.14%
19	1.91%	1.91%
20	1.70%	1.70%
21	1.51%	1.51%
22	1.35%	1.35%
23	1.20%	1.20%

Police Officers Retirement System Post Retirement Mortality

- a. Healthy retirees and beneficiaries – The 2016 Public Retirees of South Carolina Mortality Table for Males and the 2016 Public Retirees of South Carolina Mortality Table for Females. Future mortality improvements are assumed each year using Scale AA from the year 2016 and multipliers applied to the base table to appropriately fit with plan experience. The following are sample rates:

Nondisabled Annuitant Mortality Rates Before Projection (Multiplier Applied)

Age	Male	Female
50	0.2548%	0.1454%
55	0.4006%	0.2465%
60	0.7329%	0.4265%
65	1.2748%	0.5924%
70	1.9648%	0.9640%
75	3.3994%	1.8534%
80	6.3116%	3.7276%
85	11.4493%	7.0538%
90	19.8803%	12.3489%
Multiplier	125%	111%

Life Expectancy for an Age 65 Retiree in Years

Gender	Year of Retirement			
	2020	2025	2030	2035
Male	18.9	19.3	19.7	20.0
Female	22.7	22.8	23.0	23.2

- b. A separate table of mortality rates is used for disabled retirees based on the RP-2014 Disabled Mortality Table projected using the AA projection table from the year 2014 with multipliers applied to appropriate fit to plan experience. The following are sample rates:

Police Officers Retirement System
Disabled Annuitant Mortality Rates (Multiplier Applied)

Age	Male	Female
50	1.7336%	1.0121%
55	1.9864%	1.2307%
60	2.2613%	1.4449%
65	2.6932%	1.7731%
70	3.4294%	2.3973%
75	4.6144%	3.4888%
80	6.5124%	5.1881%
85	9.6308%	7.6857%
90	14.7054%	11.2754%
Multiplier	85%	85%

Asset Valuation Method

The actuarial value of assets is equal to the market value, adjusted for the five-year phase in of the actual investment return in excess of (or less than) the expected investment return on a market value of asset basis. This five-year phase in begins with the investment experience for the fiscal year ending June 30, 2016. The actual return is calculated net of investment expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year’s market value of assets, adjusted for contributions, benefits paid, and refunds.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System’s actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level percent of payroll necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability, on an actuarial value of asset basis, with the expected amount of employer contributions in excess of the employers’ portion of the normal cost.

Note, the principle financial measurement calculations in this actuarial valuation, which include the unfunded actuarial accrued liability, funded ratio, contribution rates, and funding period, are based on an actuarial value of assets (smoothed value) basis. The actuarial value of assets is a calculated asset value which may be greater than or less than the market value of assets and is used to dampen some of the volatility in the market value of

assets. As a result, many of these measures would be different if they were determined on a market value of assets basis.

Development of the Contribution Rate and Funding Period

The calculation of the employer and member contribution rate as well as the derived funding period takes into account several differences in the contributions paid by the various members as well as the delayed timing (if any) in the effective date of the new contribution rate. Specifically, the factors that are reflected in the calculations of the contribution rate include:

1. Member and employer contributions made on the payroll of working retirees are being used to finance the unfunded actuarial accrued liability since these members do not have a normal cost. Also, the number of working retirees is expected to decrease due to changes in working after retirement provisions enacted with 2012 legislative changes.
2. For purposes of calculating the amortization cost and funding period, discrete pay increases and continuous interest was assumed, with amortization payments made at the end of each month.

Unused Annual Leave

To account for the effect of unused annual leave in Average Final Compensation (AFC) of Class Two members, the AFC for Class Two members is increased 3.75 percent at their projected date of termination or retirement. Unused annual leave is not included in the calculation of the AFC for Class Three members.

Unused Sick Leave

To account for the effect of unused sick leave on credited service for Class Two members, the service of active Class Two members who retire is increased three months. Unused sick leave is not included in determining the credited service for Class Three members.

Future Post-Retirement Benefit Adjustments

Benefits are assumed to increase by the lesser of 1.00 percent annually or \$500 beginning on the July 1st following the receipt of 12 monthly benefit payments. The \$500 limit in the annual increase is not indexed to escalate in future years.

Payroll Growth Rate

The total annual payroll of all contributing members is assumed to increase at an annual rate of 3.00 percent.

Other Assumptions

1. Valuation payroll (used for determining the amortization contribution rate): Prior fiscal year payroll projected forward one year using the overall payroll growth rate. This was determined separately for active employees and return to work employees by dividing the actual member contributions received during the prior fiscal year by the applicable member contribution rate for that fiscal year, and then projecting forward at 3.00 percent.
2. Individual salaries used to project benefits: Actual salaries from the past fiscal year are used to determine the final average salary as of the valuation date. For future salaries, the salary from the last fiscal year is projected forward with one year's salary scale.
3. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported salaries represent amounts paid to members during the year ended on the valuation date.
4. Percent married: 100 percent of male and 100 percent of female employees are assumed to be married.

5. Age difference: Males are assumed to be four years older than their spouses.
6. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an immediate life annuity.
7. Inactive Population: All non-vested members are assumed to take an immediate refund. Vested members are assumed to elect a refund or a deferred benefit commencing at age 65, whichever is more valuable at the valuation date.
8. There will be no recoveries once disabled.
9. Decrement timing: Decrements of all types are assumed to occur mid-year.
10. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
11. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
12. Incidence of contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
13. Benefit service: All members are assumed to accrue one year of eligibility service each year.
14. All calculations were performed without regard to the compensation limit in IRC Section 401(a)(17) and the benefit limit under IRC Section 415.

Participant Data

Participant data was securely supplied in electronic text files. There were separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, service with the current employer and total vesting service, salary, and employee contribution account balances. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and form of payment code.

Salary supplied for the current year was based on the annualized earnings for the year preceding the valuation date. Assumptions were made to correct for missing or inconsistent data. These had no material impact on the results presented.

Police Officers Retirement System

Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	<u>Year Ending June 30, 2019</u>
1. Actuarial value of assets at beginning of year	\$ 4,654,193
2. Market value of assets at beginning of year	\$ 4,570,431
3. Net new investments	
a. Contributions	\$ 395,051
b. Disbursements	(413,995)
c. Subtotal	(18,944)
4. Market value of assets at end of year	\$ 4,815,809
5. Net earnings (Item 4. - Item 2. - Item 3.c.)	\$ 264,322
6. Assumed investment return rate for fiscal year	7.25%
7. Expected return (Item 6. x (Item 2. + 1/2 Item 3.c.))	\$ 330,670
8. Excess return (Item 5. - Item 7.)	\$ (66,348)
9. Excess return on assets as of June 30, 2019:	
a.	Fiscal Year
b.	<u>Ending June 30,</u>
c.	Excess
d.	<u>Return/(Shortfall)</u>
e.	Percent
f.	<u>Deferred</u>
g.	<u>Amount</u>
a.	2019
b.	2018
c.	2017
d.	2016
e.	2015
f.	Total
g.	\$ (66,348)
h.	22,932
i.	167,381
j.	(321,987)
k.	(368,711)
l.	80%
m.	60%
n.	40%
o.	20%
p.	0%
q.	\$ (53,078)
r.	\$ 13,759
s.	\$ 66,952
t.	\$ (64,397)
u.	\$ -
v.	\$ (36,764)
10. Actuarial value of assets as of June 30, 2019 (Item 4. - Item 9.f.)	\$ 4,852,573
11. Expected actuarial value as of June 30, 2019	\$ 4,971,991
12. Asset gain (loss) for year (Item 10. - Item 11.)	\$ (119,418)
13. Asset gain (loss) as % of the actuarial value of assets	(2.5%)
14. Ratio of actuarial value to market value	100.8%

General Assembly Retirement System

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the PEBA Board is responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the assumed rate of investment return. The investment return assumption is a prescribed assumption set by the General Assembly in Section 9-16-335 of South Carolina State Code. The current 7.25% return assumption expires on July 1, 2021 and the Board is to submit a proposed return assumption to the Senate Finance Committee and the House Ways and Means Committee for the General Assembly to consider when amending the Statute.

South Carolina State Statute requires that an experience analysis that reviews the economic and demographic assumptions be performed at least once every five years. The assumptions utilized in the June 30, 2019 actuarial valuation are based on the experience study conducted as of June 30, 2015. A 2020 Actuarial Experience Study was recently performed for the period ending June 30, 2019. The PEBA Board has accepted that report as information for possible adoption and recommendations will be first used in the July 1, 2021 actuarial valuation. This most recent Experience Study recommends decreasing the nominal investment return assumption to 7.00% when current statute expires, along with a new set of other economic and demographic assumptions that reflect relatively minor changes.

Following is a summary of the actuarial assumptions and methods used in the July 1, 2019 valuation of the General Assembly Retirement System for funding purposes and financial reporting purposes.

Investment Rate of Return

The assumed annual investment rate of return of 7.25 percent net of investment expenses is composed of a 2.25 percent inflation component and a 5.00 percent real rate of return, net of investment expenses.

The annual investment return assumption is prescribed in Section 9-16-335 of the South Carolina Code of Laws and as described above, the Retirement System Funding and Administration Act of 2017 lowered the assumed annual rate of return from 7.50 percent to 7.25 percent, effective July 1, 2017.

Rates of Annual Salary Increase

No increases in salary are assumed.

General Assembly Retirement System

Active Member Decrement Rates

- a. Assumed rates of service retirement are shown in the following table. In addition to the rates in the table below, members with 30 years of service are assumed to immediately commence their retirement benefit. Special contributors are assumed to retire at the earlier of attaining age 60 or attaining 22 years of service.

Age Based Retirement Rates

Age	Assumed Rate
60 & Under	50.00%
61-64	10.00%
65-69	20.00%
70 & older	100.00%

- b. An abbreviated table with the assumed rates of disability and mortality while employed is shown below. There is no active employment withdrawal assumption.

Disability Rates/Pre-Retirement Mortality¹

Age	Disability Rates		Pre-Retirement Mortality	
	Male	Female	Male	Female
25	0.0419%	0.0458%	0.0460%	0.0164%
30	0.0629%	0.0616%	0.0429%	0.0207%
35	0.0838%	0.0616%	0.0497%	0.0272%
40	0.1572%	0.1074%	0.0597%	0.0376%
45	0.2620%	0.2200%	0.0924%	0.0624%
50	0.4192%	0.3520%	0.1602%	0.1047%
55	0.6812%	0.5720%	0.2649%	0.1589%
60	1.0480%	0.8800%	0.4454%	0.2320%
Multiplier	104.8%	88%	95%	95%

¹The multiplier has been applied to the decrement in the illustrative table.

General Assembly Retirement System Post Retirement Mortality

- a. Healthy retirees and beneficiaries – The 2016 Public Retirees of South Carolina Mortality Table for Males and the 2016 Public Retirees of South Carolina Mortality Table for Females multiplied projected using the AA projection table from the year 2016 with multipliers based on plan experience. The following are sample rates:

Healthy Annuitant Mortality Rates Before Projection¹

Age	Male	Female
50	0.2038%	0.1454%
55	0.3205%	0.2465%
60	0.5863%	0.4265%
65	1.0198%	0.5924%
70	1.5718%	0.9640%
75	2.7195%	1.8534%
80	5.0493%	3.7276%
85	9.1594%	7.0538%
90	15.9042%	12.3489%
Multiplier	100%	111%

¹The multiplier has been applied to the decrement in the illustrative table.

The following table provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection.

Life Expectancy for an Age 65 Retiree in Years

Gender	Year of Retirement			
	2020	2025	2030	2035
Male	20.6	20.9	21.3	21.6
Female	22.7	22.8	23.0	23.2

- b. A separate table of mortality rates is used for disabled retirees based on the RP-2014 Disabled Mortality table projected using the AA projection table from the year 2014 and with multipliers based on plan experience. The following are sample rates of the base table:

General Assembly Retirement System Disabled Annuitant Mortality Rates¹

Age	Male	Female
50	2.5494%	1.4884%
55	2.9211%	1.8099%
60	3.3255%	2.1249%
65	3.9606%	2.6075%
70	5.0433%	3.5254%
75	6.7859%	5.1306%
80	9.5770%	7.6295%
85	14.1629%	11.3025%
90	21.6256%	16.5815%
Multiplier	125%	125%

¹The multiplier has been applied to the decrement in the illustrative table.

Asset Valuation Method

The actuarial value of assets is equal to the market value, adjusted for the five-year phase in of the actual investment return in excess of (or less than) the expected investment return on a market value of asset basis. This five-year phase in begins with the investment experience for the fiscal year ending June 30, 2016. The actual return is calculated net of investment expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level dollar amount necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability, on an actuarial value of asset basis, with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

Note, the principle financial measurement calculations in this actuarial valuation, which include the unfunded actuarial accrued liability, funded ratio, contribution rates, and funding period, are based on an actuarial value of assets (smoothed value) basis. The actuarial value of assets is a calculated asset value which may be greater than or less than the market value of assets and is used to dampen some of the volatility in the market value of

assets. As a result, many of these measures would be different if they were determined on a market value of assets basis.

Future Cost-of-Living Increases

No increases are assumed.

Payroll Growth Rate

None assumed.

Other Assumptions

1. The normal cost is increased by \$15,000 to account for administrative expenses that are paid with plan assets.
2. Percent married: 100 percent of active members are assumed to be married.
3. Age difference: Males are assumed to be four years older than their spouses.
4. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an immediate life annuity.
5. Inactive Population: All non-vested members are assumed to take an immediate refund. Members with a vested benefit are assumed to elect a refund or a deferred benefit commencing at age 60, whichever is more valuable at the valuation date.
6. It is assumed there will be no recoveries once disabled.
7. Decrement timing: Decrements of all types are assumed to occur mid-year.
8. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
9. Benefit Service: All active and special contributing members are assumed to accrue one year of eligibility service each year.

Participant Data

Participant data was securely supplied in electronic text files. There were separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, service with the current employer and total vesting service, salary, and employee contribution account balances. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and form of payment code.

Salary supplied for the current year was based on the annualized earnings for the year preceding the valuation date. Assumptions were made to correct for missing or inconsistent data. These had no material impact on the results presented.

General Assembly Retirement System Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	<u>Year Ending June 30, 2019</u>																																			
1. Actuarial value of assets at beginning of year	\$ 34,902																																			
2. Market value of assets at beginning of year	\$ 33,394																																			
3. Net new investments																																				
a. Contributions	\$ 5,966																																			
b. Disbursements	(6,535)																																			
c. Subtotal	(569)																																			
4. Market value of assets at end of year	\$ 34,712																																			
5. Net earnings (Item 4. - Item 2. - Item 3.c.)	\$ 1,887																																			
6. Assumed investment return rate for fiscal year	7.25%																																			
7. Expected return (Item 6. x (Item 2. + 1/2 Item 3.c.))	\$ 2,400																																			
8. Excess return (Item 5. - Item 7.)	\$ (513)																																			
9. Excess return on assets as of June 30, 2019:																																				
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="text-align: center;"><u>Fiscal Year Ending June 30,</u></th> <th style="text-align: center;"><u>Excess Return/(Shortfall)</u></th> <th style="text-align: center;"><u>Percent Deferred</u></th> <th style="text-align: center;"><u>Deferred Amount</u></th> </tr> </thead> <tbody> <tr> <td style="padding-left: 20px;">a.</td> <td style="text-align: center;">2019</td> <td style="text-align: right;">\$ (513)</td> <td style="text-align: center;">80%</td> <td style="text-align: right;">\$ (410)</td> </tr> <tr> <td style="padding-left: 20px;">b.</td> <td style="text-align: center;">2018</td> <td style="text-align: right;">99</td> <td style="text-align: center;">60%</td> <td style="text-align: right;">\$ 59</td> </tr> <tr> <td style="padding-left: 20px;">c.</td> <td style="text-align: center;">2017</td> <td style="text-align: right;">1,130</td> <td style="text-align: center;">40%</td> <td style="text-align: right;">\$ 452</td> </tr> <tr> <td style="padding-left: 20px;">d.</td> <td style="text-align: center;">2016</td> <td style="text-align: right;">(2,645)</td> <td style="text-align: center;">20%</td> <td style="text-align: right;">\$ (529)</td> </tr> <tr> <td style="padding-left: 20px;">e.</td> <td style="text-align: center;">2015</td> <td style="text-align: right;">(6,037)</td> <td style="text-align: center;">0%</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td style="padding-left: 20px;">f.</td> <td style="text-align: center;">Total</td> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$ (428)</td> </tr> </tbody> </table>		<u>Fiscal Year Ending June 30,</u>	<u>Excess Return/(Shortfall)</u>	<u>Percent Deferred</u>	<u>Deferred Amount</u>	a.	2019	\$ (513)	80%	\$ (410)	b.	2018	99	60%	\$ 59	c.	2017	1,130	40%	\$ 452	d.	2016	(2,645)	20%	\$ (529)	e.	2015	(6,037)	0%	\$ -	f.	Total			\$ (428)
	<u>Fiscal Year Ending June 30,</u>	<u>Excess Return/(Shortfall)</u>	<u>Percent Deferred</u>	<u>Deferred Amount</u>																																
a.	2019	\$ (513)	80%	\$ (410)																																
b.	2018	99	60%	\$ 59																																
c.	2017	1,130	40%	\$ 452																																
d.	2016	(2,645)	20%	\$ (529)																																
e.	2015	(6,037)	0%	\$ -																																
f.	Total			\$ (428)																																
10. Actuarial value of assets as of June 30, 2019 (Item 4. - Item 9.f.)	\$ 35,140																																			
11. Expected actuarial value as of June 30, 2019	\$ 36,843																																			
12. Asset gain (loss) for year (Item 10. - Item 11.)	\$ (1,703)																																			
13. Asset gain (loss) as % of the actuarial value of assets	(4.8%)																																			
14. Ratio of actuarial value to market value	101.2%																																			

Judges and Solicitors Retirement System

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the PEBA Board is responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the assumed rate of investment return. The investment return assumption is a prescribed assumption set by the General Assembly in Section 9-16-335 of South Carolina State Code. The current 7.25% return assumption expires on July 1, 2021 and the Board is to submit a proposed return assumption to the Senate Finance Committee and the House Ways and Means Committee for the General Assembly to consider when amending the Statute.

South Carolina State Statute requires that an experience analysis that reviews the economic and demographic assumptions be performed at least once every five years. The assumptions utilized in the June 30, 2019 actuarial valuation are based on the experience study conducted as of June 30, 2015. A 2020 Actuarial Experience Study was recently performed for the period ending June 30, 2019. The PEBA Board has accepted that report as information for possible adoption and recommendations will be first used in the July 1, 2021 actuarial valuation. This most recent Experience Study recommends decreasing the nominal investment return assumption to 7.00% when current statute expires, along with a new set of other economic and demographic assumptions that reflect relatively minor changes.

Following is a summary of the actuarial assumptions and methods used in the July 1, 2019 valuation of the Judges and Solicitors Retirement System for funding purposes and financial reporting purposes.

Investment Rate of Return

The assumed annual investment rate of return of 7.25 percent net of investment expenses is composed of a 2.25 percent inflation component and a 5.00 percent real rate of return, net of investment expenses.

The annual investment return assumption is prescribed in Section 9-16-335 of the South Carolina Code of Laws and as described above, the Retirement System Funding and Administration Act of 2017 lowered the assumed annual rate of return from 7.50 percent to 7.25 percent, effective July 1, 2017.

Rates of Annual Salary Increase

Rates of salary are assumed to increase at an annual rate of 2.75 percent.

Judges and Solicitors Retirement System

Active Member Decrement Rates

- a. Assumed rates of service retirement are shown in the following table. In addition to the rates in the table below, all participants are assumed to retire upon reaching the mandatory retirement age of 72.

Service Based Retirement Rates¹

Years of Service	Male	Female
15-19	10.00%	10.00%
20-24	40.00%	40.00%
25-31	15.00%	15.00%
32+	100.00%	100.00%

¹Retirement rate will be 100% at 31 years of service for solicitors and public defenders.

- b. An abbreviated table with the assumed rates of disability incidence and pre-retirement mortality is shown below. The pre-retirement mortality assumption is based upon the RP-2014 Mortality Table for Employees with applicable multipliers to better reflect anticipated experience and provide margin for future improvement in mortality.

Disability Rates/Pre-Retirement Mortality¹

Age	Disability Incidence Rates		Pre-Retirement Mortality	
	Male	Female	Male	Female
25	0.0419%	0.0458%	0.0460%	0.0147%
30	0.0629%	0.0616%	0.0429%	0.0185%
35	0.0838%	0.0616%	0.0497%	0.0243%
40	0.1572%	0.1074%	0.0597%	0.0337%
45	0.2620%	0.2200%	0.0924%	0.0558%
50	0.4192%	0.3520%	0.1602%	0.0937%
55	0.6812%	0.5720%	0.2649%	0.1422%
60	1.0480%	0.8800%	0.4454%	0.2076%
Multiplier	105%	88%	95%	85%

¹The multiplier has been applied to the decrement in the illustrative table.

- c. There is no active employment withdrawal assumption.

Judges and Solicitors Retirement System

Post Retirement Mortality

- a. Healthy retirees and beneficiaries – The 2016 Public Retirees of South Carolina Mortality Table for Males and the 2016 Public Retirees of South Carolina Mortality Table for Females, both using the AA projection table from the year 2016 with multipliers based on plan experience. The following are sample rates:

Healthy Annuitant Mortality Rates Before Projection¹

Age	Male	Female
50	0.1875%	0.1284%
55	0.2949%	0.2177%
60	0.5394%	0.3765%
65	0.9382%	0.5230%
70	1.4461%	0.8511%
75	2.5019%	1.6363%
80	4.6454%	3.2910%
85	8.4266%	6.2277%
90	14.6319%	10.9026%
Multiplier	92%	98%

¹The multiplier has been applied to the decrement in the illustrative table.

The following table provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection.

Life Expectancy for an Age 65 Retiree in Years

Gender	Year of Retirement			
	2020	2025	2030	2035
Male	21.2	21.5	21.9	22.2
Female	23.6	23.8	24.0	24.1

- b. A separate table of mortality rates is used for disabled retirees based on the RP-2014 Disabled Mortality table projected using the AA projection table from the year 2016 and with multipliers based on plan experience. The following are sample rates:

Judges and Solicitors Retirement System Disabled Annuitant Mortality Rates

Age	Male	Female
50	2.5494%	1.4884%
55	2.9211%	1.8099%
60	3.3255%	2.1249%
65	3.9606%	2.6075%
70	5.0433%	3.5254%
75	6.7859%	5.1306%
80	9.5770%	7.6295%
85	14.1629%	11.3025%
90	21.6256%	16.5815%
Multiplier	125%	125%

Note: The multiplier has been applied to the decrement in the illustrative table.

Asset Valuation Method

The actuarial value of assets is equal to the market value, adjusted for the five-year phase in of the actual investment return in excess of (or less than) the expected investment return on a market value of asset basis. This five-year phase in begins with the investment experience for the fiscal year ending June 30, 2016. The actual return is calculated net of investment expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level percent of payroll necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability, on an actuarial value of asset basis, with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

The calculation of the amortization period takes into account budgeted non-payroll based contributions. Also, the calculation of the amortization period reflects additional contributions the System receives with respect to members in DROP and who are retired-in-place. These contributions are assumed to grow at the same payroll growth rate as for active employees. It is assumed that amortization payments are made monthly at the end of the month.

Note, the principle financial measurement calculations in this actuarial valuation, which include the unfunded actuarial accrued liability, funded ratio, contribution rates, and funding period, are based on an actuarial value of assets (smoothed value) basis. The actuarial value of assets is a calculated asset value, which may be greater than or less than the market value of assets and is used to dampen some of the volatility in the market value of assets. As a result, many of these measures would be different if they were determined on a market value of assets basis.

Future Cost-of-Living Increases

Future benefits are assumed to increase at an annual rate of 2.75 percent.

Payroll Growth Rate

The total annual payroll of active members (including DROP and retired-in-place participants) is assumed to increase at an annual rate of 2.75 percent. This rate represents the underlying expected annual rate of wage inflation and does not anticipate increases in the number of members.

Other Assumptions

1. The normal cost rate is increased by 0.12 percent to account for administrative expenses that are paid with plan assets.
2. Percent married: 95 percent of male and female employees are assumed to be married.
3. Age difference: Males are assumed to be four years older than their spouses.
4. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an immediate life annuity.
5. Inactive Population: All non-vested members are assumed to take an immediate refund. Members with a vested benefit are assumed to elect a deferred benefit commencing at their earliest possible commencement age.
6. There will be no recoveries once disabled.
7. Decrement timing: Decrements of all types are assumed to occur mid-year.
8. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
9. Benefit Service: All active members are assumed to accrue one year of eligibility service each year.

Participant Data

Participant data was securely supplied in electronic text files. There were separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, service with the current employer and total vesting service, salary, and employee contribution account balances. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and form of payment code.

Salary supplied for the current year was based on the annualized earnings for the year preceding the valuation date. Assumptions were made to correct for missing or inconsistent data. These had no material impact on the results presented.

Judges and Solicitors Retirement System Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	Year Ending June 30, 2019																																			
1. Actuarial value of assets at beginning of year	\$ 163,358																																			
2. Market value of assets at beginning of year	\$ 160,036																																			
3. Net new investments																																				
a. Contributions	\$ 14,570																																			
b. Disbursements	(17,946)																																			
c. Subtotal	(3,376)																																			
4. Market value of assets at end of year	\$ 165,843																																			
5. Net earnings (Item 4. - Item 2. - Item 3.c.)	\$ 9,183																																			
6. Assumed investment return rate for fiscal year	7.25%																																			
7. Expected return (Item 6. x (Item 2. + 1/2 Item 3.c.))	\$ 11,480																																			
8. Excess return (Item 5. - Item 7.)	\$ (2,297)																																			
9. Excess return on assets as of June 30, 2019:																																				
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="text-align: center;"><u>Fiscal Year</u> <u>Ending June 30,</u></th> <th style="text-align: center;"><u>Excess</u> <u>Return/(Shortfall)</u></th> <th style="text-align: center;"><u>Percent</u> <u>Deferred</u></th> <th style="text-align: center;"><u>Deferred</u> <u>Amount</u></th> </tr> </thead> <tbody> <tr> <td style="padding-left: 20px;">a.</td> <td style="text-align: center;">2019</td> <td style="text-align: right;">\$ (2,297)</td> <td style="text-align: center;">80%</td> <td style="text-align: right;">\$ (1,838)</td> </tr> <tr> <td style="padding-left: 20px;">b.</td> <td style="text-align: center;">2018</td> <td style="text-align: right;">831</td> <td style="text-align: center;">60%</td> <td style="text-align: right;">\$ 499</td> </tr> <tr> <td style="padding-left: 20px;">c.</td> <td style="text-align: center;">2017</td> <td style="text-align: right;">6,031</td> <td style="text-align: center;">40%</td> <td style="text-align: right;">\$ 2,412</td> </tr> <tr> <td style="padding-left: 20px;">d.</td> <td style="text-align: center;">2016</td> <td style="text-align: right;">(11,747)</td> <td style="text-align: center;">20%</td> <td style="text-align: right;">\$ (2,349)</td> </tr> <tr> <td style="padding-left: 20px;">e.</td> <td style="text-align: center;">2015</td> <td style="text-align: right;">(14,537)</td> <td style="text-align: center;">0%</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td style="padding-left: 20px;">f.</td> <td style="text-align: center;">Total</td> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$ (1,276)</td> </tr> </tbody> </table>		<u>Fiscal Year</u> <u>Ending June 30,</u>	<u>Excess</u> <u>Return/(Shortfall)</u>	<u>Percent</u> <u>Deferred</u>	<u>Deferred</u> <u>Amount</u>	a.	2019	\$ (2,297)	80%	\$ (1,838)	b.	2018	831	60%	\$ 499	c.	2017	6,031	40%	\$ 2,412	d.	2016	(11,747)	20%	\$ (2,349)	e.	2015	(14,537)	0%	\$ -	f.	Total			\$ (1,276)
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f.	Total			\$ (1,276)																																
10. Actuarial value of assets as of June 30, 2019 (Item 4. - Item 9.f.)	\$ 167,119																																			
11. Expected actuarial value as of June 30, 2019	\$ 171,703																																			
12. Asset gain (loss) for year (Item 10. - Item 11.)	\$ (4,584)																																			
13. Asset gain (loss) as % of the actuarial value of assets	(2.7%)																																			
14. Ratio of actuarial value to market value	100.8%																																			

South Carolina National Guard Supplemental Retirement Plan

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the PEBA Board is responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the assumed rate of investment return. The investment return assumption is a prescribed assumption set by the General Assembly in Section 9-16-335 of South Carolina State Code. The current 7.25% return assumption expires on July 1, 2021 and the Board is to submit a proposed return assumption to the Senate Finance Committee and the House Ways and Means Committee for the General Assembly to consider when amending the Statute.

South Carolina State Statute requires that an experience analysis that reviews the economic and demographic assumptions be performed at least once every five years. The assumptions utilized in the June 30, 2019 actuarial valuation are based on the experience study conducted as of June 30, 2015. A 2020 Actuarial Experience Study was recently performed for the period ending June 30, 2019. The PEBA Board has accepted that report as information for possible adoption and recommendations will be first used in the July 1, 2021 actuarial valuation. This most recent Experience Study recommends decreasing the nominal investment return assumption to 7.00% when current statute expires, along with a new set of other economic and demographic assumptions that reflect relatively minor changes.

Following is a summary of the actuarial assumptions and methods used in the July 1, 2019 valuation of the South Carolina National Guard Supplemental Retirement Plan for funding purposes and financial reporting purposes.

Investment Rate of Return

The assumed annual investment rate of return of 7.25 percent net of investment expenses is composed of a 2.25 percent inflation component and a 5.00 percent real rate of return, net of investment expenses.

The annual investment return assumption is prescribed in Section 9-16-335 of the South Carolina Code of Laws and as described above, the Retirement System Funding and Administration Act of 2017 lowered the assumed annual rate of return from 7.50 percent to 7.25 percent, effective July 1, 2017.

Rates of Annual Salary Increase

No increases in salary are assumed. The benefit is not related to pay.

South Carolina National Guard Supplemental Retirement Plan

Active Member Decrement Rates

- a. Assumed rates of service retirement are shown in the following table. Members who retire prior to age 60 are assumed to defer retirement benefits until age 60.

Age and Service Based Retirement Rates¹

Age	Years of Service		
	20 – 24	25 – 29	30 +
Age<60	2.5%	5.0%	100.0%
Age>59	100.0%	100.0%	100.0%

¹Members who reach age 60 with less than 20 years of service are assumed to retire at age 60 without a benefit from the plan.

- b. An abbreviated table with the assumed rates of disability and mortality while employed is shown below. There is no active employment withdrawal assumption.

Disability Rates/Pre-Retirement Mortality¹

Age	Disability Rates		Pre-Retirement Mortality	
	Male	Female	Male	Female
25	0.1740%	0.1740%	0.0460%	0.0164%
30	0.2320%	0.2320%	0.0429%	0.0207%
35	0.4350%	0.4350%	0.0497%	0.0272%
40	0.5800%	0.5800%	0.0597%	0.0376%
45	0.8700%	0.8700%	0.0924%	0.0624%
50	1.0875%	1.0875%	0.1602%	0.1047%
55	0.0000%	0.0000%	0.2649%	0.1589%
60	0.0000%	0.0000%	0.4454%	0.2320%
Multiplier	145%	145%	95%	95%

¹The multiplier has been applied to the decrement in the illustrative table.

South Carolina National Guard Supplemental Retirement Plan Post Retirement Mortality

Retirees and beneficiaries – The 2016 Public Retirees of South Carolina Mortality Table for Males and the 2016 Public Retirees of South Carolina Mortality Table for Females projected using Scale AA projection table from the year 2016 and multipliers based on plan experience. The following are sample rates:

Annuitant Mortality Rates Before Projection

Age	Male	Female
50	0.2548%	0.1454%
55	0.4006%	0.2465%
60	0.7329%	0.4265%
65	1.2748%	0.5924%
70	1.9648%	0.9640%
75	3.3994%	1.8534%
80	6.3116%	3.7276%
85	11.4493%	7.0538%
90	19.8803%	12.3489%
Multiplier	125%	111%

The following table provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection.

Life Expectancy for an Age 65 Retiree in Years

Gender	Year of Retirement			
	2020	2025	2030	2035
Male	18.9	19.3	19.7	20.0
Female	22.7	22.8	23.0	23.2

Asset Valuation Method

The actuarial value of assets is equal to the market value, adjusted for the five-year phase in of the actual investment return in excess of (or less than) the expected investment return on a market value of asset basis. This five-year phase in begins with the investment experience for the fiscal year ending June 30, 2016. The actual return is calculated net of investment expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level dollar amount necessary to fully fund the expected benefits to be earned over the career of

each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability, on an actuarial value of asset basis, with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

Note, the principle financial measurement calculations in this actuarial valuation, which include the unfunded actuarial accrued liability, funded ratio, contribution rates, and funding period, are based on an actuarial value of assets (smoothed value) basis. The actuarial value of assets is a calculated asset value which may be greater than or less than the market value of assets and is used to dampen some of the volatility in the market value of assets. As a result, many of these measures would be different if they were determined on a market value of assets basis.

Future Cost-of-Living Increases

No increases are assumed.

Payroll Growth Rate

None assumed.

Other Assumptions

1. The normal cost includes \$15,000 for plan incurred administrative expenses.
2. There is not a marriage assumption.
3. Decrement timing: Decrements of all types are assumed to occur mid-year.
4. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

Participant Data

Participant data was securely supplied in electronic text files. There were separate files for (i) active, and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, total military service, and total South Carolina National Guard service. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and form of payment code.

Assumptions were made to correct for missing or inconsistent data. These had no material impact on the results presented.

South Carolina National Guard Supplemental Retirement Plan Development of Actuarial Value of Assets

(Amounts expressed in thousands)

		<u>Year Ending June 30, 2019</u>		
1. Actuarial value of assets at beginning of year	\$	29,246		
2. Market value of assets at beginning of year	\$	28,327		
3. Net new investments				
a. Contributions	\$	5,290		
b. Disbursements	\$	<u>(4,550)</u>		
c. Subtotal		740		
4. Market value of assets at end of year	\$	30,683		
5. Net earnings (Item 4. - Item 2. - Item 3.c.)	\$	1,616		
6. Assumed investment return rate for fiscal year		7.25%		
7. Expected return (Item 6. x (Item 2. + 1/2 Item 3.c.))	\$	2,081		
8. Excess return (Item 5. - Item 7.)	\$	(465)		
9. Excess return on assets as of June 30, 2019:				
	<u>Fiscal Year</u>	<u>Excess</u>	<u>Percent</u>	<u>Deferred</u>
	<u>Ending June 30,</u>	<u>Return/(Shortfall)</u>	<u>Deferred</u>	<u>Amount</u>
a.	2019	\$ (465)	80%	(372)
b.	2018	-	60%	-
c.	2017	776	40%	310
d.	2016	(1,884)	20%	(377)
e.	2015	(3,156)	0%	-
f.	Total			<u>\$ (439)</u>
10. Actuarial value of assets as of June 30, 2019 (Item 4. - Item 9.f.)	\$	31,122		
11. Expected actuarial value as of June 30, 2019	\$	32,133		
12. Asset gain (loss) for year (Item 10. - Item 11.)	\$	(1,011)		
13. Asset gain (loss) as % of the actuarial value of assets				(3.2%)
14. Ratio of actuarial value to market value				101.4%

South Carolina Retirement System Summary of Historical Active Membership

July 1,	Number of Employers ²	Active Members		Covered Payroll ¹		Average Annual Pay		Average Age	Average Service
		Number	Percent Increase/ (Decrease)	Amount in Thousands	Percent Increase/ (Decrease)	Amount	Percent Increase/ (Decrease)		
2019	814	200,264	2.1%	\$ 9,272,010	5.4%	\$ 46,299	3.25%	45	10
2018	812	196,184	1.1%	8,797,592	2.4%	44,844	1.23%	45	10
2017	807	193,985	1.6%	8,592,885	4.6%	44,297	2.97%	45	10
2016	812	190,923	1.9%	8,213,042	5.8%	43,018	3.77%	45	10
2015	816	187,318	1.1%	7,765,588	3.0%	41,457	1.86%	45	10
2014	810	185,265	0.3%	7,539,996	1.4%	40,698	1.10%	45	10
2013	808	184,690	(0.6%)	7,434,820	1.1%	40,256	1.65%	45	10
2012	806	185,748	(1.0%)	7,356,231	(4.3%)	39,603	(3.35%)	45	10
2011	803	187,611	(1.4%)	7,687,558	(1.1%)	40,976	0.33%	45	11
2010	800	190,239	(1.1%)	7,769,820	(4.7%)	40,842	1.20%	45	10

¹ Covered payroll is the annualized, projected compensation for the following year and does not include payroll attributable to members in ORP or working retirees.

² Number of employers that cover employees eligible for SCRS benefits and that contributed to the system during the last fiscal year. Although the state is considered the primary government and includes all state agencies as a single employer, for purposes of this schedule, each state agency is reported separately and counted as an employer.

Police Officers Retirement System Summary of Historical Active Membership

July 1,	Number of Employers ²	Active Members		Covered Payroll ¹		Average Annual Pay		Average Age	Average Service
		Number	Percent Increase/ (Decrease)	Amount in Thousands	Percent Increase/ (Decrease)	Amount	Percent Increase/ (Decrease)		
2019	336	27,397	1.1%	\$ 1,378,255	5.5%	\$ 50,307	4.28%	39.4	9.8
2018	333	27,093	0.1%	1,306,961	3.5%	48,240	3.31%	39.4	9.7
2017	332	27,056	1.5%	1,263,314	6.4%	46,693	4.82%	39.4	9.7
2016	313	26,651	0.3%	1,187,195	7.4%	44,546	7.06%	39.5	9.8
2015	312	26,575	(0.5%)	1,105,703	2.7%	41,607	3.15%	39.4	9.7
2014	310	26,697	1.9%	1,076,885	4.2%	40,337	2.27%	39.5	9.5
2013	356	26,194	0.1%	1,033,189	1.4%	39,444	1.31%	39.5	9.4
2012	325	26,179	(1.8%)	1,019,241	(6.3%)	38,934	(4.60%)	39.6	9.5
2011	356	26,650	0.3%	1,087,587	1.0%	40,810	0.72%	39.8	9.6
2010	322	26,568	(0.1%)	1,076,467	(0.7%)	40,517	(0.60%)	39.8	8.7

¹ Covered payroll does not include payroll attributable to working retirees.

² Number of employers that cover employees eligible for PORS benefits and that contributed to the system during the last fiscal year. Although the state is considered the primary government and includes all state agencies as a single employer, for purposes of this schedule, each state agency is reported separately and counted as an employer.

General Assembly Retirement System Summary of Historical Active Membership

July 1,	Number of Employers ²	Active Members		Covered Payroll ¹		Average Annual Pay		Average Age	Average Service
		Number	Percent Increase/ (Decrease)	Amount in Thousands	Percent Increase/ (Decrease)	Amount	Percent Increase/ (Decrease)		
2019	2	69	(16.9%)	\$ 1,570	(15.9%)	\$22,757	1.3%	58.5	17.1
2018	2	83	(4.6%)	1,866	(4.8%)	22,476	(0.3%)	57.8	16.0
2017	2	87	(14.7%)	1,961	(15.3%)	22,535	(0.8%)	56.9	15.1
2016	2	102	(1.9%)	2,316	(0.9%)	22,710	1.0%	56.4	14.3
2015	2	104	(9.6%)	2,338	(10.1%)	22,481	(0.6%)	55.6	13.4
2014	2	115	(3.4%)	2,601	(3.2%)	22,617	0.1%	54.7	12.4
2013	2	119	(30.0%)	2,688	(30.3%)	22,588	(0.4%)	53.7	11.8
2012	2	170	0.0%	3,854	0.0%	22,671	0.0%	53.3	10.8
2011	2	170	0.0%	3,854	0.0%	22,671	0.0%	52.7	9.8
2010	2	170	0.0%	3,854	0.0%	22,671	0.0%	52.3	10.2

¹ For valuations prior to 2013 the annual covered payroll included the payroll of filled and unfilled positions.

² Number of employers that cover employees eligible for GARS benefits and that contributed to the system during the last fiscal year. Although the state is considered the primary government and includes all state agencies as a single employer, for purposes of this schedule, each state agency is reported separately and counted as an employer.

Judges and Solicitors Retirement System Summary of Historical Active Membership

July 1,	Number of Employers ²	Active Members		Covered Payroll		Average Annual Pay		Average Age	Average Service
		Number ¹	Percent Increase/ (Decrease)	Amount in Thousands ¹	Percent Increase/ (Decrease)	Amount	Percent Increase/ (Decrease)		
2019	4	160		\$ 30,346		\$ 189,662	35.80%	57.4	15.4
2018	4	160		22,347		139,666	0.00%	57.1	15.0
2017	4	160		22,347		139,666	(0.14%)	57.4	15.4
2016	4	157		21,958		139,861	4.56%	57.2	15.4
2015	4	157		21,267		133,756	0.28%	56.5	15.1
2014	3	153		20,815		136,048	2.00%	56.3	15.1
2013	3	153		20,407		133,381	(0.07%)	56.0	15.5
2012	3	144		19,221		133,476	3.00%	55.6	15.1
2011	3	144		18,661		129,590	0.00%	55.1	14.3
2010	3	144		18,661		129,590	0.00%	54.9	15.0

¹ Includes filled and unfilled positions and members in DROP or retired-in-place.

² Number of employers that cover employees eligible for JSRS benefits and that contributed to the system during the last fiscal year. Although the state is considered the primary government and includes all state agencies as a single employer, for purposes of this schedule, each state agency is reported separately and counted as an employer.

South Carolina National Guard Supplemental Retirement Plan Summary of Historical Active Membership

July 1,	Number of Employers	Number of Members	Annual Payroll ¹	Average Pay ¹	Percent Increase in Average Pay ¹	Average Age	Average Service
2019	1	12,100	N/A	N/A	N/A	32.2	9.7
2018	1	11,853	N/A	N/A	N/A	32.4	9.9
2017	1	12,116	N/A	N/A	N/A	32.3	9.8
2016	1	12,253	N/A	N/A	N/A	32.2	9.7
2015	1	12,165	N/A	N/A	N/A	32.2	9.7
2014	1	12,221	N/A	N/A	N/A	32.1	9.7
2013	1	11,997	N/A	N/A	N/A	32.0	9.5
2012	1	12,041	N/A	N/A	N/A	31.8	9.2
2011	1	12,271	N/A	N/A	N/A	32.0	9.3
2010	1	12,445	N/A	N/A	N/A	31.9	9.0

¹ Not applicable as this is a non-contributory plan.

South Carolina Retirement System Summary of Active Membership Data

As of July 1, 2019
(Dollar amounts expressed in thousands)

<u>Group</u>	<u>Number¹</u>	<u>Annual Compensation²</u>
State employees	54,180	\$ 2,634,376
Public school employees	89,477	3,775,414
Other agency employees	56,607	2,479,354
Total	200,264	\$ 8,889,144

¹ In addition, there are 191,113 inactive members with contributions still in the system.
The results of the valuation were adjusted to take these members into account.

² Total compensation is the annualized pay for the prior year.

Police Officers Retirement System Summary of Active Membership Data

As of July 1, 2019
(Dollar amounts expressed in thousands)

<u>Group</u>	<u>Number¹</u>	<u>Annual Compensation²</u>
State employees	9,077	\$ 409,165
Public school employees	0	0
Other agency employees	18,320	904,019
Total	27,397	\$ 1,313,184

¹ In addition, there are 17,944 inactive members with contributions still in the system.
The results of the valuation were adjusted to take these members into account.

² Total compensation is the annualized pay for the prior year.

General Assembly Retirement System Summary of Active Membership Data

As of July 1, 2019
(Dollar amounts expressed in thousands)

<u>Number¹</u>	<u>Annual Compensation</u>
69	\$ 1,570

¹There are 36 inactive members with contributions still in the system, and there are 19 special contributors. The results of the valuation were adjusted to take these members into account. Numbers shown above include members receiving retirement benefits while continuing in office.

Judges and Solicitors Retirement System Summary of Active Membership Data

As of July 1, 2019
(Dollar amounts expressed in thousands)

<u>Number¹</u>	<u>Annual Compensation</u>
160	\$ 30,346

¹The number of active members reflects the number of seats, including 21 participants who are either in the DROP or have retired in place and are receiving retirement benefits while continuing in office. There are six inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account.

South Carolina Retirement System Summary of Membership Data

	<u>July 1, 2019</u>	<u>July 1, 2018</u>
1. Service retirees		
a. Number	121,544	119,619
b. Total annual benefits	\$ 2,665,971,508	\$ 2,600,913,042
c. Average annual benefits	\$ 21,934	\$ 21,743
d. Average age at the valuation date	71.0	70.6
2. Disabled retirees		
a. Number	12,394	12,623
b. Total annual benefits	\$ 177,307,639	\$ 179,033,020
c. Average annual benefits	\$ 14,306	\$ 14,183
d. Average age at the valuation date	66.0	65.4
3. Beneficiaries		
a. Number	10,354	10,036
b. Total annual benefits	\$ 131,232,931	\$ 126,197,858
c. Average annual benefits	\$ 12,675	\$ 12,575
d. Average age at the valuation date	67.9	67.9

Police Officers Retirement System Summary of Membership Data

	<u>July 1, 2019</u>	<u>July 1, 2018</u>
1. Service retirees		
a. Number	14,896	14,330
b. Total annual benefits	\$ 321,400,219	\$ 303,834,421
c. Average annual benefits	\$ 21,576	\$ 21,203
d. Average age at the valuation date	65.9	65.6
2. Disabled retirees		
a. Number	2,743	2,735
b. Total annual benefits	\$ 58,132,359	\$ 57,369,555
c. Average annual benefits	\$ 21,193	\$ 20,976
d. Average age at the valuation date	56.2	55.6
3. Beneficiaries		
a. Number	1,455	1,426
b. Total annual benefits	\$ 18,612,756	\$ 18,160,969
c. Average annual benefits	\$ 12,792	\$ 12,736
d. Average age at the valuation date	67.6	67.8

General Assembly Retirement System Summary of Membership Data

	<u>July 1, 2019</u>	<u>July 1, 2018</u>
1. Service retirees		
a. Number	272	272
b. Total annual benefits	\$ 5,396,988	\$ 5,374,962
c. Average annual benefits	\$ 19,842	\$ 19,761
d. Average age at the valuation date	74.6	74.4
2. Disabled retirees		
a. Number	0	0
b. Total annual benefits	\$ 0	\$ 0
c. Average annual benefits	\$ 0	\$ 0
d. Average age at the valuation date	N/A	N/A
3. Beneficiaries		
a. Number	73	71
b. Total annual benefits	\$ 980,750	\$ 980,964
c. Average annual benefits	\$ 13,435	\$ 13,816
d. Average age at the valuation date	73.0	74.0

Judges and Solicitors Retirement System Summary of Membership Data

	<u>July 1, 2019</u>	<u>July 1, 2018</u>
1. Service retirees		
a. Number ¹	156	155
b. Total annual benefits	\$ 22,168,549	\$ 16,157,726
c. Average annual benefits	\$ 142,106	\$ 104,243
d. Average age at the valuation date	72.8	72.2
2. Disabled retirees		
a. Number	0	0
b. Total annual benefits	\$ 0	\$ 0
c. Average annual benefits	\$ 0	\$ 0
d. Average age at the valuation date	N/A	N/A
3. Beneficiaries		
a. Number	61	58
b. Total annual benefits	\$ 2,242,354	\$ 1,683,805
c. Average annual benefits	\$ 36,760	\$ 29,031
d. Average age at the valuation date	70.4	71.0

¹ Includes members in DROP and retired-in-place.

South Carolina National Guard Supplemental Retirement Plan Summary of Membership Data

	July 1, 2019	July 1, 2018
1. Active members		
a. Males	9,671	9,548
b. Females	2,429	2,305
c. Total members	12,100	11,853
d. Average age	32.2	32.4
e. Average service	9.7	9.9
 2. Vested inactive members		
a. Number	1,823	1,895
b. Total annual deferred benefits	\$ 1,471,980	\$ 1,516,920
c. Average annual deferred benefits	\$ 807	\$ 800
 3. Service retirees		
a. Number	4,923	4,821
b. Total annual benefits	\$ 4,464,960	\$ 4,381,020
c. Average annual benefit	\$ 907	\$ 909
d. Average age	71.5	71.2

South Carolina Retirement System

Schedule of Retirants Added to and Removed from Rolls

(Amounts except average allowance expressed in thousands)

July 1,	Added to Rolls ²		Removed from Rolls ³		Rolls End of the Year		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2019	5,753	\$ 130,114	3,739	\$ 61,746	144,292	\$ 2,974,512	2.4%	\$ 20,615
2018	5,841	127,882	3,851	63,463	142,278	2,906,144	2.3%	20,426
2017	6,044	132,616	3,611	57,354	140,288	2,841,725	2.7%	20,256
2016	6,515	133,741	3,300	50,824	137,855	2,766,463	3.1%	20,068
2015	6,640	133,490	3,510	54,660	134,640	2,683,547	3.0%	19,931
2014	7,084	148,060	3,270	49,971	131,510	2,604,716	3.9%	19,806
2013	9,088	204,581	3,319	50,142	127,696	2,506,627	6.6%	19,630
2012	9,523	205,050	2,968	44,099	121,927	2,352,188	7.3%	19,292
2011	6,336	141,242	2,358	31,382	115,372	2,191,236	5.3%	18,993
2010	6,596	151,348	3,216	44,049	111,394	2,081,376	5.4%	18,685

² Annual benefits added to rolls includes the benefit adjustments provided to continuing retirees.

³ The removed from rolls count does not include members who are replaced by beneficiaries.

Police Officers Retirement System

Schedule of Retirants Added to and Removed from Rolls

(Amounts except average allowance expressed in thousands)

July 1,	Added to Rolls ²		Removed from Rolls ³		Rolls End of the Year		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2019	990	\$ 25,450	387	\$ 6,670	19,094	\$ 398,145	5.0%	\$ 20,852
2018	983	24,066	379	6,621	18,491	379,365	4.8%	20,516
2017	987	22,709	388	6,662	17,887	361,921	4.6%	20,234
2016	928	19,940	349	5,394	17,288	345,874	4.4%	20,007
2015	968	19,767	362	6,076	16,709	331,329	4.3%	19,829
2014	818	16,881	332	5,650	16,103	317,638	3.7%	19,725
2013	1,278	27,584	314	5,106	15,617	306,407	7.9%	19,620
2012	1,566	34,086	271	4,143	14,653	283,929	11.8%	19,377
2011	1,042	22,580	250	2,970	13,358	253,986	8.4%	19,014
2010	943	21,877	327	5,000	12,566	234,376	7.8%	18,652

² Annual benefits added to rolls includes the benefit adjustments provided to continuing retirees.

³ The removed from rolls count does not include members who are replaced by beneficiaries.

General Assembly Retirement System

Schedule of Retirants Added to and Removed from Rolls

(Amounts except average allowance expressed in thousands)

July 1,	Added to Rolls ²		Removed from Rolls ³		Rolls End of the Year		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2019	19	\$ 290	17	\$ 268	345	\$ 6,378	0.3%	\$ 18,486
2018	4	55	15	231	343	6,356	-2.7%	18,530
2017	18	345	22	427	354	6,532	-1.2%	18,451
2016	7	109	11	161	358	6,614	-0.8%	18,475
2015	15	262	8	193	362	6,666	1.1%	18,414
2014	12	200	20	358	355	6,596	-2.3%	18,581
2013	22	444	17	353	363	6,754	1.4%	18,606
2012	16	251	11	130	358	6,663	1.8%	18,611
2011	12	238	5	108	353	6,542	2.0%	18,534
2010	7	148	14	261	346	6,412	-1.7%	18,532

² Annual benefits added to rolls includes benefit adjustments provided to continuing retirees.

³ The removed from rolls count does not include members who are replaced by beneficiaries.

Judges and Solicitors Retirement System

Schedule of Retirants Added to and Removed from Rolls¹

(Amounts except average allowance expressed in thousands)

July 1,	Added to Rolls ²		Removed from Rolls ³		Rolls End of the Year		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2019	8	\$ 6,828	4	\$ 259	217	\$ 24,411	36.8%	\$ 112,493
2018	11	734	11	792	213	17,842	-0.3%	83,765
2017	7	535	4	352	213	17,900	1.0%	84,038
2016	10	1,355	6	300	210	17,717	6.3%	84,367
2015	8	757	6	497	206	16,662	1.6%	80,883
2014	7	637	4	192	204	16,402	2.8%	80,402
2013	10	279	9	42	201	15,957	1.5%	79,388
2012	6	912	4	184	200	15,720	4.9%	78,600
2011	9	827	5	196	198	14,992	4.4%	75,717
2010	18	1,210	8	593	194	14,361	4.5%	74,025

¹ Includes participants who have retired in place.

² Annual benefits added to rolls includes benefit adjustments provided to continuing retirees.

³ The removed from rolls count does not include members who are replaced by beneficiaries.

South Carolina National Guard Supplemental Retirement Plan Schedule of Retirants Added to and Removed from Rolls

(Amounts except average allowance expressed in thousands)

July 1,	Added to Rolls		Removed from Rolls		Rolls End of the Year		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2019	241	\$ 213	139	\$ 129	4,923	\$ 4,465	1.9%	\$ 907
2018	192	174	160	150	4,821	4,381	0.6%	909
2017	222	197	142	137	4,789	4,357	1.4%	910
2016	195	172	133	125	4,709	4,297	1.1%	912
2015	155	142	136	122	4,647	4,250	0.5%	915
2014	195	165	108	103	4,628	4,230	1.5%	914
2013	244	211	122	116	4,541	4,168	2.3%	918
2012	259	228	92	87	4,419	4,073	3.6%	922
2011	399	351	98	93	4,252	3,932	7.0%	925
2010	267	237	101	99	3,951	3,674	3.9%	930

Schedule of Funding Progress¹

(Amounts expressed in thousands)

SCRS	July 1,	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll ²	UAAL as % of Payroll
	2019	\$ 27,443,804	\$ 50,438,807	\$ 22,995,003	54.4%	\$ 9,272,010	248.0%
	2018	27,030,937	49,104,763	22,073,826	55.0%	9,183,081	240.4%
	2017	27,241,570	48,374,725	21,133,155	56.3%	8,592,885	245.9%
	2016	27,293,968	45,859,906	18,565,938	59.5%	8,213,042	226.1%
	2015	27,365,921	44,119,176	16,753,255	62.0%	7,765,588	215.7%
	2014	26,910,740	42,889,614	15,978,874	62.7%	7,539,996	211.9%
	2013	25,753,068	41,196,062	15,442,994	62.5%	7,434,820	207.7%
	2012	25,540,749	39,457,708	13,916,959	64.7%	7,356,231	189.2%
	2011	25,604,823	38,011,610	12,406,787	67.4%	7,687,558	161.4%
	2010	25,400,331	38,774,029	13,373,698	65.5%	7,769,820	172.1%

PORS	July 1,	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll ²	UAAL as % of Payroll
	2019	\$ 4,852,573	\$ 7,737,415	\$ 2,884,842	62.7%	\$ 1,378,255	209.3%
	2018	4,654,193	7,378,084	2,723,891	63.1%	1,306,961	208.4%
	2017	4,480,894	7,109,612	2,628,718	63.0%	1,263,314	208.1%
	2016	4,354,853	6,567,397	2,212,544	66.3%	1,187,195	186.4%
	2015	4,266,794	6,162,095	1,895,301	69.2%	1,105,703	171.4%
	2014	4,105,308	5,905,828	1,800,520	69.5%	1,076,885	167.2%
	2013	3,922,041	5,663,756	1,741,715	69.2%	1,033,189	168.6%
	2012	3,808,934	5,357,492	1,548,558	71.1%	1,019,241	151.9%
	2011	3,728,241	5,122,501	1,394,260	72.8%	1,087,587	128.2%
	2010	3,612,700	4,850,457	1,237,757	74.5%	1,076,467	115.0%

¹ Funding progress for July 1, 2011, valuation adjusted to reflect pension reform legislation in 2012.

² Covered payroll does not include payroll attributable to members in State ORP or working retirees.

Effective July 1, 2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption, rate of salary increases, payroll growth assumption, post-retirement mortality assumption for all groups, retirement rates and termination rates were revised for both SCRS and PORS. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for both SCRS and PORS. In addition, there were minor changes to the rates of disability incidence for SCRS.

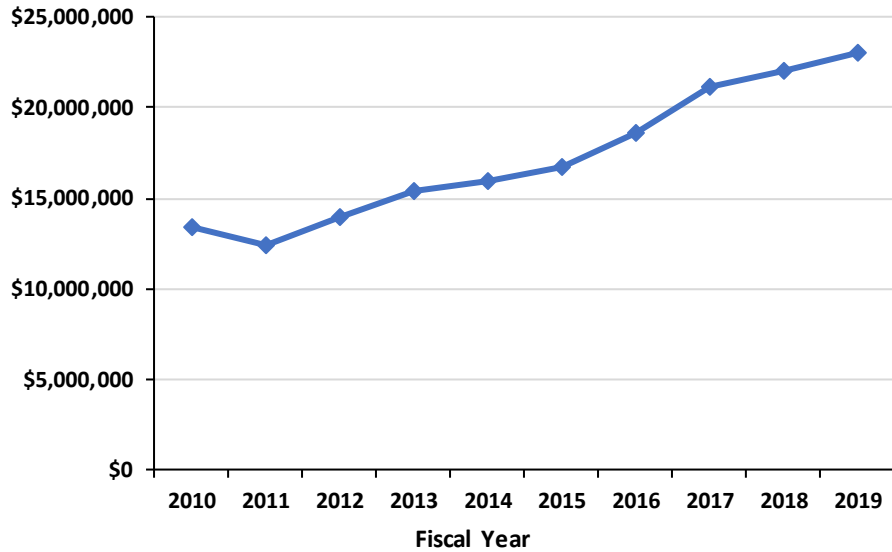
Effective July 1, 2012, disability and retirement rates were updated to more appropriately reflect the anticipated plan experience as a result of the legislation which resulted in substantial changes to the benefit provisions of both SCRS and PORS.

Effective July 1, 2016, actuarial assumptions were changed as a result of a 5-year experience study. The inflation assumption, rate of salary increases, payroll growth assumption, post-retirement mortality tables and pre-retirement mortality assumption were revised for both SCRS and PORS. The actuarial valuation of asset method was changed such that each year's investment gain or loss (determined on a market value of asset basis) is recognized over a closed five-year period at the rate of 20% per year for both SCRS and PORS. In addition, there were changes to the rates of withdrawal and retirement for SCRS and changes to the rates of retirement and disability for PORS.

Effective July 1, 2017, the Retirement System Funding and Administration Act of 2017 became law. The legislation lowered the retirement systems' assumed rate of return from 7.50 percent to 7.25 percent and reduced the maximum amortization period for the retirement systems from 30 years to 20 years over a ten-year schedule.

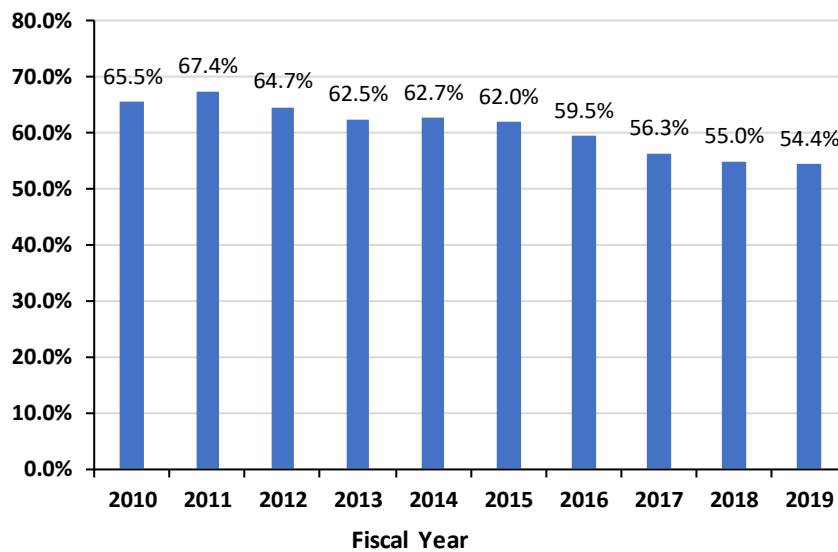
South Carolina Retirement System Funding Progress with Funded Ratios¹ Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

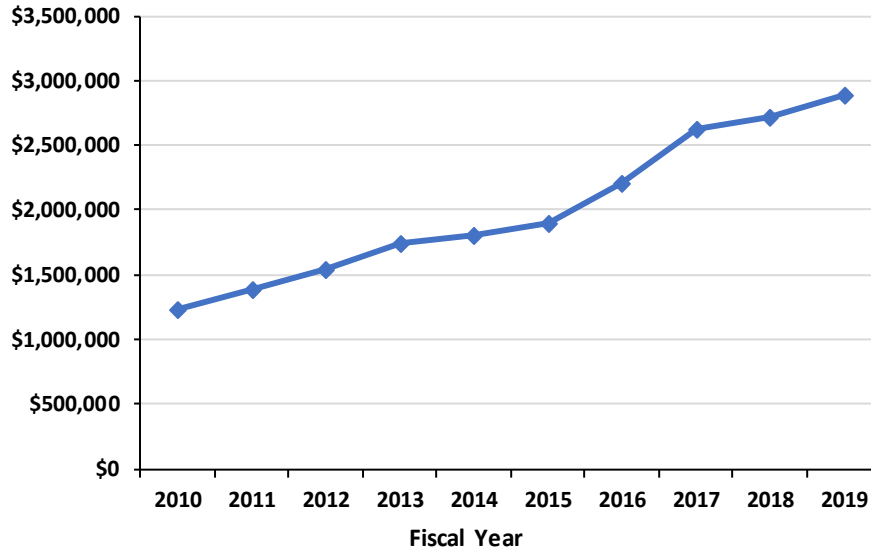
(Actuarial assets as a percentage of actuarial accrued liabilities)



¹ A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' and Nonemployer's Contributions.

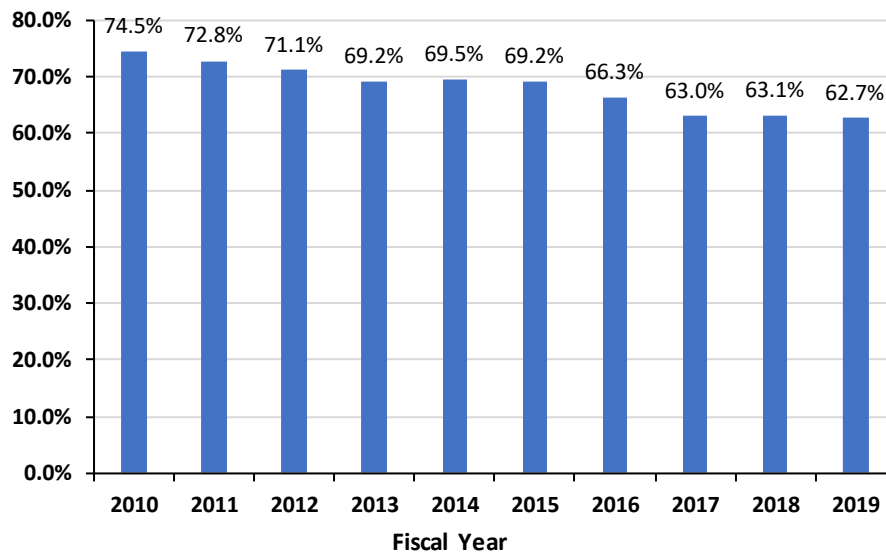
Police Officers Retirement System Funding Progress with Funded Ratios¹ Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)



¹ A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' and Nonemployer's Contributions.

Schedule of Funding Progress

(Amounts expressed in thousands)

GARS	July 1,	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll ¹	UAAL as % of Payroll
	2019	\$ 35,140	\$ 72,055	\$ 36,915	48.8%	\$ 1,570	2,351.3%
	2018	34,902	73,004	38,102	47.8%	1,866	2,041.9%
	2017	34,887	74,855	39,968	46.6%	1,961	2,038.2%
	2016	35,926	74,996	39,070	47.9%	2,316	1,686.9%
	2015	37,312	74,509	37,197	50.1%	2,338	1,591.0%
	2014	37,646	74,514	36,868	50.5%	2,601	1,417.5%
	2013	38,033	75,639	37,606	50.3%	2,688	1,399.0%
	2012	39,233	74,332	35,099	52.8%	3,854	910.7%
	2011	41,484	74,604	33,120	55.6%	3,854	859.4%
	2010	43,712	68,671	24,959	63.7%	3,854	647.6%

¹ For valuations prior to 2013, the annual covered payroll included the payroll of filled and unfilled positions.

JSRS	July 1,	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll	UAAL as % of Payroll
	2019	\$ 167,119	\$ 399,746	\$ 232,627	41.8%	\$ 30,346	766.6%
	2018	163,358	293,815	130,457	55.6%	22,347	583.8%
	2017	160,189	295,630	135,441	54.2%	22,347	606.1%
	2016	158,837	283,304	124,467	56.1%	21,958	566.8%
	2015	157,983	269,675	111,692	58.6%	21,267	525.2%
	2014	152,839	264,293	111,454	57.8%	20,815	535.4%
	2013	147,648	256,988	109,340	57.5%	20,407	535.8%
	2012	145,604	251,729	106,125	57.8%	19,221	552.1%
	2011	144,927	243,514	98,587	59.5%	18,661	528.3%
	2010	142,871	215,823	72,952	66.2%	18,661	390.9%

Effective July 1, 2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption and the mortality assumption were revised for both GARS and JSRS. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for both GARS and JSRS.

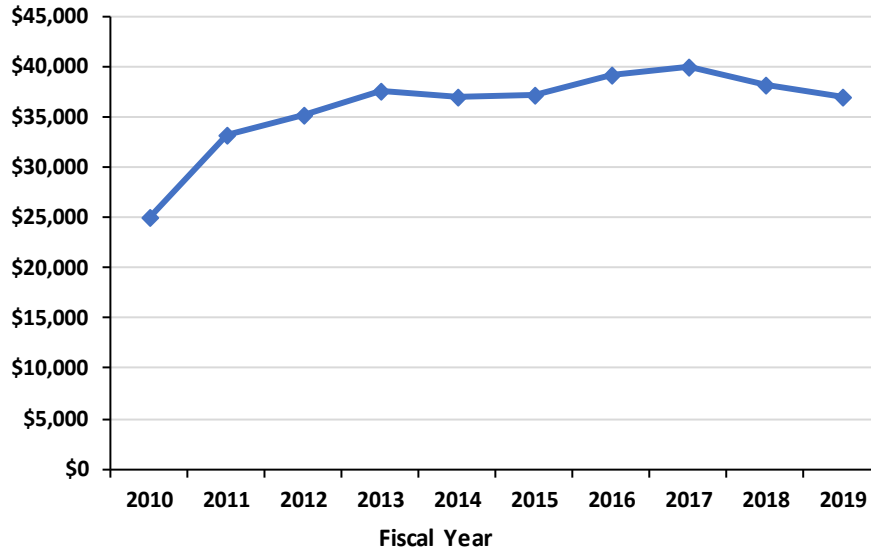
Effective July 1, 2012, legislation increased the member contribution rate from 10 percent of pay to 11 percent of pay effective January 1, 2013 for GARS members. The legislation also closed GARS to new members. Newly elected members of the General Assembly on or after the general election of 2012 shall elect to become members of SCRS, State ORP or non-membership.

Effective July 1, 2016, actuarial assumptions were changed as a result of a 5 year experience study. The inflation assumption, post-retirement mortality tables and pre-retirement mortality assumption were revised for both GARS and JSRS. The actuarial valuation of asset method was changed such that each year's investment gain or loss (determined on a market value of asset basis) is recognized over a closed five-year period at the rate of 20% per year for both GARS and JSRS. In addition, there were changes to the disability rates for GARS and changes to the rate of salary increases, COLA, payroll growth assumption, rates of retirement and disability for JSRS.

Effective July 1, 2017, the Retirement System Funding and Administration Act of 2017 became law. The legislation lowered the retirement systems' assumed rate of return from 7.50 percent to 7.25 percent.

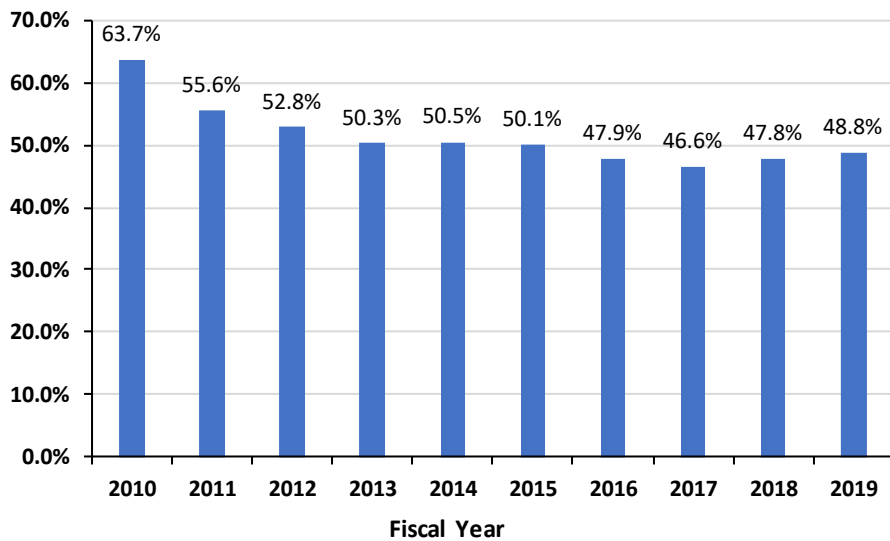
General Assembly Retirement System Funding Progress with Funded Ratios¹ Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

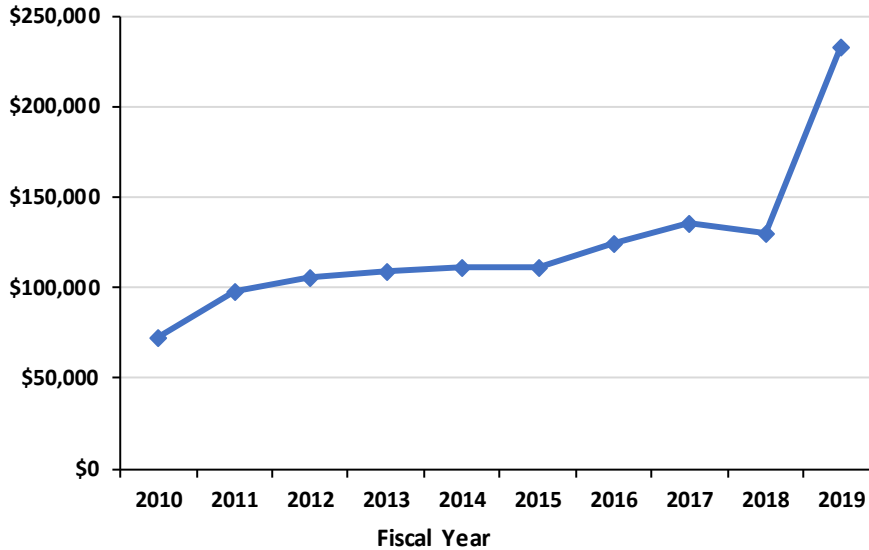
(Actuarial assets as a percentage of actuarial accrued liabilities)



¹ A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' and Nonemployer's Contributions.

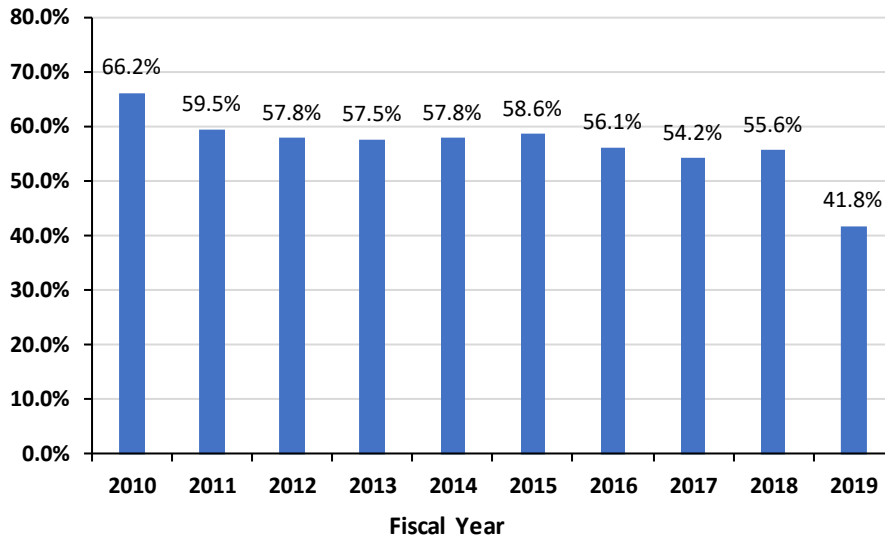
Judges and Solicitors Retirement System Funding Progress with Funded Ratios¹ Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)



¹ A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' and Nonemployer's Contributions.

Schedule of Funding Progress

(Amounts expressed in thousands)

SCNG	July 1,	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll	UAAL as % of Payroll
	2019	\$ 31,122	\$ 66,523	\$ 35,401	46.8%	N/A	N/A
	2018	29,246	66,192	36,946	44.2%	N/A	N/A
	2017	27,807	66,506	38,699	41.8%	N/A	N/A
	2016	26,751	64,445	37,694	41.5%	N/A	N/A
	2015	25,727	62,141	36,414	41.4%	N/A	N/A
	2014	24,029	62,100	38,071	38.7%	N/A	N/A
	2013	22,208	61,576	39,368	36.1%	N/A	N/A
	2012	20,814	60,942	40,128	34.2%	N/A	N/A
	2011	20,138	60,388	40,250	33.3%	N/A	N/A
	2010	19,458	54,153	34,695	35.9%	N/A	N/A

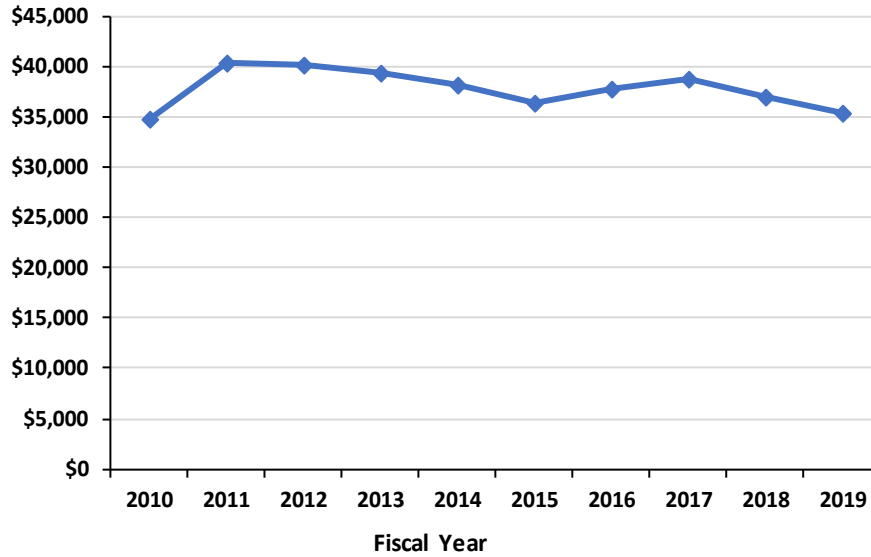
Effective July 1, 2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption and the mortality assumption were revised for SCNG. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for SCNG.

Effective July 1, 2016, actuarial assumptions were changed as a result of a 5 year experience study. The inflation assumption, rate of salary increases, payroll growth assumption, post-retirement mortality tables, pre-retirement mortality assumption and rates of withdrawal, disability and retirement were revised for SCNG. The actuarial valuation of asset method was changed such that each year's investment gain or loss (determined on a market value of asset basis) is recognized over a closed five-year period at the rate of 20% per year for SCNG.

Effective July 1, 2017, the Retirement System Funding and Administration Act of 2017 became law. The legislation lowered the retirement systems' assumed rate of return from 7.50 percent to 7.25 percent.

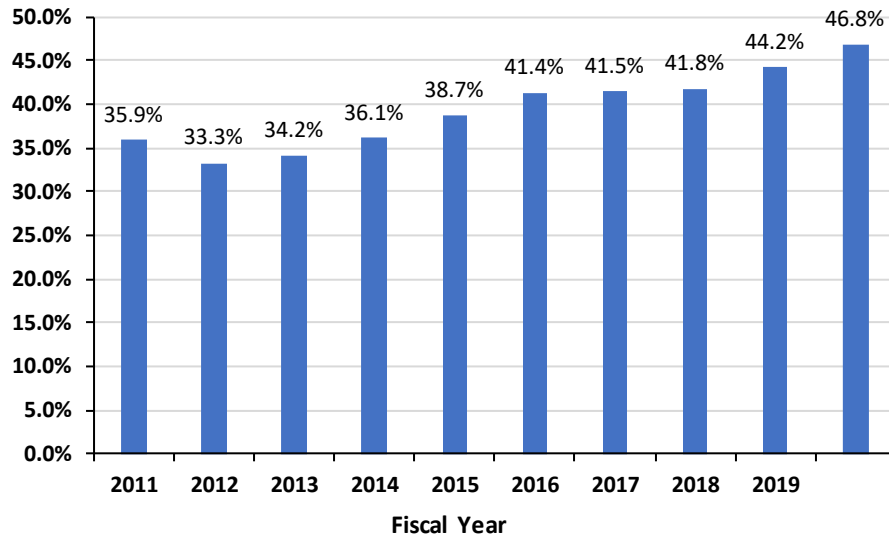
South Carolina National Guard Supplemental Retirement Plan Funding Progress with Funded Ratios¹ Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)



¹ A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' and Nonemployer's Contributions.

South Carolina Retirement System Reconciliation of UAAL

As of July 1, 2019
(Amounts expressed in thousands)

Item	<u>Amount of Increase/Decrease</u>
Beginning of year UAAL	\$ 22,073,826
Interest on UAAL	1,600,352
Amortization payment	(1,437,792)
Assumption/method changes	0
Asset experience	847,002
Salary experience	(45,360)
Other liability experience	(43,025)
Legislative changes	0
End of year UAAL	<u>\$ 22,995,003</u>

Police Officers Retirement System Reconciliation of UAAL

As of July 1, 2019
(Amounts expressed in thousands)

Item	<u>Amount of Increase/Decrease</u>
Beginning of year UAAL	\$ 2,723,891
Interest on UAAL	197,482
Amortization payment	(198,126)
Assumption/method changes	0
Asset experience	122,108
Salary experience	14,408
Other liability experience	25,079
Legislative changes	0
End of year UAAL	<u>\$ 2,884,842</u>

General Assembly Retirement System Reconciliation of UAAL

As of July 1, 2019
(Amounts expressed in thousands)

Item	Amount of Increase/Decrease
Beginning of year UAAL	\$ 38,102
Interest on UAAL	2,762
Amortization payment	(5,725)
Assumption/method changes	0
Asset experience	1,703
Other liability experience	73
Legislative changes	0
End of year UAAL	\$ 36,915

Judges and Solicitors Retirement System Reconciliation of UAAL

As of July 1, 2019
(Amounts expressed in thousands)

Item	Amount of Increase/Decrease
Beginning of year UAAL	\$ 130,457
Interest on UAAL	9,458
Amortization payment	(9,032)
Assumption/method changes	0
Asset experience	4,584
COLA	64,361
Salary experience	25,686
Other liability experience	7,113
Legislative changes	0
End of year UAAL	\$ 232,627

South Carolina National Guard Supplemental Retirement Plan Reconciliation of UAAL

As of July 1, 2019
(Amounts expressed in thousands)

Item	Amount of <u>Increase/Decrease</u>
Beginning of year UAAL	\$ 36,946
Interest on UAAL	2,679
Amortization payment	(4,652)
Assumption/method changes	0
Asset experience	1,011
Other liability experience	(583)
Legislative changes	0
End of year UAAL	<u>\$ 35,401</u>

Solvency Test

(Amounts expressed in thousands)

SCRS	July 1,	Actuarial Accrued Liability				Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
		Active Member Contributions	Retirants & Beneficiaries	Active & Inactive Members (Employer Financed)	Active		Retirants	ER Financed	
		2019	\$ 9,106,401	\$ 31,051,873	\$ 10,280,533		\$ 27,443,804	100%	59.1%
2018	8,501,051	30,760,223	9,843,489	27,030,937	100%	60.2%	0%		
2017	7,938,850	30,745,598	9,690,277	27,241,570	100%	62.8%	0%		
2016	7,447,442	29,830,649	8,581,815	27,293,968	100%	66.5%	0%		
2015	7,054,277	28,645,954	8,418,945	27,365,921	100%	70.9%	0%		
2014	6,717,327	27,942,644	8,229,643	26,910,740	100%	72.3%	0%		
2013	6,491,895	26,548,472	8,155,695	25,753,068	100%	72.6%	0%		
2012	6,459,192	24,732,406	8,266,110	25,540,749	100%	77.2%	0%		
2011	6,472,646	23,160,658	8,378,306	25,604,823	100%	82.6%	0%		
2010	6,222,854	22,585,243	9,965,932	25,400,331	100%	84.9%	0%		
PORS	2019	\$ 1,179,539	\$ 4,514,202	\$ 2,043,674	\$ 4,852,573	100%	81.4%	0.0%	
	2018	1,104,572	4,307,805	1,965,707	4,654,193	100%	82.4%	0.0%	
	2017	1,034,549	4,136,503	1,938,560	4,480,894	100%	83.3%	0.0%	
	2016	968,722	3,881,514	1,717,161	4,354,853	100%	87.2%	0.0%	
	2015	905,768	3,624,713	1,631,614	4,266,794	100%	92.7%	0.0%	
	2014	850,383	3,490,161	1,565,284	4,105,308	100%	93.3%	0.0%	
	2013	793,414	3,385,496	1,484,846	3,922,041	100%	92.4%	0.0%	
	2012	773,710	3,118,016	1,465,766	3,808,934	100%	97.3%	0.0%	
	2011	786,724	2,784,144	1,551,633	3,728,241	100%	100.0%	10.1%	
	2010	758,695	2,577,772	1,513,990	3,612,700	100%	100.0%	18.2%	

Effective July 1, 2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption, rate of salary increases, payroll growth assumption, post-retirement mortality assumption for all groups, retirement rates and termination rates were revised for both SCRS and PORS. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for both SCRS and PORS. In addition, there were minor changes to the rates of disability incidence for SCRS.

July 1, 2011, valuation adjusted to reflect pension reform legislation in 2012.

Effective July 1, 2012, disability and retirement rates were updated to more appropriately reflect the anticipated plan experience as a result of the legislation which resulted in substantial changes to the benefit provisions of both SCRS and PORS.

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Effective July 1, 2017, the Retirement System Funding and Administration Act of 2017 became law. The legislation lowered the retirement systems' assumed rate of return from 7.50 percent to 7.25 percent and reduced the maximum amortization period for the retirement systems from 30 years to 20 years over a ten-year schedule.

Solvency Test

(Amounts expressed in thousands)

GARS	July 1,	Actuarial Accrued Liability				Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
		Active Member Contributions	Retirants & Beneficiaries	Active & Inactive Members (Employer Financed)	Active		Retirants	ER Financed	
	2019	\$ 6,661	\$ 55,781	\$ 9,613	\$ 35,140	100%	51.1%	0%	
	2018	7,066	55,749	10,189	34,902	100%	49.9%	0%	
	2017	6,852	58,042	9,961	34,887	100%	48.3%	0%	
	2016	7,334	57,314	10,348	35,926	100%	49.9%	0%	
	2015	7,295	58,384	8,830	37,312	100%	51.4%	0%	
	2014	7,358	58,098	9,058	37,646	100%	52.1%	0%	
	2013	7,164	59,592	8,883	38,033	100%	51.8%	0%	
	2012	7,267	58,213	8,852	39,233	100%	54.9%	0%	
	2011	7,100	58,291	9,213	41,484	100%	59.0%	0%	
	2010	7,265	53,486	7,920	43,712	100%	68.1%	0%	
JSRS	2019	\$ 30,289	\$ 268,747	\$ 100,710	\$ 167,119	100%	50.9%	0.0%	
	2018	28,259	198,893	66,663	163,358	100%	67.9%	0.0%	
	2017	26,703	203,030	65,897	160,189	100%	65.7%	0.0%	
	2016	25,082	200,323	57,899	158,837	100%	66.8%	0.0%	
	2015	24,650	186,481	58,544	157,983	100%	71.5%	0.0%	
	2014	22,926	184,625	56,742	152,839	100%	70.4%	0.0%	
	2013	21,369	178,526	57,093	147,648	100%	70.7%	0.0%	
	2012	20,005	177,483	54,241	145,604	100%	70.8%	0.0%	
	2011	18,864	169,841	54,809	144,927	100%	74.2%	0.0%	
	2010	17,816	150,696	47,311	142,871	100%	83.0%	0.0%	

Effective July 1, 2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption and the mortality assumption were revised for both GARS and JSRS. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for both GARS and JSRS.

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Effective July 1, 2016, actuarial assumptions were changed as a result of a 5 year experience study. The inflation assumption, post-retirement mortality tables and pre-retirement mortality assumption were revised for both GARS and JSRS. The actuarial valuation of asset method was changed such that each year's investment gain or loss (determined on a market value of asset basis) is recognized over a closed five-year period at the rate of 20% per year for both GARS and JSRS. In addition, there were changes to the disability rates for GARS and changes to the rate of salary increases, COLA, payroll growth assumption, rates of retirement and disability for JSRS.

Effective July 1, 2017, the Retirement System Funding and Administration Act of 2017 became law. The legislation lowered the retirement systems' assumed rate of return from 7.50 percent to 7.25 percent.

Solvency Test

(Amounts expressed in thousands)

		Actuarial Accrued Liability					Portion of Aggregate Accrued Liabilities Covered by Assets		
SCNG	July 1,	Active Member	Retirants & Beneficiaries	Active & Inactive Members (Employer Financed)	Valuation Assets	Active	Retirants	ER Financed	
		Contributions							
	2019	\$ 0	\$ 35,589	\$ 30,934	\$ 31,122	N/A	87.4%	0%	
	2018	0	35,132	31,060	29,246	N/A	83.2%	0%	
	2017	0	35,391	31,115	27,807	N/A	78.6%	0%	
	2016	0	34,562	29,883	26,751	N/A	77.4%	0%	
	2015	0	33,521	28,620	25,727	N/A	76.7%	0%	
	2014	0	33,739	28,361	24,029	N/A	71.2%	0%	
	2013	0	33,590	27,986	22,208	N/A	66.1%	0%	
	2012	0	32,989	27,953	20,814	N/A	63.1%	0%	
	2011	0	32,038	28,350	20,138	N/A	62.9%	0%	
	2010	0	28,492	25,661	19,458	N/A	68.3%	0%	

Effective July 1, 2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption and the mortality assumption were revised for SCNG. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for SCNG.

Effective July 1, 2016, actuarial assumptions were changed as a result of a 5 year experience study. The inflation assumption, rate of salary increases, payroll growth assumption, post-retirement mortality tables, pre-retirement mortality assumption and rates of withdrawal, disability and retirement were revised for SCNG. The actuarial valuation of asset method was changed such that each year's investment gain or loss (determined on a market value of asset basis) is recognized over a closed five-year period at the rate of 20% per year for SCNG.

Effective July 1, 2017, the Retirement System Funding and Administration Act of 2017 became law. The legislation lowered the retirement systems' assumed rate of return from 7.50 percent to 7.25 percent.

Summary of Basic Provisions

As of July 1, 2019

SCRS	PORS	GARS	JSRS	SCNG
1. Membership				
<p>All permanent, full-time and part-time employees of covered employers must join unless specifically exempted by statute or are eligible and elect to participate in the State ORP.</p> <p>Individuals first elected to serve in the General Assembly in the general election in November 2012 or after must elect membership in either SCRS or State ORP or elect to be a nonmember.</p>	<p>To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property, and detect crimes in the state; to prevent and control property destruction by fire; be a coroner or deputy coroner in a full-time permanent position; or be a peace officer employed by the SC Department of Corrections, the SC Department of Juvenile Justice, or the SC Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute.</p>	<p>All members of the General Assembly who acquired office prior to the 2012 general election are required to participate, unless exempted by Statute. Members with eight (8) or more years of credited service that cease membership in the General Assembly may elect to continue earning future service in the system by contributing the required membership contributions (i.e. special contributing member).</p> <p>Closed to new members. Individuals first elected to serve in the General Assembly in the general election in November 2012 or after must elect membership in either SCRS or State ORP or elect to be a nonmember.</p>	<p>Membership is mandatory upon taking office as Chief Justice of the South Carolina Supreme Court, Associate Justice of the South Carolina Supreme Court, Court of Appeals Judge, Circuit Court Judge, Family Court Judge, Administrative Law Judge, Solicitor or Circuit Public Defender, prior to age 72.</p>	<p>Individuals serving in the South Carolina National Guard.</p>
2. Employee Contributions				
<p>Class II 9.00% of earnable compensation</p> <p>Class III 9.00% of earnable compensation</p>	<p>Class II 9.75% of earnable compensation</p> <p>Class III 9.75% of earnable compensation</p>	<p>11% of earnable compensation</p>	<p>10% of earnable compensation</p>	<p>Not applicable as this is a non-contributory plan</p>

SCRS	PORS	GARS	JSRS	SCNG
3. Employer Contributions				
Class II & III 15.41% of earnable compensation	Class II & III 17.84% of earnable compensation	\$6,329,000 paid annually	62.94% of earnable compensation	Annual lump-sum appropriation of \$5,289,727
Death Benefit Program 0.15% of earnable compensation	Death Benefit Program 0.20% of earnable compensation	Death Benefit Program Included within annual payment	Death Benefit Program Included within employer contribution	Death Benefit Program Not applicable
Accidental Death Program Not applicable	Accidental Death Program 0.20% of earnable compensation	Accidental Death Program Not applicable	Accidental Death Program Not applicable	Accidental Death Program Not applicable
4. Requirements for Service Annuity				
Class II 5 years earned service The member is entitled to a deferred reduced annuity at age 60.	Class II 5 years earned service The member is entitled to a deferred annuity at age 55.	8 years of service The member is entitled to a deferred annuity at age 60.	Members are vested in the system with 10 years earned service in position of judge; 8 years earned service in position of solicitor or circuit public defender. For vested members who joined prior to 7/1/2004, member is eligible for a deferred annuity at age 55. For members who joined after 6/30/2004, member is eligible for a deferred annuity at age 65.	20 years total creditable military service, at least 15 of which must have been served in the South Carolina National Guard. Additionally, the last 10 years of service must have been served in the South Carolina National Guard.
Class III 8 years earned service The member is entitled to a deferred reduced annuity at age 60.	Class III 8 years earned service The member is entitled to a deferred annuity at age 55.			
5. Normal Retirement Age				
Not applicable	Not applicable	Not applicable	Age 60	Not applicable
6. Requirements for Full Service Retirement				
Class II Age 65 with 5 years of service or 28 years of credited service. The member must have a minimum of five years of earned service to qualify for retirement.	Class II Age 55 with 5 years of service or 25 years of credited service. The member must have a minimum of five years of earned service to qualify for retirement.	Age 60 or 30 years of service Age 70 or 30 years of service while continuing to serve in the General Assembly	Age 70 with 15 years of service Age 65 with 20 years of service 25 years of service as judge regardless of age 24 years of service as solicitor or circuit public defender regardless of age Age 65 with 4 years earned service as judge or solicitor and at least 25 years other service with the state if a member as of 6/30/2004.	Age 60 provided the member was honorably discharged from active duty with at least 20 years of total creditable military service. Of that 20 years of service, 15 years, and the final 10 years, must have been served in the South Carolina National Guard.
Class III Age 65 or meet the rule of 90 requirement. This means that the member's age plus the years of service must add up to a total of at least 90. The member must have a minimum of 8 years of earned service to qualify for retirement.	Class III Age 55 or 27 years of credited service. The member must have a minimum of 8 years of earned service to qualify for retirement.			

SCRS	PORS	GARS	JSRS	SCNG
7. Early Retirement				
<p>Class II Age 60 with 5% reduction for each year of age under age 65</p> <p>Age 55 with 25 years of service, reduced 4% for each year of service under 28.</p> <p>The member must have a minimum of five years of earned service to qualify for early retirement.</p> <p>Class III Age 60 with 5% reduction for each year under age 65</p> <p>The member must have a minimum of eight years of earned service to qualify for early retirement.</p>	Not applicable	Age 60 with 8 years of service credit	<p>Members are vested in the system with 10 years earned service in position of judge; 8 years earned service in position of solicitor or circuit public defender.</p> <p>For vested members who joined prior to 7/1/2004, member is eligible for a deferred annuity at age 55. For members who joined after 6/30/2004, member is eligible for a deferred annuity at age 65.</p>	Not applicable
8. Formula for Normal Service Retirement				
<p>Class II 1.82% of Average Final Compensation (AFC) times years of credited service (annual benefit amount). AFC is the average annual earnable compensation during 12 consecutive quarters and includes an amount for up to 45 days termination pay at retirement for unused annual leave.</p> <p>Class III 1.82% of Average Final Compensation times years of credited service. AFC is the average annual earnable compensation during 20 consecutive quarters and termination pay for unused annual leave at retirement is not included.</p>	<p>Class II 2.14% of Average Final Compensation (AFC) times years of credited service (annual benefit amount). AFC is the average annual earnable compensation during 12 consecutive quarters and includes an amount for up to 45 days termination pay at retirement for unused annual leave.</p> <p>Class III 2.14% of Average Final Compensation times years of credited service. AFC is the average annual earnable compensation during 20 consecutive quarters and termination pay for unused annual leave at retirement is not included.</p>	4.82% of earnable compensation times years of credited service	Annual allowance of 71.3% of the current active salary of the member's position. Benefit formula increases by 2.67% for each year of active service over 25 years for judges or over 24 years for solicitors or circuit public defenders. The monthly retirement allowance may not exceed 90% of the current active salary for the member's position. Upon retirement, a member will receive an additional lump sum benefit equal to employee contributions and accumulated interest remitted after reaching the maximum 90% benefit.	For 20 years of service, retirees receive a \$50 monthly benefit. For each year of service beyond the 20 years, up to 30 years of service, the retiree receives an additional \$5. The maximum monthly benefit a retiree can receive is \$100.

SCRS	PORS	GARS	JSRS	SCNG
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9. Requirements for Disability Retirement

<p>A member may receive disability retirement benefits only if the member qualifies for the payment of Social Security disability benefits.</p> <p>Class II Must have at least 5 years of earned service, unless disability is the result of an injury arising out of and in the course of the performance of job duties.</p> <p>Class III Must have at least 8 years of earned service, unless disability is the result of an injury arising out of and in the course of the performance of job duties.</p>	<p>A member may receive disability retirement benefits only if after a medical examination of the member, the member is mentally or physically incapacitated for further performance of duty, that the incapacity is likely to be permanent, and that the member should be retired.</p> <p>Class II Must have at least 5 years of earned service, unless disability is the result of an injury arising out of and in the course of the performance of job duties.</p> <p>Class III Must have at least 8 years of earned service, unless disability is the result of an injury arising out of and in the course of the performance of job duties.</p>	<p>A member may receive disability retirement benefits only if after a medical examination of the member, the member is mentally or physically incapacitated for further performance of duty, that the incapacity is likely to be permanent, and that the member should be retired.</p> <p>Must have at least 5 years of credited service, unless disability is the result of an injury arising out of and in the course of the performance of legislative duties.</p>	<p>A member may receive disability retirement benefits only if to the satisfaction of the Supreme Court, or a majority of the justices thereof, the member is totally and permanently disabled, physically or mentally, or both, from further rendering useful and efficient service in the position.</p> <p>Must have at least 5 years of earned service.</p>	Not applicable
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10. Formula for Disability Retirement

<p>Disability retirement benefit is based on years of credited service at retirement, average final compensation at retirement and the current benefit multiplier for service retirement benefits. Minimum benefit of 15% of AFC at any age.</p>	<p>Disability retirement benefit is based on a projection of service credit to age 55 or 25 years of service credit, whichever is less, AFC at retirement and the current benefit multiplier for service retirement benefits. Minimum benefit of 15% of AFC at any age.</p>	<p>The disability retirement benefit is based on the greater of the following options:</p> <ol style="list-style-type: none"> Service benefit based upon actual credited service or 50% of service benefit based on projection of service to earlier of age 60 or 35 years of service. 	<p>The disability retirement benefit is based on the service retirement formula.</p>	Not applicable
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SCRS	PORS	GARS	JSRS	SCNG
11. Benefit Options				
<p>Option A (Maximum/Retiree Only) Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.</p> <p>Option B (100% - 100% Joint Retiree/Survivor) Provides a reduced (from Option A) lifetime benefit that upon retiree's death continues to retiree's beneficiary. This option is subject to non-spousal beneficiary limitations based on state statute and an Internal Revenue Code formula.</p> <p>Option C (100% - 50% Joint Retiree/Survivor) Provides a reduced (from Option A) lifetime benefit that upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity.</p> <p>Note: If a retiree selects Option B or Option C and all of the retiree's beneficiaries predecease the retiree, the retiree's benefit will revert to Option A.</p>	<p>Option A (Maximum/Retiree Only) Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.</p> <p>Option B (100% - 100% Joint Retiree/Survivor) Provides a reduced (from Option A) lifetime benefit that upon retiree's death continues to retiree's beneficiary. This option is subject to non-spousal beneficiary limitations based on state statute and an Internal Revenue Code formula.</p> <p>Option C (100% - 50% Joint Retiree/Survivor) Provides a reduced (from Option A) lifetime benefit that upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity.</p> <p>Note: If a retiree selects Option B or Option C and all of the retiree's beneficiaries predecease the retiree, the retiree's benefit will revert to Option A.</p>	<p>Maximum Benefit (Retiree Only) Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.</p> <p>Option 1 Provides a reduced (from the Maximum Benefit) lifetime benefit that upon retiree's death continues to retiree's beneficiary. Benefit will not revert to Maximum if all of the retiree's beneficiaries predecease the retiree.</p> <p>Option 2 Provides a reduced (from the Maximum Benefit) lifetime benefit that upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity. Benefit will not revert to Maximum if all of the retiree's beneficiaries predecease the retiree.</p> <p>Revert to Maximum (1A or 2A) This feature will allow benefits to be changed to the Maximum Benefit if the retiree selects Option 1 or Option 2 and all of the retiree's beneficiaries predecease the retiree.</p>	<p>Maximum Benefit (Retiree/One-Third Spouse) Formula as calculated in item 8. Continued annuity of one-third of member's benefit to a spouse beneficiary upon death of retiree or return of contributions to a designated non-spouse beneficiary.</p> <p>Optional Allowance Provides a reduced (from the Maximum Benefit) lifetime annuity that upon the retiree's death will continue at one-third of the retiree's annuity to a non-spouse beneficiary (or in equal shares to multiple beneficiaries).</p>	<p>Formula benefit as calculated in item 8.</p>

SCRS	PORS	GARS	JSRS	SCNG
12. Deferred Retirement Option Programs				
<p>The TERI program ended effective June 30, 2018.</p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>A JSRS member who has not reached age 60, but is eligible to retire and receive the 90 percent maximum JSRS annuity may retire and continue to serve as a judge, solicitor, or circuit public defender. However, the monthly annuity will be deferred, without interest, until the member reaches age 60. Payout of the deferred annuity will be made when the retired JSRS member reaches the normal retirement age of 60.</p> <p>Employee and employer contributions must continue to be paid while a member is participating in the JSRS deferred retirement program, but no additional service is earned.</p>	<p>Not applicable</p>

SCRS	PORS	GARS	JSRS	SCNG
13. Return to Work Provisions				
<p>There is no earning limitation for members who retired prior to 1/1/2013. For members retiring after 1/1/2013, in order to return to work for a covered employer after retirement, the member must first have a complete, bona fide severance or termination of employment. After 30 days of retirement, he may be hired by an employer covered by one of the retirement systems administered by PEBA Retirement Benefits. If the member is under age 62 at retirement and returns to covered employment, he will be subject to a \$10,000 per year earnings limitation. A member can earn up to \$10,000 per year and continue to receive his monthly annuity. If wages earned exceed \$10,000 in a calendar year, the monthly annuity will be suspended for the remainder of that year. The \$10,000 earnings limitation does not apply to a retired member who receives compensation for service as an elected official, service as an appointee of the Governor with confirmation by the Senate, or service by appointment or election by the General Assembly. The \$10,000 earnings limitation does not apply if the State Department of Education determines that no qualified, non-retired member is available for employment in the position, and 1) that a certified teacher is teaching in a critical academic need area or a geographic need area as defined by the State Board of Education, or 2) that a retired certified school teacher or certified employee</p> <p><i>Continued on Next Page</i></p>	<p>There is no earning limitation for members who retired prior to 1/1/2013. For members retiring after 1/1/2013, in order to return to work for a covered employer after retirement, the member must first have a complete, bona fide severance or termination of employment. After 30 days of retirement, he may be hired by an employer covered by one of the retirement systems administered by PEBA Retirement Benefits. If the member is under age 57 at retirement and returns to covered employment, he will be subject to a \$10,000 per year earnings limitation. A member can earn up to \$10,000 per year and continue to receive his monthly annuity. If wages earned exceed \$10,000 in a calendar year, the monthly annuity will be suspended for the remainder of that year. The \$10,000 earnings limitation does not apply to a retired member who receives compensation for service as an elected official, service as an appointee of the Governor with confirmation by the Senate, or service by appointment or election by the General Assembly. Under certain circumstances, a PORS member who retired on or before December 31, 2017, may return to covered employment without affecting his monthly retirement benefit if he is a Class 1 law enforcement officer and returns to work with a public school district as a critical needs school resource officer. The \$10,000 earnings limitation does not apply if the public school</p> <p><i>Continued on Next Page</i></p>	<p>An active GARS member who has reached age 70 or has 30 years of service credit may retire and begin receiving a GARS retirement annuity while continuing to serve in office. The retired GARS member will receive a retirement annuity in lieu of a per diem salary and additional line item pay for certain positions. If a retired member returns to service in a position other than as a member of the General Assembly that is covered by SCRS, PORS, or JSRS, the member is subject to the same earnings limitation as under SCRS.</p>	<p>A member who is age 60 and eligible to receive the maximum monthly benefit, may retire and receive a retirement benefit while continuing to serve as a judge, solicitor, or circuit public defender until the end of the calendar year in which the member reaches age 72. Employee and employer contributions must continue to be paid as if the retiree was an active contributing member, but no additional service credit accrues and no additional interest is credited to their retirement account. Effective July 1, 2014, a retired member who has been retired for 30 days may be rehired by an SCRS or PORS employer and earn up to \$10,000 per year. The earnings limit does not apply to members who retired prior to July 1, 2014, were at least 62 at retirement or are serving as appointed or elected official. Employee and employer contributions must continue to be paid as if the member were active in SCRS or PORS; however, the member cannot be an active member and does not accrue service credit.</p>	<p>Not applicable</p>

SCRS	PORS	GARS	JSRS	SCNG
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Return to Work Provisions (continued)

<p>is employed in a school or school district that has received a “below average” or “unsatisfactory” academic performance rating pursuant to the Education Accountability Act. After approval is received from the Department of Education, school districts must notify PEBA Retirement Benefits of the member’s exemption from the earnings limitation. Retired members who return to work for a covered employer are required to contribute at the same tax-deferred percentage of gross pay as active members. No additional service credit or interest is earned. Employers of return to work retirees are also required to pay the employer contribution at the same rate as an active member.</p>	<p>district where the retiree is physically working and the covered employer for which the member works submit a completed School Resource Officer Critical Needs Certification (Form 7214) to PEBA. This exemption is effective July 1, 2018, and is contingent upon continued approval in each year’s state budget. Retired members who return to work for a covered employer are required to contribute at the same tax-deferred percentage of gross pay as active members. No additional service credit or interest is earned. Employers of return to work retirees are also required to pay the employer contribution at the same rate as an active member.</p>
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14. Post Retirement Increase

<p>Eligible annuitant payees receive an annual benefit adjustment equal to the lesser of 1% or \$500.</p>	<p>Eligible annuitant payees receive an annual benefit adjustment equal to the lesser of 1% or \$500.</p>	<p>Generally, if the General Assembly approves an increase in earnable compensation for active GARS members, benefits for GARS retirees and beneficiaries will increase by the same percentage on the effective date of the earnable compensation increase.</p>	<p>Retired member receives benefit based on current salary for member’s position.</p>	<p>Post retirement increases are not provided.</p>
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15. Accidental Death Program

<p>Not applicable</p>	<p>Provides 50% of earnable compensation at time of accidental death in the line of duty as an annuity to either the surviving spouse, children, or parents. The annuity to surviving children ends upon each child’s 18th birthday.</p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>Not applicable</p>
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SCRS	PORS	GARS	JSRS	SCNG
16. Death Benefit Program				
Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member or working retired contributing member with at least one year of service.	Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member or working retired contributing member with at least one year of service.	Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.	Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.	Not applicable
No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.	No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.	No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.	No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.	
Lump-sum payment to retiree's beneficiary of up to \$6,000 based upon years of service at retirement. Working retired contributing members are eligible for an increased death benefit payment equal to their annual salary in lieu of the standard retired member benefit.	Lump-sum payment to retiree's beneficiary of up to \$6,000 based upon years of service at retirement. Working retired contributing members are eligible for an increased death benefit payment equal to their annual salary in lieu of the standard retired member benefit.	Lump-sum payment to retiree's beneficiary of up to \$3,000 based upon years of service at retirement.	Lump-sum payment to retiree's beneficiary of up to \$3,000 based upon years of service at retirement.	
17. Withdrawal of Employee Contributions				
Accumulated contributions, plus interest, payable upon request 90 days after termination of all covered employment.	Accumulated contributions, plus interest, payable upon request 90 days after termination of all covered employment.	Accumulated contributions, plus interest, paid as promptly as feasible upon request after termination of all covered employment.	Accumulated contributions, plus interest, paid as promptly as feasible upon request after termination of all covered employment.	Not applicable as this is a non-contributory plan.
Effective July 1, 2012, no interest is accrued on inactive accounts.	Effective July 1, 2012, no interest is accrued on inactive accounts.	Effective July 1, 2012, no interest is accrued on inactive accounts.	Effective July 1, 2012, no interest is accrued on inactive accounts.	

SCRS	PORS	GARS	JSRS	SCNG
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18. Actuarial Cost Method

<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member’s projected pension benefit is allocated on a level percent of payroll over the member’s projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level percentage of pay over the funding period. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>	<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member’s projected pension benefit is allocated on a level percent of payroll over the member’s projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level percentage of pay over the funding period. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>	<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member’s projected pension benefit is allocated on a level dollar amount over the member’s projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level dollar amount over the funding period. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>	<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member’s projected pension benefit is allocated on a level percent of payroll over the member’s projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level percentage of pay over the funding period. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>	<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member’s projected pension benefit is allocated on a level dollar amount over the member’s projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level dollar amount over the funding period. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>
<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>	<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>	<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>	<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>	<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>

19. Funding Policy

<p>The base funding policy for SCRS is set by Section 9-1-1085 of the Code of Laws, which sets contribution rates and a schedule of the maximum funding period for the system’s unfunded actuarial accrued liability. Under that section, the maximum funding period must decline from 30 years for fiscal year 2018 to 20 years by fiscal year 2028. The PEBA Board must increase the employer contribution rate if necessary to meet the maximum funding period set in statute. Contributions to the system may not be decreased until the system is at least 85 percent funded.</p>	<p>The base funding policy for PORS is set by Section 9-11-225 of the Code of Laws, which sets contribution rates and a schedule of the maximum funding period for the system’s unfunded actuarial accrued liability. Under that section, the maximum funding period must decline from 30 years for fiscal year 2018 to 20 years by fiscal year 2028. The PEBA Board must increase the employer contribution rate if necessary to meet the maximum funding period set in statute. Contributions to the system may not be decreased until the system is at least 85 percent funded.</p>	<p>The PEBA Board is responsible for establishing and maintaining the funding policy for GARS. The current GARS funding policy, originally set by the former Budget and Control Board, amortizes the unfunded actuarial accrued liability of the system as a level-dollar amount over a closed 25-year period beginning July 1, 2002.</p>	<p>The PEBA Board is responsible for establishing and maintaining the funding policy for JSRS. The current JSRS funding policy requires that the maximum funding period for the system’s unfunded actuarial accrued liability decline from 28 years in fiscal year 2020 to 20 years by fiscal year 2028. The PEBA Board must increase the employer contribution rate if necessary to meet the maximum funding period set out in the policy. Contributions to the system may not be decreased until the system is at least 85 percent funded.</p>	<p>The PEBA Board is responsible for establishing and maintaining the funding policy for the SCNG plan. The SCNG funding policy, originally set by the former Budget and Control Board, amortizes the unfunded actuarial accrued liability of the system as a level-dollar amount over a closed 30-year period beginning July 1, 2006.</p>
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Statistical

Statistical Section Summary

The objective of the Statistical Section is to provide financial statement users with additional historical perspective, context, and detail to assist in using information presented in the Financial Statements, Notes to the Financial Statements, and Required Supplementary Information to understand and assess the Systems’ economic condition. Information reported in the Systems’ statistical section is presented in four main categories: Financial Trends Information, Operating Information, Revenue Capacity Information, and Demographic and Economic Information.

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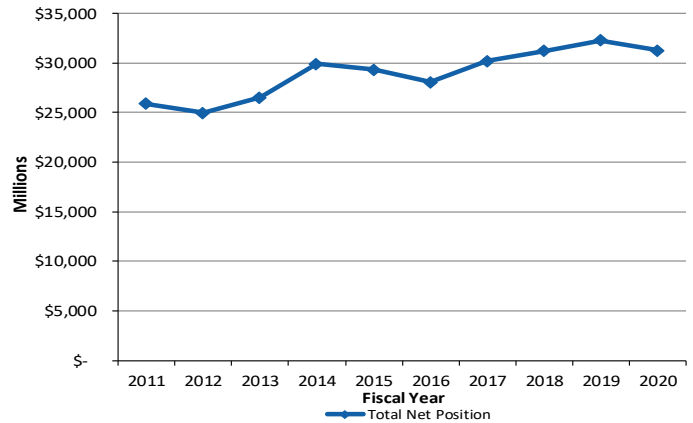
- Participating Employers - SCRS and PORS 251

Financial Trends Information

Financial Trends Information is intended to assist users in understanding and assessing how the Systems' financial position has changed over time. The 10-year summary of fiduciary net position and 10-year schedules of changes in fiduciary net position as well as the additions by source, deductions by type, and benefit expenses by type for the last 10 fiscal years may be considered useful in determining financial trends.

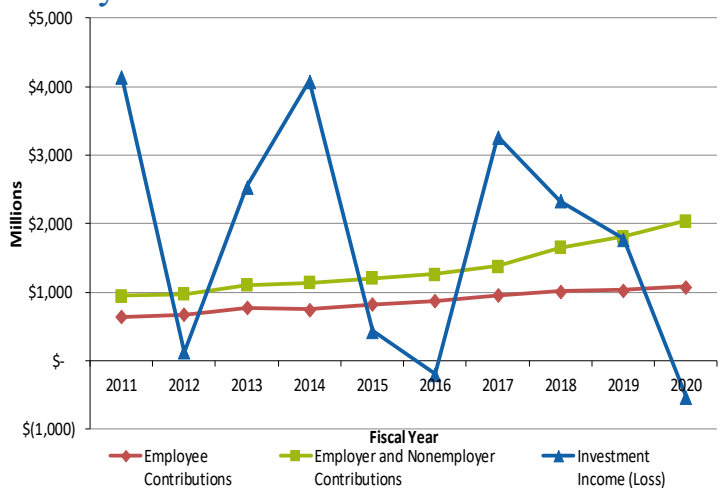
Trend of Total Fiduciary Net Position Values

A trend of the total fiduciary net position over the past 10 years reflects an overall increase; however, the plans are in a net cash outflow position with benefit payments exceeding contributions; therefore, investment performance must first make up this gap before fiduciary net position can grow. Negative investment returns and relatively flat investment performance realized during fiscal years 2012, 2015, 2016 and 2020 resulted in decreases in the net position of the portfolio. The increases in fiscal years 2017, 2018 and 2019 were attributable to both increased contributions and positive investment performance.



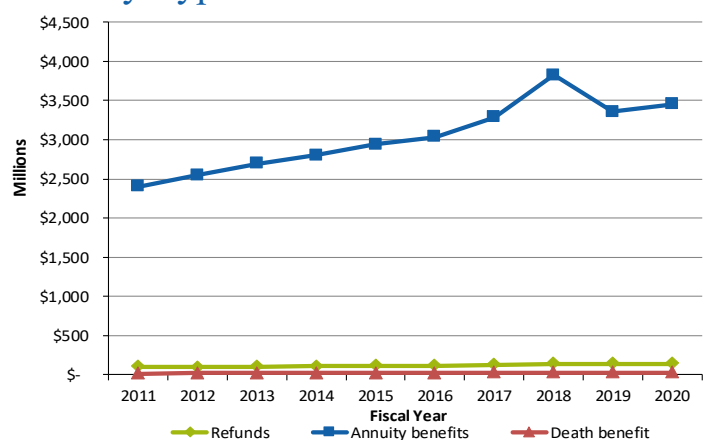
Trend of Total Pension Trust Funds Additions by Source

Employee and employer contributions have gradually increased primarily due to increases in contribution rates, although changes in the amount of covered payroll and members purchasing service have also had an impact. Legislation enacted effective July 1, 2017 increased the employer and employee contribution rates and established a ceiling on SCRS and PORS employee contribution rates. To help offset a portion of the increased contribution requirement for employers, the General Assembly funded a portion of SCRS and PORS contributions for fiscal years 2018, 2019 and 2020 as nonemployer contributions. Investment income is much more volatile due to its dependence on the market.



Trend of Total Pension Trust Funds Deductions by Type

The combined impact of increases in the number of retired members and benefit adjustments granted to retirees, has resulted in a steady rise in the annuity expense over the past 10 years. In addition, the surge in the amount of distributions paid to members with the closure of the TERI program spiked an increase in fiscal years 2017 and 2018. Even though regular monthly retirement benefits increased, total benefit expenses decreased from fiscal year 2018 to 2019 due to the closure of the TERI program the prior year.



South Carolina Retirement Systems

10 Year Summary of Fiduciary Net Position

As of June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016
Assets					
Cash and cash equivalents, receivables, and prepaid expenses	\$ 5,249,820	\$ 4,323,924	\$ 3,359,600	\$ 3,712,085	\$ 4,979,349
Investments, at fair value	28,875,414	29,547,472	29,243,863	27,995,164	24,790,218
Securities lending cash collateral invested	20,452	41,327	34,612	123,275	55,737
Capital assets, net of accumulated depreciation	2,156	2,232	2,362	2,537	2,741
Total assets	34,147,842	33,914,955	32,640,437	31,833,061	29,828,045
Liabilities					
Deferred retirement benefits		70	377,263	95,327	71,693
Obligations under securities lending	20,452	41,327	34,612	123,275	55,737
Other liabilities	2,874,001	1,587,595	1,021,458	1,397,531	1,633,962
Total liabilities	2,894,453	1,628,992	1,433,333	1,616,133	1,761,392
Net Position Restricted for Pensions	\$ 31,253,389	\$ 32,285,963	\$ 31,207,104	\$ 30,216,928	\$ 28,066,653
	2015	2014	2013 ¹	2012 ²	2011
Assets					
Cash and cash equivalents, receivables, and prepaid expenses	\$ 3,622,210	\$ 4,063,173	\$ 4,023,274	\$ 3,416,972	\$ 3,977,880
Investments, at fair value	27,093,961	26,754,819	24,587,950	23,157,144	23,870,891
Securities lending cash collateral invested	70,177	72,645	106,633	184,025	229,161
Capital assets, net of accumulated depreciation	3,005	2,912	3,083	2,984	3,103
Total assets	30,789,353	30,893,549	28,720,940	26,761,125	28,081,035
Liabilities					
Deferred retirement benefits	68,104	56,901	68,344	386,302	364,005
Obligations under securities lending	70,177	72,645	106,633	184,025	229,161
Other liabilities	1,345,382	836,292	1,645,150	1,211,693	1,596,020
Total liabilities	1,483,663	965,838	1,820,127	1,782,020	2,189,186
Net Position Restricted for Pensions	\$ 29,305,690	\$ 29,927,711	\$ 26,900,813	\$ 24,979,105	\$ 25,891,849

¹ In accordance with GASB 67, financial statements for fiscal year 2013 were restated to report a liability only for benefits due, but not yet distributed to members who had ended their participation in the DROP program at June 30. Also, in an effort to more closely align with RSIC and their investment advisor, Global asset allocation and certain derivative investments such as swaps, options and futures were reclassified for fiscal year 2013 to conform to the presentation in fiscal year 2014.

² Certain assets held in strategic partnerships were reclassified for fiscal year 2012 to conform to the change in presentation for fiscal year 2013. In an effort to conform to investment reporting by the RSIC; cash, short duration and high yield investments held in the strategic partnerships that were previously classified as alternatives are now presented in the respective categories of cash and cash equivalents, short term securities and domestic fixed income.

South Carolina Retirement System

10 Year Schedule of Changes in Fiduciary Net Position

Year Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016
Additions					
Employee contributions	\$ 922,539	\$ 880,664	\$ 868,681	\$ 826,543	\$ 754,153
Employer contributions	1,647,757	1,450,308	1,300,477	1,168,847	1,072,659
Nonemployer contributions	88,706	88,706	104,974		
Net investment income (loss)	(441,580)	1,499,391	1,986,948	2,791,215	(165,394)
Other income	291	320	355	393	611
Total additions	<u>2,217,713</u>	<u>3,919,389</u>	<u>4,261,435</u>	<u>4,786,998</u>	<u>1,662,029</u>
Deductions					
Refunds	117,860	118,067	113,867	105,169	93,694
Annuity benefits	3,007,836	2,938,736	3,427,005	2,907,666	2,668,819
Death benefits	22,750	21,806	22,284	22,677	20,659
Administrative and other expenses	15,765	16,780	16,192	15,019	14,323
Total deductions	<u>3,164,211</u>	<u>3,095,389</u>	<u>3,579,348</u>	<u>3,050,531</u>	<u>2,797,495</u>
Net increase (decrease) in Net Position	(946,498)	824,000	682,087	1,736,467	(1,135,466)
Net Position Restricted for Pensions					
Beginning of year	<u>27,238,916</u>	<u>26,414,916</u>	<u>25,732,829</u>	<u>23,996,362</u>	<u>25,131,828</u>
End of year	<u>\$ 26,292,418</u>	<u>\$ 27,238,916</u>	<u>\$ 26,414,916</u>	<u>\$ 25,732,829</u>	<u>\$ 23,996,362</u>
	2015	2014	2013 ¹	2012	2011
Additions					
Employee contributions	\$ 716,107	\$ 652,631	\$ 674,783	\$ 586,818	\$ 562,170
Employer contributions	1,022,478	962,798	948,157	824,652	808,343
Net investment income (loss)	374,152	3,517,324	2,195,648	109,307	3,598,069
Other income	514	587	657	733	884
Total additions	<u>2,113,251</u>	<u>5,133,340</u>	<u>3,819,245</u>	<u>1,521,510</u>	<u>4,969,466</u>
Deductions					
Refunds	95,104	90,250	87,212	83,134	84,591
Annuity benefits	2,590,806	2,462,146	2,368,510	2,256,519	2,134,031
Death benefits	20,144	19,240	19,133	18,295	16,485
Administrative and other expenses	13,890	14,235	16,629	21,683	20,467
Total deductions	<u>2,719,944</u>	<u>2,585,871</u>	<u>2,491,484</u>	<u>2,379,631</u>	<u>2,255,574</u>
Net increase (decrease) in Net Position	(606,693)	2,547,469	1,327,761	(858,121)	2,713,892
Net Position Restricted for Pensions					
Beginning of year	<u>25,738,521</u>	<u>23,191,052</u>	<u>21,863,291</u>	<u>22,395,029</u>	<u>19,681,137</u>
End of year	<u>\$ 25,131,828</u>	<u>\$ 25,738,521</u>	<u>\$ 23,191,052</u>	<u>\$ 21,536,908</u>	<u>\$ 22,395,029</u>

¹In accordance with GASB 67, Annuity Benefits reported in fiscal year 2013 were restated to include only DROP amounts actually distributed to participants as well as amounts due but not yet distributed. Also, RSIC administrative expenses previously classified as administrative expenses were reclassified as investment expenses and therefore included in the net investment income (loss) category for fiscal year 2013.

Police Officers Retirement System

10 Year Schedule of Changes in Fiduciary Net Position

Year Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016
Additions					
Employee contributions	\$ 151,835	\$ 144,747	\$ 138,652	\$ 127,840	\$ 115,188
Employer contributions	263,135	237,821	211,793	192,006	175,223
Nonemployer contributions	12,470	12,470	13,122		
Net investment income (loss)	(79,106)	264,323	331,529	455,914	(24,636)
Other income	1,008	1,161	1,547	1,293	1,192
Total additions	349,342	660,522	696,643	777,053	266,967
Deductions					
Refunds	22,492	21,608	23,899	19,964	19,178
Annuity benefits	407,642	389,050	371,283	354,749	339,536
Death benefits	2,359	1,890	2,751	2,104	1,960
Administrative and other expenses	2,483	2,596	2,402	2,149	2,082
Total deductions	434,976	415,144	400,335	378,966	362,756
Net increase (decrease) in Net Position	(85,634)	245,378	296,308	398,087	(95,789)
Net Position Restricted for Pensions					
Beginning of year	4,815,809	4,570,431	4,274,123	3,876,036	3,971,825
End of year	<u>\$ 4,730,175</u>	<u>\$ 4,815,809</u>	<u>\$ 4,570,431</u>	<u>\$ 4,274,123</u>	<u>\$ 3,876,036</u>

	2015	2014	2013 ¹	2012	2011
Additions					
Employee contributions	\$ 106,854	\$ 96,004	\$ 97,164	\$ 84,470	\$ 79,334
Employer contributions	166,451	155,608	143,389	134,299	129,314
Net investment income (loss)	58,705	538,386	329,467	17,198	519,531
Other income	1,083	2,286	3,043	1,957	1,944
Total additions	333,093	792,284	573,063	237,924	730,123
Deductions					
Refunds	17,453	16,184	14,983	15,162	14,902
Annuity benefits	324,829	313,216	297,631	265,582	244,443
Death benefits	2,150	2,410	1,985	1,851	1,984
Administrative and other expenses	1,938	1,820	2,006	2,872	2,735
Total deductions	346,370	333,630	316,605	285,467	264,064
Net increase (decrease) in Net Position	(13,277)	458,654	256,458	(47,543)	466,059
Net Position Restricted for Pensions					
Beginning of year	3,985,102	3,526,448	3,269,990	3,317,533	2,851,474
End of year	<u>\$ 3,971,825</u>	<u>\$ 3,985,102</u>	<u>\$ 3,526,448</u>	<u>\$ 3,269,990</u>	<u>\$ 3,317,533</u>

¹ In accordance with GASB 67, RSIC administrative expenses previously classified as administrative expenses were reclassified as investment expenses and therefore included in the net investment income (loss) category for fiscal year 2013.

General Assembly Retirement System

10 Year Schedule of Changes in Fiduciary Net Position

Year Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016
Additions					
Employee contributions	\$ 222	\$ 162	\$ 287	\$ 468	\$ 292
Employer contributions	6,329	5,804	5,428	4,539	4,501
Net investment income (loss)	(443)	1,887	2,376	3,329	(266)
Other income				19	
Total additions	6,108	7,853	8,091	8,355	4,527
Deductions					
Refunds		17			22
Annuity benefits	6,323	6,480	6,452	6,678	6,625
Death benefits	25	18	16	59	9
Administrative and other expenses	18	20	18	17	165
Total deductions	6,366	6,535	6,486	6,754	6,821
Net increase (decrease) in Net Position	(258)	1,318	1,605	1,601	(2,294)
Net Position Restricted for Pensions					
Beginning of year	34,712	33,394	31,789	30,188	32,482
End of year	\$ 34,454	\$ 34,712	\$ 33,394	\$ 31,789	\$ 30,188
	2015	2014	2013 ¹	2012	2011
Additions					
Employee contributions	\$ 369	\$ 384	\$ 1,091	\$ 724	\$ 624
Employer contributions	4,275	4,063	2,831	2,532	2,414
Net investment income (loss)	500	4,545	3,111	172	5,682
Other income		15	199		1
Total additions	5,144	9,007	7,232	3,428	8,721
Deductions					
Refunds		41	3	31	57
Annuity benefits	6,639	6,799	6,720	6,570	6,528
Death benefits	21	20	16	35	58
Administrative and other expenses	36	17	20	30	179
Total deductions	6,696	6,877	6,759	6,666	6,822
Net increase (decrease) in Net Position	(1,552)	2,130	473	(3,238)	1,899
Net Position Restricted for Pensions					
Beginning of year	34,034	31,904	31,431	34,669	32,770
End of year	\$ 32,482	\$ 34,034	\$ 31,904	\$ 31,431	\$ 34,669

¹ In accordance with GASB 67, RSIC administrative expenses previously classified as administrative expenses were reclassified as investment expenses and therefore included in the net investment income (loss) category for fiscal year 2013.

Judges and Solicitors Retirement System

10 Year Schedule of Changes in Fiduciary Net Position

Year Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016
Additions					
Employee contributions	\$ 4,966	\$ 2,840	\$ 3,016	\$ 2,928	\$ 2,303
Employer contributions	19,098	11,730	11,043	10,534	10,202
Nonemployer contributions	2,900				
Net investment income (loss)	(2,361)	9,183	11,723	16,399	(871)
Other income	563	96		253	27
Total additions	25,166	23,849	25,782	30,114	11,661
Deductions					
Refunds	182			629	60
Annuity benefits	25,301	17,947	17,655	17,679	16,989
Death benefits	190	3	156	293	143
Administrative and other expenses	86	92	86	79	105
Total deductions	25,759	18,042	17,897	18,680	17,297
Net increase (decrease) in Net Position	(593)	5,807	7,885	11,434	(5,636)
Net Position Restricted for Pensions					
Beginning of year	165,843	160,036	152,151	140,717	146,353
End of year	\$ 165,250	\$ 165,843	\$ 160,036	\$ 152,151	\$ 140,717
	2015	2014	2013 ¹	2012	2011
Additions					
Employee contributions	\$ 3,153	\$ 2,448	\$ 2,596	\$ 2,299	\$ 2,209
Employer contributions	10,109	9,659	8,667	8,414	8,414
Net investment income (loss)	2,216	19,962	12,605	783	20,092
Other income	286	195	184	261	193
Total additions	15,764	32,264	24,052	11,757	30,908
Deductions					
Refunds			57	134	
Annuity benefits	16,832	16,675	15,745	15,171	14,750
Death benefits	4	10	134	134	128
Administrative and other expenses	71	68	76	111	104
Total deductions	16,907	16,753	16,012	15,550	14,982
Net increase (decrease) in Net Position	(1,143)	15,511	8,040	(3,793)	15,926
Net Position Restricted for Pensions					
Beginning of year	147,496	131,985	123,945	127,152	111,226
End of year	\$ 146,353	\$ 147,496	\$ 131,985	\$ 123,359	\$ 127,152

¹ In accordance with GASB 67, Annuity Benefits reported in fiscal year 2013 were restated to include only DROP amounts actually distributed to participants as well as amounts due but not yet distributed. Also, RSIC administrative expenses previously classified as administrative expenses were reclassified as investment expenses and therefore included in the net investment income (loss) category for fiscal year 2013.

South Carolina National Guard Supplemental Retirement Plan 10 Year Schedule of Changes in Fiduciary Net Position

Year Ended June 30
(Amounts expressed in thousands)

	2020	2019	2018	2017	2016
Additions					
State appropriated contributions	\$ 5,290	\$ 5,290	\$ 4,814	\$ 4,591	\$ 4,591
Net investment income (loss)	(352)	1,616	1,902	2,533	(121)
Other income					
Total additions	<u>4,938</u>	<u>6,906</u>	<u>6,716</u>	<u>7,124</u>	<u>4,470</u>
Deductions					
Annuity benefits	4,514	4,534	4,411	4,425	4,310
Administrative and other expenses	15	16	14	13	12
Total deductions	<u>4,529</u>	<u>4,550</u>	<u>4,425</u>	<u>4,438</u>	<u>4,322</u>
Net increase (decrease) in Net Position	409	2,356	2,291	2,686	148
Net Position Restricted for Pensions					
Beginning of year	30,683	28,327	26,036	23,350	23,202
End of year	<u>\$ 31,092</u>	<u>\$ 30,683</u>	<u>\$ 28,327</u>	<u>\$ 26,036</u>	<u>\$ 23,350</u>
	2015	2014	2013 ¹	2012	2011
Additions					
State appropriated contributions	\$ 4,591	\$ 4,586	\$ 4,539	\$ 3,937	\$ 3,904
Net investment income (loss)	313	2,806	1,671	94	2,533
Other income					
Total additions	<u>4,904</u>	<u>7,392</u>	<u>6,210</u>	<u>4,031</u>	<u>6,437</u>
Deductions					
Annuity benefits	4,249	4,248	4,193	4,065	4,011
Administrative and other expenses	11	10	10	15	13
Total deductions	<u>4,260</u>	<u>4,258</u>	<u>4,203</u>	<u>4,080</u>	<u>4,024</u>
Net increase (decrease) in Net Position	644	3,134	2,007	(49)	2,413
Net Position Restricted for Pensions					
Beginning of year	22,558	19,424	17,417	17,466	15,053
End of year	<u>\$ 23,202</u>	<u>\$ 22,558</u>	<u>\$ 19,424</u>	<u>\$ 17,417</u>	<u>\$ 17,466</u>

¹ In accordance with GASB 67, RSIC administrative expenses previously classified as administrative expenses were reclassified as investment expenses and therefore included in the net investment income (loss) category for fiscal year 2013.

Pension Trust Funds Additions by Source

(Amounts expressed in thousands)

Year Ended June 30,	Employee contributions ¹	Employer and Nonemployer contributions ¹	Net investment income(loss) ²	Other income	Total additions
South Carolina Retirement System (SCRS)					
2020	\$ 922,539	\$ 1,736,463	\$ (441,580)	\$ 291	\$ 2,217,713
2019	880,664	1,539,014	1,499,391	320	3,919,389
2018	868,681	1,405,451	1,986,948	355	4,261,435
2017	826,543	1,168,847	2,791,215	393	4,786,998
2016	754,330	1,072,659	(165,394)	434	1,662,029
2015	716,114	1,022,478	374,152	507	2,113,251
2014	652,631	962,798	3,517,324	587	5,133,340
2013	674,783	948,157	2,195,648	657	3,819,245
2012	586,818	824,652	109,307	733	1,521,510
2011	562,222	808,343	3,598,069	832	4,969,466
Police Officer's Retirement System (PORS)					
2020	\$ 152,452	\$ 275,986	\$ (79,106)	\$ 10	\$ 349,342
2019	145,485	250,701	264,323	13	660,522
2018	139,528	225,573	331,529	13	696,643
2017	128,623	192,501	455,914	15	777,053
2016	115,910	175,675	(24,636)	18	266,967
2015	107,504	166,862	58,705	22	333,093
2014	97,418	156,454	538,386	26	792,284
2013	99,106	144,460	329,467	30	573,063
2012	85,701	134,991	17,198	34	237,924
2011	80,582	129,973	519,531	37	730,123
General Assembly Retirement System (GARS)					
2020	\$ 222	\$ 6,329	\$ (443)	\$ -	\$ 6,108
2019	162	5,804	1,887		7,853
2018	287	5,428	2,376		8,091
2017	487	4,539	3,329		8,355
2016	292	4,501	(266)		4,527
2015	369	4,275	500		5,144
2014	399	4,063	4,545		9,007
2013	1,286	2,835	3,111		7,232
2012	724	2,532	172		3,428
2011	625	2,414	5,682		8,721
Judges and Solicitors Retirement System (JSRS)					
2020	\$ 5,529	\$ 21,998	\$ (2,361)	\$ -	\$ 25,166
2019	2,936	11,730	9,183		23,849
2018	3,016	11,043	11,723		25,782
2017	3,181	10,534	16,399		30,114
2016	2,330	10,202	(871)		11,661
2015	3,439	10,109	2,216		15,764
2014	2,632	9,670	19,962		32,264
2013	2,780	8,667	12,605		24,052
2012	2,560	8,414	783		11,757
2011	2,402	8,414	20,092		30,908
South Carolina National Guard Supplemental Retirement Plan (SCNG)					
2020	\$ -	\$ 5,290	\$ (352)	\$ -	\$ 4,938
2019		5,290	1,616		6,906
2018		4,814	1,902		6,716
2017		4,591	2,533		7,124
2016		4,591	(121)		4,470
2015		4,591	313		4,904
2014		4,586	2,806		7,392
2013		4,539	1,671		6,210
2012		3,937	94		4,031
2011		3,904	2,533		6,437

¹ Includes transfers between systems. SCNG employer contributions are provided annually by a State appropriation.

² Includes unrealized gains and losses in accordance with GASB Statement 67 and RSIC administrative expenses previously classified as administrative expenses were reclassified as investment expenses and therefore included in the net investment income (loss) category for fiscal year 2013.

Pension Trust Funds Deductions by Type

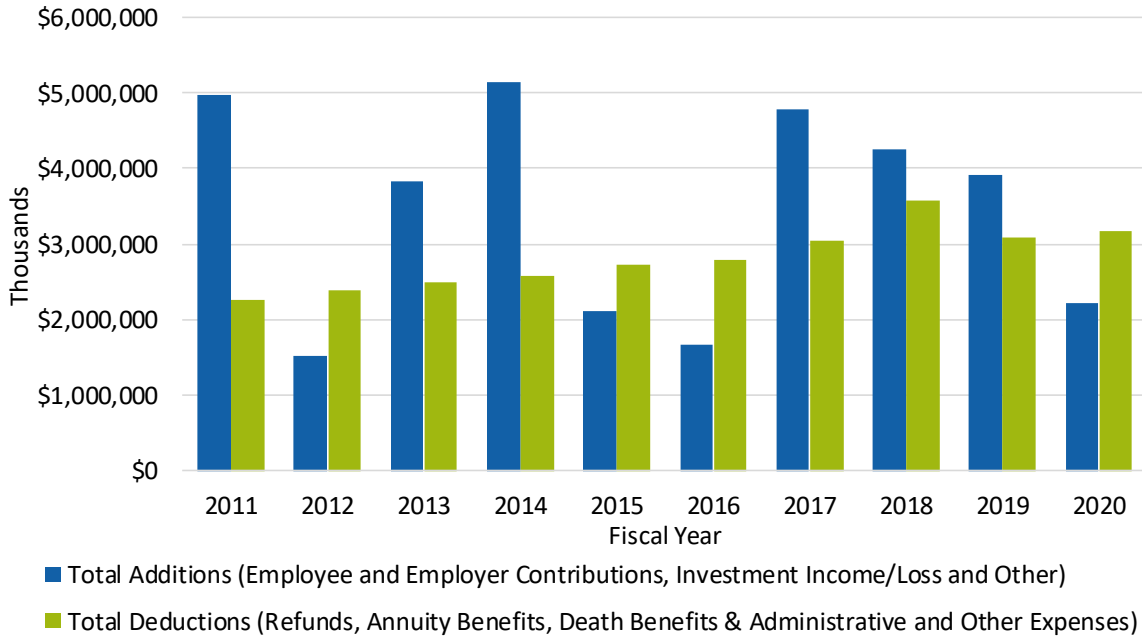
(Amounts expressed in thousands)

Year Ended June 30,	Refunds	Annuity benefits	Death benefits	Administrative and other expenses ¹	Total deductions
South Carolina Retirement System (SCRS)					
2020	\$ 117,860	\$ 3,007,836	\$ 22,750	\$ 15,765	\$ 3,164,211
2019	118,067	2,938,736	21,806	16,780	3,095,389
2018	113,867	3,427,005	22,284	16,192	3,579,348
2017	105,169	2,907,666	22,677	15,019	3,050,531
2016	93,694	2,668,819	20,659	14,323	2,797,495
2015	95,104	2,590,806	20,144	13,890	2,719,944
2014	90,250	2,462,146	19,240	14,235	2,585,871
2013	87,212	2,368,510	19,133	16,629	2,491,484
2012	83,134	2,256,519	18,295	21,683	2,379,631
2011	84,591	2,134,031	16,485	20,467	2,255,574
Police Officer's Retirement System (PORS)					
2020	\$ 22,492	\$ 407,642	\$ 2,359	\$ 2,483	\$ 434,976
2019	21,608	389,050	1,890	2,596	415,144
2018	23,899	371,283	2,751	2,402	400,335
2017	19,964	354,749	2,104	2,149	378,966
2016	19,178	339,536	1,960	2,082	362,756
2015	17,453	324,829	2,150	1,938	346,370
2014	16,184	313,216	2,410	1,820	333,630
2013	14,983	297,631	1,985	2,006	316,605
2012	15,162	265,582	1,851	2,872	285,467
2011	14,902	244,443	1,984	2,735	264,064
General Assembly Retirement System (GARS)					
2020	\$ -	\$ 6,323	\$ 25	\$ 18	\$ 6,366
2019	17	6,480	18	20	6,535
2018		6,452	16	18	6,486
2017		6,678	59	17	6,754
2016	22	6,625	9	165	6,821
2015		6,639	21	36	6,696
2014	41	6,799	20	17	6,877
2013	3	6,720	16	20	6,759
2012	31	6,570	35	30	6,666
2011	57	6,528	58	179	6,822
Judges and Solicitors Retirement System (JSRS)					
2020	\$ 182	\$ 25,301	\$ 190	\$ 86	\$ 25,759
2019		17,947	3	92	18,042
2018		17,655	156	86	17,897
2017	629	17,679	293	79	18,680
2016	60	16,989	143	105	17,297
2015		16,832	4	71	16,907
2014		16,675	10	68	16,753
2013	57	15,745	134	76	16,012
2012	134	15,171	134	111	15,550
2011		14,750	128	104	14,982
South Carolina National Guard Supplemental Retirement Plan (SCNG)					
2020	\$ -	\$ 4,514	\$ -	\$ 15	\$ 4,529
2019		4,534		16	4,550
2018		4,411		14	4,425
2017		4,425		13	4,438
2016		4,310		12	4,322
2015		4,249		11	4,260
2014		4,248		10	4,258
2013		4,193		10	4,203
2012		4,065		15	4,080
2011		4,011		13	4,024

¹ In accordance with GASB 67, RSIC administrative expenses previously classified as administrative expenses were reclassified as investment expenses for fiscal year 2013 and therefore included in the net investment income (loss) category for fiscal year 2013.

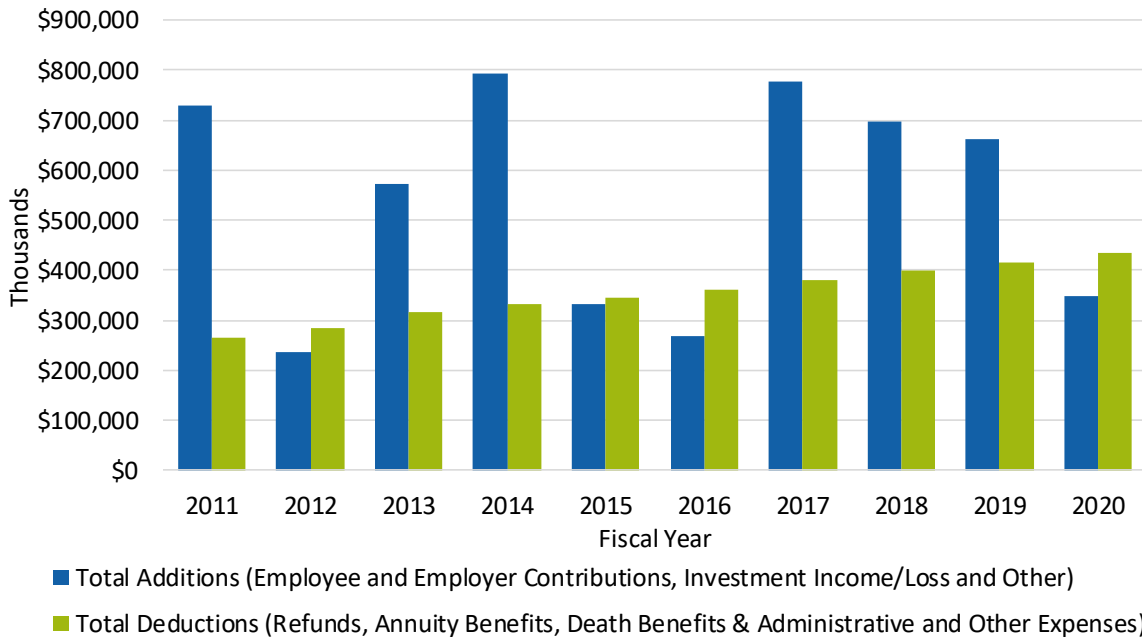
South Carolina Retirement System Pension Trust Funds Additions and Deductions

(Amounts expressed in thousands)



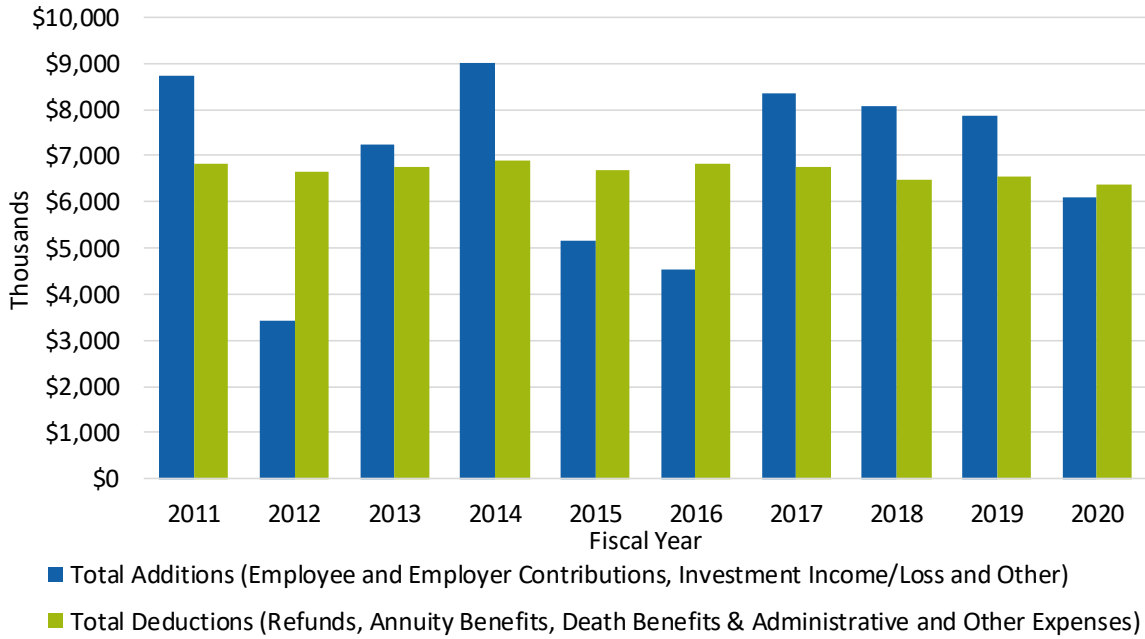
Police Officers Retirement System Pension Trust Funds Additions and Deductions

(Amounts expressed in thousands)



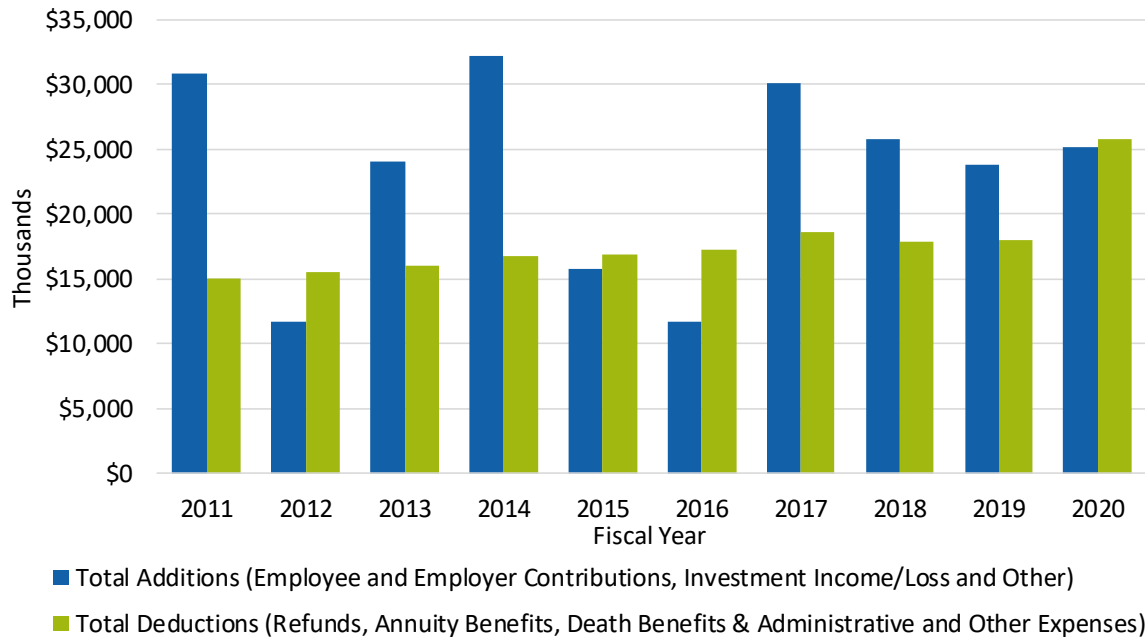
General Assembly Retirement System Pension Trust Funds Additions and Deductions

(Amounts expressed in thousands)



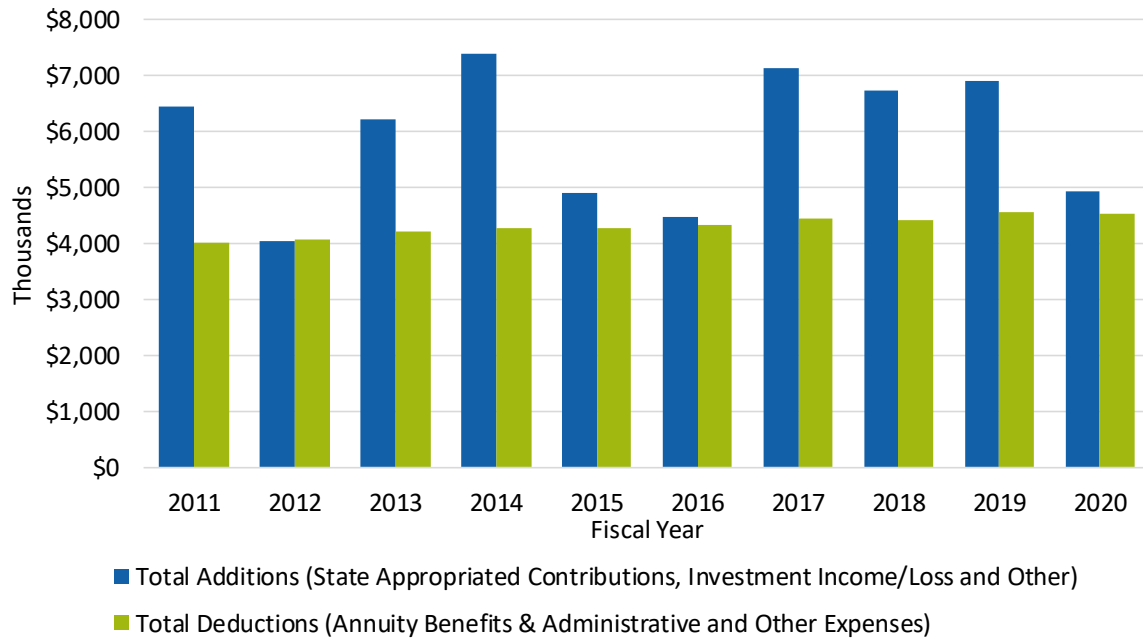
Judges and Solicitors Retirement System Pension Trust Funds Additions and Deductions

(Amounts expressed in thousands)



South Carolina National Guard Supplemental Retirement Plan Pension Trust Funds Additions and Deductions

(Amounts expressed in thousands)



Pension Trust Funds Benefit Expenses by Type

(Amounts expressed in thousands)

Year Ended June 30,	Refunds		Annuity Benefits		Death Benefits		Total
	Member	Survivor/Other	Member	Survivor/Other	Active	Retired	
South Carolina Retirement System (SCRS)							
2020	\$ 109,329	\$ 8,531	\$ 2,866,677	\$ 141,159	\$ 10,596	\$ 12,154	\$ 3,148,446
2019	109,828	8,239	2,804,528	134,208	9,601	12,205	3,078,609
2018	106,320	7,547	3,298,201	128,804	9,949	12,335	3,563,156
2017	97,372	7,797	2,785,394	122,272	10,819	11,858	3,035,512
2016	87,419	6,275	2,552,413	116,406	8,626	12,033	2,783,172
2015	88,952	6,152	2,480,965	109,841	8,427	11,717	2,706,054
2014	84,678	5,572	2,356,997	105,149	8,452	10,788	2,571,636
2013 ¹	81,754	5,458	2,267,657	100,853	8,245	10,888	2,474,855
2012	77,707	5,427	2,160,393	96,126	8,469	9,826	2,357,948
2011	79,238	5,353	2,043,662	90,369	7,815	8,670	2,235,107
Police Officer's Retirement System (PORS)							
2020	\$ 21,968	\$ 524	\$ 384,217	\$ 23,425	\$ 873	\$ 1,486	\$ 432,493
2019	21,093	515	366,917	22,133	790	1,100	412,548
2018	22,733	1,166	349,799	21,484	1,537	1,214	397,933
2017	19,663	301	334,460	20,289	934	1,170	376,817
2016	18,565	613	320,079	19,457	971	989	360,674
2015	16,603	850	306,383	18,446	976	1,174	344,432
2014	15,551	633	295,566	17,650	1,192	1,218	331,810
2013	14,246	737	280,699	16,932	1,020	965	314,599
2012	14,618	544	249,123	16,459	872	979	282,595
2011	14,518	384	228,739	15,704	912	1,072	261,329
General Assembly Retirement System (GARS)							
2020	\$ -	\$ -	\$ 5,281	\$ 1,042	\$ -	\$ 25	\$ 6,348
2019	17		5,466	1,014		18	6,515
2018			5,438	1,014		16	6,468
2017			5,550	1,128	45	14	6,737
2016	22		5,469	1,156		9	6,656
2015			5,443	1,196		21	6,660
2014	41		5,587	1,212		20	6,860
2013		3	5,554	1,166		16	6,739
2012	7	24	5,389	1,181	22	13	6,636
2011	45	12	5,359	1,169	45	13	6,643
Judges and Solicitors Retirement System (JSRS)							
2020	\$ 90	\$ 92	\$ 22,835	\$ 2,466	\$ 186	\$ 4	\$ 25,673
2019			16,034	1,913		3	17,950
2018			15,760	1,895	142	14	17,811
2017		629	15,755	1,924	286	7	18,601
2016		60	15,193	1,796	134	9	17,192
2015			14,996	1,836		4	16,836
2014			14,839	1,836		10	16,685
2013 ¹	57		13,997	1,748	131	3	15,936
2012	83	51	13,322	1,849	130	4	15,439
2011			12,864	1,886	127	1	14,878
South Carolina National Guard Supplemental Retirement Plan (SCNG)							
2020	\$ -	\$ -	\$ 4,513	\$ 1	\$ -	\$ -	\$ 4,514
2019			4,533	1			4,534
2018			4,410	1			4,411
2017			4,424	1			4,425
2016			4,309	1			4,310
2015			4,248	1			4,249
2014			4,247	1			4,248
2013			4,192	1			4,193
2012			4,064	1			4,065
2011			4,010	1			4,011

¹ In accordance with GASB 67, Annuity Benefits reported in fiscal year 2013 were restated to include only DROP amounts actually distributed to participants as well as amounts due but not yet distributed.

Operating Information

Operating Information is intended to provide contextual information about the Systems' operations and resources to assist readers in using financial statement information to comprehend and evaluate the Systems' fiscal state. Schedules containing operating information include retired members by type of benefit and retired members by years of service, and principal participating employers for the current fiscal year and ten years prior.

Although retirement types include service, disability and beneficiary payees, members retiring at normal retirement based on age and service represent the majority of the systems' annuitant payees. Various payment options are available at retirement; however, the majority of members elect to receive benefits under the maximum benefit level.

As of June 30, 2020, more than 171,000 retirees or their beneficiaries were receiving annuity benefits from the five plans. Benefit terms are prescribed in Title 9 of the South Carolina Code of Laws. PEBA does not have the authority to establish or amend benefit terms without a change in the State Statute. Key elements of the benefit calculation include the benefit multiplier, years of service and average final compensation/current annual salary.

South Carolina Retirement System Retired Members by Type of Benefit

As of June 30, 2020

Monthly Benefit ¹	Number of												
	Payees	Type 1	Type 2	Type 3	Type 4	Type 5	Opt 0	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6
\$ 1 - \$ 500	27,023	20,463	312	2,933	2,271	1,044	18,132	73	1,207	407	176	5,017	2,011
\$ 501 - \$1,000	26,792	19,133	710	2,187	3,996	766	18,466	64	866	318	344	4,443	2,291
\$1,001 - \$1,500	20,487	15,039	1,141	1,415	2,559	333	13,367	43	531	166	653	3,666	2,061
\$1,501 - \$2,000	16,929	13,294	1,200	843	1,436	156	10,346	44	348	132	975	3,178	1,906
\$2,001 - \$2,500	17,465	14,871	1,074	555	892	73	9,930	47	201	109	1,355	3,605	2,218
\$2,501 - \$3,000	17,119	15,638	542	350	563	26	11,506	37	146	79	572	2,801	1,978
\$3,001 - \$3,500	8,823	8,138	208	216	242	19	5,768	22	122	50	291	1,487	1,083
\$3,501 - \$4,000	4,615	4,284	90	108	127	6	2,903	7	82	41	148	810	624
\$4,001 - \$4,500	2,838	2,663	48	81	45	1	1,715	8	63	33	99	476	444
\$4,501 - \$5,000	1,676	1,564	28	50	30	4	989	4	33	22	41	343	244
Over \$5,000	2,778	2,629	32	95	20	2	1,337	10	83	62	23	727	536
Totals	146,545	117,716	5,385	8,833	12,181	2,430	94,459	359	3,682	1,419	4,677	26,553	15,396

Type 1: Normal Retirement for Age and Service

Type 2: Early Retirement

Type 3: Beneficiary Payment²

Type 4: Disability Payment

Type 5: Beneficiary Payment, Disability Payment

Option 0: Maximum Benefit

Option 1: 10 Year Beneficiary Protection

Option 2: Survivor Benefit, Full Payment

Option 3: Survivor Benefit, Half Payment

Option 4: Social Security Option

Option 5: Survivor Benefit, Full Payment, Revert to Maximum

Option 6: Survivor Benefit, Half Payment, Revert to Maximum

Police Officers Retirement System Retired Members by Type of Benefit

As of June 30, 2020

Monthly Benefit ¹	Number of											
	Payees	Type 1	Type 2	Type 3	Type 4	Type 5	Opt 0	Opt 1	Opt 2	Opt 3	Opt 5	Opt 6
\$ 1 - \$ 500	2,762	1,790	363	413	115	81	1,616	104	47	73	685	237
\$ 501 - \$1,000	3,361	2,176	232	445	399	109	2,003	134	59	94	722	349
\$1,001 - \$1,500	3,047	1,823	254	322	588	60	1,722	85	46	114	704	376
\$1,501 - \$2,000	3,078	1,932	270	180	668	28	1,707	62	28	194	690	397
\$2,001 - \$2,500	2,891	2,059	204	99	516	13	1,687	30	15	116	640	403
\$2,501 - \$3,000	2,003	1,557	96	57	290	3	1,213	17	11	67	421	274
\$3,001 - \$3,500	1,097	927	38	27	103	2	706	14	11	33	196	137
\$3,501 - \$4,000	690	612	7	9	62		455	5	5	15	101	109
\$4,001 - \$4,500	375	338	6	7	24		248	4		6	60	57
\$4,501 - \$5,000	204	196		1	7		121	1	5	2	38	37
Over \$5,000	263	254	2	3	4		175	4	4	7	21	52
Totals	19,771	13,664	1,472	1,563	2,776	296	11,653	460	231	721	4,278	2,428

Type 1: Normal Retirement for Age and Service

Type 2: Early Retirement

Type 3: Beneficiary Payment²

Type 4: Disability Payment

Type 5: Beneficiary Payment, Disability Payment

Option 0: Maximum Benefit

Option 1: Survivor Benefit, Full Payment

Option 2: Survivor Benefit, Half Payment

Option 3: Social Security Option

Option 5: Survivor Benefit, Full Payment, Revert to Maximum

Option 6: Survivor Benefit, Half Payment, Revert to Maximum

¹ Monthly benefit amounts represent current payment levels for all annuitant payees receiving monthly benefits, including any applicable benefit adjustments.

² Beneficiary payments include payments to alternate payees in accordance with Qualified Domestic Relations Orders.

General Assembly Retirement System Retired Members by Type of Benefit

As of June 30, 2020

Monthly Benefit ¹	Number of Annuitant Payees	Type of Benefit									
		Type 1	Type 2	Type 3	Type 4	Type 5	Opt 0	Opt 1	Opt 2	Opt 5	Opt 6
\$ 1 - \$ 500	28	8	4	16			9	8	3	3	5
\$ 501 - \$1,000	62	32	4	26			18	19	8	11	6
\$1,001 - \$1,500	67	46	6	15			23	24	8	6	6
\$1,501 - \$2,000	99	66	23	10			43	26	11	13	6
\$2,001 - \$2,500	45	31	6	8			20	9	3	9	4
\$2,501 - \$3,000	25	22	2	1			12	4	2	5	2
\$3,001 - \$3,500	8	6	1	1			5	2		1	
\$3,501 - \$4,000	2	1		1				2			
\$4,001 - \$4,500	2	2					2				
\$4,501 - \$5,000											
Over \$5,000											
Totals	338	214	46	78			132	94	35	48	29

Type 1: Normal Retirement for Age and Service

Type 2: Early Retirement

Type 3: Beneficiary Payment²

Type 4: Disability Payment

Type 5: Beneficiary Payment, Disability Payment

Option 0: Maximum Benefit

Option 1: Survivor Benefit, Full Payment

Option 2: Survivor Benefit, Half Payment

Option 5: Survivor Benefit, Full Payment, Revert to Maximum

Option 6: Survivor Benefit, Half Payment, Revert to Maximum

Judges and Solicitors Retirement System Retired Members by Type of Benefit

As of June 30, 2020

Monthly Benefit ¹	Number of Annuitant Payees	Type of Benefit							
		Type 1	Type 2	Type 3	Type 4	Type 5	Opt 0	Opt 1	
\$ 1 - \$ 500	1	1					1		
\$ 501 - \$1,000	13			13				13	
\$1,001 - \$1,500	2			2			1	1	
\$1,501 - \$2,000	3			3				3	
\$2,001 - \$2,500	2			2			1	1	
\$2,501 - \$3,000	2			2			1	1	
\$3,001 - \$3,500	3			3			2	1	
\$3,501 - \$4,000	23			23			23		
\$4,001 - \$4,500	6	1		5			6		
\$4,501 - \$5,000	10			10			10		
Over \$5,000	159	156		3			149	10	
Totals	224	158		66			194	30	

Type 1: Normal Retirement for Age and Service

Type 2: Early Retirement

Type 3: Beneficiary Payment²

Type 4: Disability Payment

Type 5: Beneficiary Payment, Disability Payment

Option 0: Maximum Benefit with Spouse Beneficiary

Option 1: Reduced Benefit with Non-Spouse Beneficiary

¹ Monthly benefit amounts represent current payment levels for all annuitant payees receiving monthly benefits, including any applicable benefit adjustments.

² Beneficiary payments include payments to alternate payees in accordance with Qualified Domestic Relations Orders.

South Carolina National Guard Supplemental Retirement Plan Retired Members by Type of Benefit

As of June 30, 2020

<u>Monthly Benefit¹</u>	<u>Number of Annuitant Payees</u>	<u>Type 1</u>	<u>Opt 0</u>
\$ 1 - \$ 500	5,001	5,001	5,001
\$ 501 - \$1,000			
\$1,001 - \$1,500			
\$1,501 - \$2,000			
\$2,001 - \$2,500			
\$2,501 - \$3,000			
\$3,001 - \$3,500			
\$3,501 - \$4,000			
\$4,001 - \$4,500			
\$4,501 - \$5,000			
Over \$5,000			
Totals	5,001	5,001	5,001

Type 1: Normal Retirement for Age and Service

Option 0: Maximum Benefit

¹ Monthly benefit amounts represent current payment levels for all annuitant payees receiving monthly benefits.

South Carolina Retirement System

Retired Members by Years of Service

	Years of Credited Service							Avg/Tot
	0 to 5	5+ to 10	10+ to 15	15+ to 20	20+ to 25	25+ to 30	30 Plus	
Period 07/01/2010 to 06/30/2011								
Average Monthly benefit	\$ 201.31	\$ 377.58	\$ 657.74	\$ 1,012.88	\$ 1,369.07	\$ 2,286.31	\$ 2,892.28	\$ 1,446.38
Average AFC	\$ 30,617.92	\$ 31,040.25	\$ 35,794.70	\$ 40,267.14	\$ 43,960.69	\$ 56,937.57	\$ 63,057.44	\$ 45,576.57
Number of Retired members	148	905	1,102	845	757	1,901	587	6,245
Period 07/01/2011 to 06/30/2012								
Average Monthly benefit	\$ 157.20	\$ 384.26	\$ 677.11	\$ 1,061.63	\$ 1,361.59	\$ 2,313.15	\$ 2,877.86	\$ 1,636.95
Average AFC	\$ 33,828.02	\$ 33,027.56	\$ 37,681.65	\$ 43,537.78	\$ 44,369.67	\$ 58,052.58	\$ 62,467.71	\$ 49,129.66
Number of Retired members	170	1,027	1,369	1,006	1,048	3,291	1,204	9,115
Period 07/01/2012 to 06/30/2013								
Average Monthly benefit	\$ 163.89	\$ 375.01	\$ 669.03	\$ 1,019.75	\$ 1,404.20	\$ 2,309.15	\$ 2,940.60	\$ 1,670.78
Average AFC	\$ 33,386.42	\$ 33,020.07	\$ 36,800.54	\$ 41,934.39	\$ 45,275.03	\$ 57,737.43	\$ 63,670.71	\$ 49,332.04
Number of Retired members	126	1,057	1,208	937	832	3,366	1,144	8,670
Period 07/01/2013 to 06/30/2014								
Average Monthly benefit	\$ 171.12	\$ 412.76	\$ 700.19	\$ 1,044.67	\$ 1,432.72	\$ 2,191.05	\$ 3,087.31	\$ 1,468.99
Average AFC	\$ 38,671.40	\$ 37,733.88	\$ 39,400.64	\$ 43,678.21	\$ 46,511.62	\$ 55,577.72	\$ 66,637.15	\$ 48,133.66
Number of Retired members	109	966	1,050	1,004	755	2,158	534	6,576
Period 07/01/2014 to 06/30/2015								
Average Monthly benefit	\$ 99.03	\$ 348.25	\$ 622.91	\$ 949.05	\$ 1,395.11	\$ 2,173.32	\$ 2,913.98	\$ 1,375.57
Average AFC	\$ 32,198.66	\$ 34,989.06	\$ 37,768.25	\$ 41,837.64	\$ 47,729.70	\$ 55,229.87	\$ 61,677.87	\$ 46,395.79
Number of Retired members	105	910	1,030	904	785	2,016	394	6,144
Period 07/01/2015 to 06/30/2016								
Average Monthly benefit	\$ 133.51	\$ 383.49	\$ 648.47	\$ 981.48	\$ 1,434.72	\$ 2,169.84	\$ 2,844.29	\$ 1,367.90
Average AFC	\$ 35,596.69	\$ 37,244.07	\$ 39,206.20	\$ 42,880.13	\$ 48,939.03	\$ 55,127.72	\$ 60,835.89	\$ 47,022.22
Number of Retired members	78	834	1,069	990	770	1,910	329	5,980
Period 07/01/2016 to 06/30/2017								
Average Monthly benefit	\$ 114.41	\$ 365.07	\$ 644.08	\$ 993.92	\$ 1,435.70	\$ 2,237.12	\$ 2,945.84	\$ 1,402.96
Average AFC	\$ 38,072.38	\$ 36,388.08	\$ 39,383.35	\$ 43,149.34	\$ 48,600.24	\$ 56,425.31	\$ 61,769.03	\$ 47,510.76
Number of Retired members	92	773	991	859	714	1,657	401	5,487
Period 07/01/2017 to 06/30/2018								
Average Monthly benefit	\$ 123.46	\$ 371.57	\$ 680.15	\$ 1,053.62	\$ 1,481.67	\$ 2,277.82	\$ 3,079.28	\$ 1,386.64
Average AFC	\$ 36,260.27	\$ 36,318.35	\$ 41,474.61	\$ 45,091.48	\$ 50,084.82	\$ 57,144.23	\$ 64,926.33	\$ 48,212.57
Number of Retired members	80	701	1,061	874	742	1,349	343	5,150
Period 07/01/2018 to 06/30/2019								
Average Monthly benefit	\$ 138.29	\$ 409.45	\$ 679.31	\$ 1,080.61	\$ 1,459.08	\$ 2,351.20	\$ 3,261.18	\$ 1,474.46
Average AFC	\$ 40,362.11	\$ 39,417.17	\$ 40,963.17	\$ 46,060.38	\$ 49,410.81	\$ 58,945.58	\$ 67,953.44	\$ 49,854.39
Number of Retired members	101	648	1,008	799	760	1,284	463	5,063
Period 07/01/2019 to 06/30/2020								
Average Monthly benefit	\$ 119.66	\$ 435.14	\$ 730.21	\$ 1,114.93	\$ 1,537.14	\$ 2,492.34	\$ 3,400.11	\$ 1,687.00
Average AFC	\$ 34,761.88	\$ 40,988.18	\$ 43,750.28	\$ 47,680.64	\$ 52,129.38	\$ 62,401.77	\$ 71,659.38	\$ 53,779.35
Number of Retired members	90	540	845	753	774	1,336	640	4,978
Ten year Averages								
Average Monthly benefit	\$ 147.20	\$ 384.07	\$ 670.05	\$ 1,029.48	\$ 1,428.29	\$ 2,275.21	\$ 3,010.88	\$ 1,505.06
Average AFC	\$ 35,005.11	\$ 35,585.77	\$ 39,035.59	\$ 43,521.13	\$ 47,559.71	\$ 57,226.01	\$ 64,469.60	\$ 48,449.26
Number of Retired members	1,099	8,361	10,733	8,971	7,937	20,268	6,039	63,408

Note: Benefit amounts represent original monthly benefit at retirement for all retirees who retired during the referenced period and, for comparison purposes, do not include benefit adjustments. Although a member's retirement eligibility and Average Final Compensation (AFC) may include service from other correlated Systems, the Years of Credited Service in this schedule represents only service credit used for calculating the monthly benefit under this respective System.

Police Officers Retirement System

Retired Members by Years of Service

	Years of Credited Service							Avs/Tot
	0 to 5	5+ to 10	10+ to 15	15+ to 20	20+ to 25	25+ to 30	30 Plus	
Period 07/01/2010 to 06/30/2011								
Average Monthly benefit	\$ 247.37	\$ 708.80	\$ 1,023.31	\$ 1,474.19	\$ 1,933.02	\$ 2,484.33	\$ 3,569.41	\$ 1,585.99
Average AFC	\$ 37,600.27	\$ 39,952.37	\$ 40,400.70	\$ 44,622.87	\$ 47,089.42	\$ 55,621.41	\$ 65,042.40	\$ 46,655.15
Number of Retired members	92	157	181	117	145	274	40	1,006
Period 07/01/2011 to 06/30/2012								
Average Monthly benefit	\$ 299.14	\$ 714.20	\$ 1,052.50	\$ 1,427.66	\$ 2,045.54	\$ 2,498.87	\$ 3,609.15	\$ 1,773.27
Average AFC	\$ 44,750.04	\$ 39,977.95	\$ 42,779.30	\$ 43,692.98	\$ 51,114.24	\$ 56,323.94	\$ 66,397.34	\$ 49,905.44
Number of Retired members	125	200	184	156	217	552	67	1,501
Period 07/01/2012 to 06/30/2013								
Average Monthly benefit	\$ 225.30	\$ 644.64	\$ 1,062.63	\$ 1,544.22	\$ 1,923.69	\$ 2,420.72	\$ 3,640.68	\$ 1,672.07
Average AFC	\$ 45,104.35	\$ 38,218.81	\$ 41,442.32	\$ 47,487.15	\$ 48,478.52	\$ 54,611.27	\$ 68,020.52	\$ 48,265.26
Number of Retired members	80	170	164	161	185	421	25	1,206
Period 07/01/2013 to 06/30/2014								
Average Monthly benefit	\$ 271.83	\$ 869.27	\$ 1,202.89	\$ 1,448.14	\$ 2,051.64	\$ 2,370.10	\$ 4,282.03	\$ 1,483.62
Average AFC	\$ 43,936.82	\$ 40,539.73	\$ 43,507.03	\$ 45,089.53	\$ 50,432.14	\$ 52,417.06	\$ 76,060.04	\$ 46,695.67
Number of Retired members	86	144	147	125	85	145	22	754
Period 07/01/2014 to 06/30/2015								
Average Monthly benefit	\$ 233.66	\$ 720.71	\$ 994.86	\$ 1,380.11	\$ 1,923.84	\$ 2,562.22	\$ 3,486.38	\$ 1,510.21
Average AFC	\$ 40,204.33	\$ 39,918.60	\$ 42,077.87	\$ 43,569.64	\$ 49,715.38	\$ 57,066.54	\$ 66,611.71	\$ 46,902.35
Number of Retired members	60	173	131	152	145	176	28	865
Period 07/01/2015 to 06/30/2016								
Average Monthly benefit	\$ 294.00	\$ 767.13	\$ 1,098.37	\$ 1,444.82	\$ 2,029.49	\$ 2,456.72	\$ 3,375.67	\$ 1,581.09
Average AFC	\$ 44,395.71	\$ 41,378.44	\$ 42,669.93	\$ 45,791.64	\$ 52,667.52	\$ 54,734.15	\$ 61,777.51	\$ 48,165.41
Number of Retired members	67	153	137	128	118	204	35	842
Period 07/01/2016 to 06/30/2017								
Average Monthly benefit	\$ 249.11	\$ 755.37	\$ 1,110.28	\$ 1,573.83	\$ 1,967.60	\$ 2,644.64	\$ 3,763.61	\$ 1,734.72
Average AFC	\$ 43,820.41	\$ 42,088.24	\$ 44,977.17	\$ 48,696.31	\$ 51,139.16	\$ 58,377.87	\$ 71,064.90	\$ 50,961.08
Number of Retired members	78	127	148	141	131	221	61	907
Period 07/01/2017 to 06/30/2018								
Average Monthly benefit	\$ 309.68	\$ 728.12	\$ 1,105.43	\$ 1,635.16	\$ 1,956.60	\$ 2,766.85	\$ 3,923.16	\$ 1,812.66
Average AFC	\$ 46,210.83	\$ 45,715.89	\$ 45,557.76	\$ 50,962.75	\$ 50,536.01	\$ 61,573.83	\$ 69,295.20	\$ 52,815.13
Number of Retired members	66	122	154	130	138	223	62	895
Period 07/01/2018 to 06/30/2019								
Average Monthly benefit	\$ 287.33	\$ 706.64	\$ 1,107.38	\$ 1,645.51	\$ 2,148.57	\$ 2,785.07	\$ 3,903.62	\$ 1,909.59
Average AFC	\$ 48,890.66	\$ 47,608.00	\$ 47,292.17	\$ 54,243.24	\$ 56,062.06	\$ 61,544.26	\$ 70,200.52	\$ 55,525.43
Number of Retired members	71	121	128	123	138	246	74	901
Period 07/01/2019 to 06/30/2020								
Average Monthly benefit	\$ 330.13	\$ 648.39	\$ 1,090.06	\$ 1,675.33	\$ 2,175.26	\$ 2,892.21	\$ 4,032.11	\$ 2,008.80
Average AFC	\$ 48,125.69	\$ 45,635.42	\$ 47,401.13	\$ 54,435.37	\$ 56,764.72	\$ 63,998.30	\$ 73,431.30	\$ 56,602.87
Number of Retired members	46	94	129	121	138	244	62	834
Ten year Averages								
Average Monthly benefit	\$ 273.31	\$ 727.01	\$ 1,082.97	\$ 1,520.78	\$ 2,012.04	\$ 2,574.76	\$ 3,775.74	\$ 1,711.63
Average AFC	\$ 44,072.59	\$ 41,624.52	\$ 43,629.67	\$ 47,675.88	\$ 51,279.52	\$ 57,472.90	\$ 68,971.78	\$ 50,161.33
Number of Retired members	771	1,461	1,503	1,354	1,440	2,706	476	9,711

Note: Benefit amounts represent original monthly benefit at retirement for all retirees who retired during the referenced period and, for comparison purposes, do not include benefit adjustments. Although a member's retirement eligibility and Average Final Compensation (AFC) may include service from other correlated Systems, the Years of Credited Service in this schedule represents only service credit used for calculating the monthly benefit under this respective System.

General Assembly Retirement System Retired Members by Years of Service

	Years of Credited Service							Avg/Tot
	0 to 5	5+ to 10	10+ to 15	15+ to 20	20+ to 25	25+ to 30	30 Plus	
Period 07/01/2010 to 06/30/2011								
Average Monthly benefit	\$ 132.70		\$ 1,068.00	\$ 1,142.12	\$ 1,901.69	\$ 2,838.65	\$ 3,207.33	\$ 1,852.00
Average AFC	\$ 22,400.00		\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 24,200.00	\$ 27,900.00	\$ 23,727.27
Number of Retired members	1		3	1	2	2	2	11
Period 07/01/2011 to 06/30/2012								
Average Monthly benefit		\$ 719.79	\$ 1,097.69	\$ 1,541.77	\$ 1,945.10		\$ 2,092.90	\$ 1,468.33
Average AFC		\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00		\$ 22,400.00	\$ 22,400.00
Number of Retired members		1	5	1	4		1	12
Period 07/01/2012 to 06/30/2013								
Average Monthly benefit		\$ 831.73	\$ 1,039.12	\$ 1,448.99	\$ 1,898.75	\$ 1,886.18	\$ 2,305.65	\$ 1,652.52
Average AFC		\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00
Number of Retired members		1	5	2	4	3	4	19
Period 07/01/2013 to 06/30/2014								
Average Monthly benefit	\$ 152.97	\$ 539.84			\$ 2,313.46		\$ 2,547.40	\$ 1,387.75
Average AFC	\$ 22,400.00	\$ 22,400.00			\$ 26,000.00		\$ 22,400.00	\$ 23,300.00
Number of Retired members	1	1			1		1	4
Period 07/01/2014 to 06/30/2015								
Average Monthly benefit			\$ 997.75	\$ 1,281.62	\$ 1,822.57	\$ 2,256.56		\$ 1,440.18
Average AFC			\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00		\$ 22,400.00
Number of Retired members			3	4	3	1		11
Period 07/01/2015 to 06/30/2016								
Average Monthly benefit	\$ 407.65				\$ 1,798.98	\$ 3,194.91		\$ 1,799.50
Average AFC	\$ 22,400.00				\$ 22,400.00	\$ 33,400.00		\$ 25,150.00
Number of Retired members	1				2	1		4
Period 07/01/2016 to 06/30/2017								
Average Monthly benefit	\$ 342.95		\$ 1,169.65	\$ 1,489.83	\$ 2,008.43	\$ 1,696.83	\$ 2,202.97	\$ 1,528.00
Average AFC	\$ 26,000.00		\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,760.00
Number of Retired members	1		1	3	1	3	1	10
Period 07/01/2017 to 06/30/2018								
Average Monthly benefit			\$ 813.02	\$ 1,240.47	\$ 1,507.91	\$ 2,207.87		\$ 1,316.00
Average AFC			\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00		\$ 22,400.00
Number of Retired members			2	1	1	1		5
Period 07/01/2018 to 06/30/2019								
Average Monthly benefit		\$ 584.50		\$ 1,230.74	\$ 2,030.88	\$ 2,554.87		\$ 1,559.00
Average AFC		\$ 22,400.00		\$ 22,400.00	\$ 22,400.00	\$ 22,400.00		\$ 22,400.00
Number of Retired members		2		3	2	2		9
Period 07/01/2019 to 06/30/2020								
Average Monthly benefit	\$ 179.95		\$ 926.42					\$ 552.50
Average AFC	\$ 22,400.00		\$ 22,400.00					\$ 22,400.00
Number of Retired members	1		1					2
Ten year Averages								
Average Monthly benefit	\$ 243.24	\$ 652.07	\$ 1,030.17	\$ 1,340.70	\$ 1,906.80	\$ 2,245.80	\$ 2,497.84	\$ 1,551.75
Average AFC	\$ 23,120.00	\$ 22,400.00	\$ 22,400.00	\$ 22,400.00	\$ 22,580.00	\$ 23,523.07	\$ 23,622.22	\$ 22,777.01
Number of Retired members	5	5	20	15	20	13	9	87

Note: Benefit amounts represent original monthly benefit at retirement for all retirees who retired during the referenced period and, for comparison purposes, do not include benefit adjustments. Although a member's retirement eligibility and Average Final Compensation (AFC) may include service from other correlated Systems, the Years of Credited Service in this schedule represents only service credit used for calculating the monthly benefit under this respective System.

Judges and Solicitors Retirement System Retired Members by Years of Service

	Years of Credited Service							Avs/Tot
	0 to 5	5+ to 10	10+ to 15	15+ to 20	20+ to 25	25+ to 30	30 Plus	
Period 07/01/2010 to 06/30/2011								
Average Monthly benefit					\$ 7,730.82	\$ 8,138.15	\$ 9,378.37	\$ 8,508.22
Average AFC					\$ 129,454.75	\$ 130,312.00	\$ 127,740.25	\$ 128,788.00
Number of Retired members					4	1	4	9
Period 07/01/2011 to 06/30/2012								
Average Monthly benefit			\$ 5,654.22			\$ 7,647.17	\$ 9,687.67	\$ 8,335.16
Average AFC			\$ 126,883.00			\$ 126,883.00	\$ 129,169.00	\$ 128,026.00
Number of Retired members			1			2	3	6
Period 07/01/2012 to 06/30/2013								
Average Monthly benefit		\$ 4,309.38	\$ 7,974.96	\$ 7,905.00			\$ 10,490.48	\$ 7,256.71
Average AFC		\$ 130,689.00	\$ 134,221.00	\$ 133,043.66			\$ 139,873.00	\$ 133,514.71
Number of Retired members		2	1	3			1	7
Period 07/01/2013 to 06/30/2014								
Average Monthly benefit			\$ 6,962.75	\$ 7,765.10	\$ 9,405.95	\$ 10,066.58		\$ 8,538.00
Average AFC			\$ 132,455.00	\$ 130,689.00	\$ 134,221.00	\$ 134,221.00		\$ 133,043.66
Number of Retired members			2	1	1	2		6
Period 07/01/2014 to 06/30/2015								
Average Monthly benefit			\$ 7,920.42	\$ 7,931.71	\$ 8,891.35	\$ 10,808.40		\$ 8,615.00
Average AFC			\$ 133,303.00	\$ 135,705.00	\$ 136,905.50	\$ 144,112.00		\$ 136,905.85
Number of Retired members			1	3	2	1		7
Period 07/01/2015 to 06/30/2016								
Average Monthly benefit							\$ 9,808.35	\$ 9,808.33
Average AFC							\$ 136,906.00	\$ 136,906.00
Number of Retired members							6	6
Period 07/01/2016 to 06/30/2017								
Average Monthly benefit	\$ 2,828.74				\$ 6,449.04	\$ 8,983.69	\$ 10,880.55	\$ 7,624.80
Average AFC	\$ 141,354.00				\$ 137,634.00	\$ 141,354.00	\$ 145,074.00	\$ 141,354.00
Number of Retired members	1				1	2	1	5
Period 07/01/2017 to 06/30/2018								
Average Monthly benefit		\$ 3,236.95			\$ 8,177.75	\$ 8,810.26	\$ 11,159.55	\$ 8,168.57
Average AFC		\$ 141,354.00			\$ 137,634.00	\$ 141,354.00	\$ 148,794.00	\$ 141,354.00
Number of Retired members		1			2	3	1	7
Period 07/01/2018 to 06/30/2019								
Average Monthly benefit		\$ 8,398.78	\$ 5,242.65			\$ 8,399.66	\$ 10,601.55	\$ 8,160.00
Average AFC		\$ 141,354.00	\$ 137,634.00			\$ 141,354.00	\$ 141,354.00	\$ 140,424.00
Number of Retired members		1	1			1	1	4
Period 07/01/2019 to 06/30/2020								
Average Monthly benefit		\$ 11,255.18	\$ 11,405.27	\$ 11,111.60	\$ 11,530.19	\$ 14,396.55		\$ 11,587.44
Average AFC		\$ 189,428.00	\$ 191,954.00	\$ 189,428.00	\$ 186,902.00	\$ 191,954.00		\$ 189,708.66
Number of Retired members		2	1	4	1	1		9
Ten year Averages								
Average Monthly benefit	\$ 2,828.74	\$ 7,127.47	\$ 7,446.14	\$ 8,524.97	\$ 8,842.24	\$ 10,185.56		\$ 8,788.06
Average AFC	\$ 141,354.00	\$ 153,823.66	\$ 141,272.14	\$ 145,853.77	\$ 140,548.92	\$ 138,071.76		\$ 142,503.21
Number of Retired members	1	6	7	18	13	21		66

Note: Benefit amounts represent original monthly benefit at retirement for all retirees who retired during the referenced period and, for comparison purposes, do not include benefit adjustments.

South Carolina National Guard Supplemental Retirement Plan

Retired Members by Years of Service

	Years of Credited Service						Avg/Tot	
	0 to 5	5+ to 10	10+ to 15	15+ to 20	20+ to 25	25+ to 30		30 Plus
Period 07/01/2010 to 06/30/2011								
Average Monthly benefit				\$ 50.00	\$ 61.42	\$ 88.15	\$ 100.00	\$ 76.17
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				39	116	65	82	302
Period 07/01/2011 to 06/30/2012								
Average Monthly benefit				\$ 50.00	\$ 62.24	\$ 91.02	\$ 100.00	\$ 73.48
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				49	107	39	63	258
Period 07/01/2012 to 06/30/2013								
Average Monthly benefit				\$ 50.00	\$ 61.66	\$ 88.02	\$ 100.00	\$ 72.69
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				50	105	48	57	260
Period 07/01/2013 to 06/30/2014								
Average Monthly benefit				\$ 50.00	\$ 61.96	\$ 90.71	\$ 100.00	\$ 71.78
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				34	79	28	35	176
Period 07/01/2014 to 06/30/2015								
Average Monthly benefit				\$ 50.00	\$ 62.46	\$ 90.27	\$ 100.00	\$ 76.33
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				26	67	36	47	176
Period 07/01/2015 to 06/30/2016								
Average Monthly benefit				\$ 50.00	\$ 61.27	\$ 89.48	\$ 100.00	\$ 73.65
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				28	90	49	38	205
Period 07/01/2016 to 06/30/2017								
Average Monthly benefit				\$ 50.00	\$ 61.75	\$ 90.31	\$ 100.00	\$ 73.39
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				30	94	48	37	209
Period 07/01/2017 to 06/30/2018								
Average Monthly benefit				\$ 50.00	\$ 61.48	\$ 89.57	\$ 100.00	\$ 73.90
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				30	81	35	45	191
Period 07/01/2018 to 06/30/2019								
Average Monthly benefit				\$ 50.00	\$ 61.15	\$ 90.76	\$ 100.00	\$ 74.56
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				25	100	39	52	216
Period 07/01/2019 to 06/30/2020								
Average Monthly benefit				\$ 50.00	\$ 62.84	\$ 89.09	\$ 100.00	\$ 75.00
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				28	86	44	45	203
Ten year Averages								
Average Monthly benefit				\$ 50.00	\$ 61.79	\$ 89.58	\$ 100.00	\$ 74.14
Average AFC				\$ -	\$ -	\$ -	\$ -	\$ -
Number of Retired members				339	925	431	501	2,196

Note: Benefit amounts represent original monthly benefit at retirement for all retirees who retired during the referenced period.

South Carolina Retirement System Principal Participating Employers in Fiscal Year 2020 and Ten Years Prior Fiscal Year 2011

	Fiscal Year 2020					Fiscal Year 2011				
	Covered Employees ¹	Rank	Percentage of Total System	Total Active Members	Total Working Retirees	Covered Employees ¹	Rank	Percentage of Total System	Total Active Members	Total Working Retirees
Participating Government										
State Agency ²	32,413	1	13.69%	30,023	2,390	32,841	1	14.77%	28,894	3,947
School District of Greenville County	9,714	2	4.10%	8,815	899	8,988	2	4.04%	7,772	1,216
MUSC Hospital	7,553	3	3.19%	7,338	215	5,120	6	2.30%	4,885	235
University of South Carolina	6,444	4	2.72%	5,828	616	5,285	5	2.37%	4,347	938
Lexington Medical Center	6,324	5	2.67%	6,126	198	4,402	8	1.98%	4,240	162
Horry County School District	6,138	6	2.59%	5,796	342	5,051	7	2.27%	4,509	542
Charleston County School District	5,142	7	2.17%	4,833	309	5,582	3	2.51%	4,946	636
Lexington County School District 1	4,224	8	1.78%	3,924	300	3,344		1.50%	2,945	399
Berkeley County Department of Education	4,200	9	1.77%	3,919	281	3,727	10	1.67%	3,273	454
Richland County School District 1	4,198	10	1.77%	3,674	524	4,203	9	1.89%	3,492	711
Spartanburg Regional Medical Center	3,616		1.53%	3,346	270	5,415	4	2.43%	5,152	263
All Other	146,637		62.02%	134,073	12,564	138,364		62.27%	122,071	16,293
Total ³	236,603		100.00%	217,695	18,908	222,322		100.00%	196,526	25,796

In 2020, "All Other" consisted of:

Type	Number	Employees
Higher Ed/Quasi-State	31	19,406
City/County	578	56,766
Public Schools	111	70,465
Total	720	146,637

In 2011, "All Other" consisted of:

Type	Number	Employees
Higher Ed/Quasi-State	31	18,436
City/County	574	51,632
Public Schools	110	68,296
Total	715	138,364

¹ Employers are considered to be participating employers if they submit contributions for an active member or working retiree during the fiscal year. The number of covered employees represents the total number of employees reported by the employer throughout the fiscal year which includes working retirees and for fiscal year 2011 TERI participants.

² Although each state agency reports separately, the State is considered the primary government and therefore, all state agencies are included as a single employer. Institutions of Higher Education and Quasi-State Agencies are counted as separate employers.

³ Fiscal Year 2020 total includes 731 governmental entities and fiscal year 2011 total includes 726 governmental entities.

Police Officers Retirement System Principal Participating Employers in Fiscal Year 2020 and Ten Years Prior Fiscal Year 2011

	Fiscal Year 2020					Fiscal Year 2011				
	Covered Employees ¹	Rank	Percentage of Total System	Total Active Members	Total Working Retirees	Covered Employees ¹	Rank	Percentage of Total System	Total Active Members	Total Working Retirees
Participating Government										
State Agency ²	9,861	1	29.84%	9,148	713	10,619	1	34.39%	9,785	834
Horry County Council	1,040	2	3.14%	977	63	902	3	2.92%	865	37
County Council of Richland County	1016	3	3.07%	856	160	978	2	3.16%	830	148
Greenville County Council	927	4	2.80%	811	116	790	6	2.55%	686	104
City of Columbia	894	5	2.70%	838	56	879	4	2.84%	812	67
City of Charleston	809	6	2.44%	776	33	760	7	2.46%	696	64
County of Lexington	732	7	2.21%	657	75	564	9	1.82%	493	71
County of Charleston	718	8	2.17%	618	100	795	5	2.57%	689	106
City of North Charleston	650	9	1.96%	627	23	583	8	1.88%	557	26
Spartanburg County Council	583	10	1.76%	477	106	552	10	1.78%	459	93
All Other	15,813		47.91%	13,912	1,901	13,455		43.63%	11,925	1,530
Total ³	33,043		100.00%	29,697	3,346	30,877		100.00%	27,797	3,080
	In 2020, "All Other" consisted of:					In 2011, "All Other" consisted of:				
	<u>Type</u>	<u>Number</u>	<u>Employees</u>			<u>Type</u>	<u>Number</u>	<u>Employees</u>		
	Higher Ed/Quasi-State	28	707			Higher Ed/Quasi-State	26	576		
	City/County	322	14,903			City/County	303	12,751		
	Public Schools	60	203			Public Schools	45	128		
	Total	410	15,813			Total	374	13,455		

¹ Employers are considered to be participating employers if they submit contributions for an active member or working retiree during the fiscal year. The number of covered employees represents the total number of employees reported by the employer throughout the fiscal year which includes working retirees.

² Although each state agency reports separately, the State is considered the primary government and therefore, all state agencies are included as a single employer. Institutions of Higher Education and Quasi-State Agencies are counted as separate employers.

³ Fiscal Year 2020 total includes 420 governmental entities and fiscal year 2011 total includes 384 governmental entities.

Revenue Capacity Information

Revenue Capacity Information is intended to assist users in realizing and reviewing the factors that affect the Systems' ability to generate revenues. Employee and employer contribution rates for the most recent ten fiscal years are presented to aid in this category.

Prior to fiscal year 2012, the employee contribution rates for SCRS and PORS were fixed by statute and had historically been changed infrequently. Any contribution increases determined by the annual actuarial valuations of the systems were made in the employer contribution rate. Retirement reform legislation enacted in 2012 set an increased contribution schedule for SCRS and PORS employee and employer contribution rates. The Retirement Funding and Administration Act of 2017 again increased, but also established a ceiling for, employee contribution rates. Effective July 1, 2017, employee rates were increased to a capped rate of 9.00 percent for SCRS and 9.75 percent for PORS. The legislation also increased employer contribution rates beginning July 1, 2017 for both SCRS and PORS by two percentage points and further scheduled employer contribution rates to increase by a minimum of one percentage point each year in accordance with state statute. If the scheduled contributions are not sufficient to meet the funding periods set in state statute, the board shall increase the employer contribution rates as necessary to meet the funding periods set for the applicable year. The General Assembly postponed the one percent increase in the SCRS and PORS employer contribution rates that was scheduled to go into effect beginning July 1, 2020.

Pension reform legislation modified statute such that the employer contribution rates for SCRS and PORS to be further increased, not to exceed one-half of one percent in any one year if necessary, in order to improve the funding of the plans. The statute set rates intended to reduce the unfunded liability of SCRS and PORS to the maximum amortization period of 20 years from 30 years over a ten-year schedule, as determined by the annual actuarial valuations of the plan. Finally, under the revised statute, the contribution rates for SCRS and PORS may not be decreased until the plans are at least 85 percent funded.

Employee Contribution Rates

Most Recent 10 Fiscal Years

Fiscal Year Ended June 30,	SCRS Class II & III	PORS Class II & III	GARS ¹	JSRS	SCNG
2020	9.00%	9.75%	11.00%	10.00%	N/A
2019	9.00%	9.75%	11.00%	10.00%	N/A
2018	9.00%	9.75%	11.00%	10.00%	N/A
2017	8.66%	9.24%	11.00%	10.00%	N/A
2016	8.16%	8.74%	11.00%	10.00%	N/A
2015	8.00%	8.41%	11.00%	10.00%	N/A
2014	7.50%	7.84%	11.00%	10.00%	N/A
2013	7.00%	7.00%	11.00%	10.00%	N/A
2012	6.50%	6.50%	10.00%	10.00%	N/A
2011	6.50%	6.50%	10.00%	10.00%	N/A

¹ The General Assembly Retirement System (GARS) employee contribution rate increased from 10 percent of earnable compensation to 11 percent of earnable compensation effective January 1, 2013.

Employer Contribution Rates¹

Most Recent 10 Fiscal Years

Fiscal Year Ended June 30,	SCRS - Class II & III ²		PORS - Class II & III ²			JSRS ³
	All Employers	Death Benefit	All Employers	Death Benefit	Accidental Death	All Employers
2020	15.410%	0.15%	17.840%	0.20%	0.20%	62.94%
2019	14.410%	0.15%	16.840%	0.20%	0.20%	52.49%
2018	13.410%	0.15%	15.840%	0.20%	0.20%	49.42%
2017	11.410%	0.15%	13.840%	0.20%	0.20%	47.97%
2016	10.910%	0.15%	13.340%	0.20%	0.20%	47.97%
2015	10.750%	0.15%	13.010%	0.20%	0.20%	47.97%
2014	10.450%	0.15%	12.440%	0.20%	0.20%	47.33%
2013	10.450%	0.15%	11.900%	0.20%	0.20%	45.09%
2012	9.385%	0.15%	11.363%	0.20%	0.20%	45.09%
2011	9.240%	0.15%	11.130%	0.20%	0.20%	45.09%

¹ This schedule does not include employer contributions for the GARS because amounts are paid as an annual lump-sum appropriation, for which incidental death benefit contributions are included. The schedule also does not include employer contributions for the SCNG which are paid through an annual State appropriation.

² For employers with retiree insurance coverage, an additional retiree health insurance surcharge is collected by the Retirement Systems as a pass-through agency and amounts are remitted to the South Carolina Retiree Health Insurance Trust Fund; therefore, these insurance rates are not included in this schedule.

³ The contribution rate includes the cost of incidental death benefits.

Demographic and Economic Information

Demographic and Economic Information is intended to assist users in evaluating the socioeconomic environment within which the Systems operate and to provide information that facilitates comparisons of financial statement information over time and among pension plans. Active and retired member data for the past ten fiscal years can be found in the Actuarial Section on Pages 185-187 and Pages 193-195.

A list of the number of employers currently participating in the SCRS and PORS systems is presented in this section. Participation by state agencies, institutions of higher education, and public-school districts is mandated by South Carolina State Statute. The list of participating employers includes only other employers covered by an Employer Resolution and Application. This list includes employers for which contributions were reported during the fiscal year ending June 30, 2020.

	<u>SCRS</u>	<u>PORS</u>
State Agencies/Quasi-State and Institutions of Higher Education	34	29
Public Schools	117	60
Participating Employers Covered by an Employer Resolution and Application	<u>580</u>	<u>331</u>
Total	731	420

Participating Employers

Participating Employers Covered by an Employer Resolution and Application
As of June 30, 2020

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
ABBEVILLE COUNTY COUNCIL	Y	Y
AIKEN BAMBERG BARNWELL EDGEFIELD REGIONAL LIBRARY BOARD	Y	
AIKEN COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	Y
ALLENDALE COUNTY COUNCIL	Y	Y
ALLENDALE COUNTY OFFICE ON AGING	Y	
ALLENDALE HAMPTON JASPER REGIONAL LIBRARY	Y	
ALLENDALE-BARNWELL DISABILITIES & SPECIAL NEEDS BOARD	Y	
ALLIGATOR RURAL WATER & SEWER CO	Y	
ANDERSON COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
ANDERSON COUNTY COUNCIL	Y	Y
ANDERSON COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
ANDERSON COUNTY FIRE PROTECTION COMMISSION	Y	Y
ANDERSON COUNTY LIBRARY BOARD	Y	Y
ANDERSON COUNTY SOIL & WATER CONSERVATION DISTRICT	Y	
ANDERSON REGIONAL JOINT WATER SYSTEM	Y	
AXIS I CENTER OF BARNWELL	Y	
BAMBERG BOARD OF PUBLIC WORKS	Y	
BAMBERG COUNTY COUNCIL	Y	Y
BAMBERG COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
BAMBERG COUNTY OFFICE ON AGING	Y	Y
BARNWELL COUNTY COUNCIL	Y	Y
BDST SERVICES, INC.	Y	
BEAUFORT MEMORIAL HOSPITAL	Y	Y
BEAUFORT SOIL & WATER CONSERVATION DISTRICT	Y	
BEAUFORT-JASPER COUNTY WATER AUTHORITY	Y	
BEECH ISLAND RURAL COMMUNITY WATER DISTRICT	Y	
BELMONT FIRE & SANITATION DISTRICT COMMISSION	Y	Y
BELTON-HONEA PATH WATER AUTHORITY	Y	
BEREA PUBLIC SERVICE DISTRICT COMMISSION	Y	
BERKELEY CHARLESTON DORCHESTER COUNCIL	Y	
BERKELEY CHARLESTON DORCHESTER RTMA	Y	
BERKELEY COUNTY GOVERNMENT	Y	Y
BETHUNE RURAL WATER COMPANY, INC.	Y	
BIG CREEK WATER AND SEWERAGE DISTRICT	Y	
BLUE RIDGE RURAL WATER COMPANY, INC.	Y	
BLUFFTON TOWNSHIP FIRE DISTRICT	Y	Y
BOILING SPRINGS FIRE DEPARTMENT		Y
BOILING SPRINGS FIRE DISTRICT, GREENVILLE	Y	Y
BROADWAY WATER AND SEWER DISTRICT	Y	
BROWNS CREEK WATER COMPANY, INC.	Y	Y
BUCKSPORT WATER SYSTEM, INC.	Y	
BURTON CENTER FOR DISABILITIES & SPECIAL NEEDS	Y	Y
BURTON FIRE DISTRICT	Y	Y
CALHOUN COUNTY COUNCIL	Y	Y
CALHOUN COUNTY COUNCIL ON AGING	Y	Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
CALHOUN COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
CAROMI VILLAGE VOLUNTEER FIRE DEPARTMENT		Y
CATAWBA AREA AGENCY ON AGING	Y	
CATAWBA REGIONAL COUNCIL OF GOVERNMENTS	Y	
CENTRAL MIDLANDS COUNCIL OF GOVERNMENTS	Y	
CENTRAL MIDLANDS REGIONAL TRANSIT AUTHORITY	Y	
CHARLESTON AREA TRANSPORTATION AUTHORITY	Y	
CHARLESTON COMMISSIONERS OF PUBLIC WORKS	Y	
CHARLESTON COUNTY AIRPORT DISTRICT	Y	Y
CHARLESTON COUNTY HOUSING & REDEVELOPMENT AUTHORITY	Y	
CHARLESTON COUNTY HUMAN SERVICES PALMETTO COMMUNITY ACTION	Y	
CHARLESTON COUNTY LIBRARY	Y	
CHARLESTON COUNTY PARK AND RECREATION COMMISSION	Y	Y
CHARLESTON NAVAL COMPLEX REDEVELOPMENT	Y	
CHEROKEE COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
CHEROKEE COUNTY COUNCIL	Y	Y
CHEROKEE COUNTY DEVELOPMENT BOARD	Y	
CHEROKEE COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
CHEROKEE COUNTY PUBLIC LIBRARY	Y	
CHEROKEE COUNTY RECREATION DISTRICT	Y	
CHEROKEE SPRINGS FIRE DISTRICT		Y
CHESCO SERVICES	Y	Y
CHESTER COUNTY BOARD OF DIRECTORS	Y	Y
CHESTER COUNTY HOSPITAL & NURSING CENTER, INC.	Y	
CHESTER COUNTY LIBRARY	Y	
CHESTER METRO DISTRICT	Y	
CHESTER SEWER DISTRICT	Y	
CHESTER/LANCASTER COUNTY DISABILITIES & SPECIAL NEEDS BOARD, INC.	Y	
CHESTERFIELD COUNTY COUNCIL	Y	Y
CHESTERFIELD COUNTY RURAL WATER CO, INC.	Y	Y
CHESTERFIELD SOIL & WATER CONSERVATION DISTRICT	Y	
CITY OF ABBEVILLE	Y	Y
CITY OF AIKEN		Y
CITY OF ANDERSON		Y
CITY OF BAMBERG	Y	Y
CITY OF BARNWELL	Y	Y
CITY OF BEAUFORT	Y	Y
CITY OF BELTON	Y	Y
CITY OF BENNETTSTVILLE	Y	Y
CITY OF CAMDEN & MUNICIPAL UTILITIES	Y	Y
CITY OF CAYCE	Y	Y
CITY OF CHARLESTON	Y	Y
CITY OF CHESTER	Y	Y
CITY OF CLEMSON	Y	Y
CITY OF CLINTON	Y	Y
CITY OF COLUMBIA	Y	Y
CITY OF CONWAY	Y	Y
CITY OF DARLINGTON	Y	Y
CITY OF DENMARK	Y	Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
CITY OF DILLON	Y	Y
CITY OF EASLEY	Y	Y
CITY OF FLORENCE	Y	Y
CITY OF FOLLY BEACH	Y	Y
CITY OF FOREST ACRES	Y	Y
CITY OF FOUNTAIN INN	Y	Y
CITY OF GAFFNEY	Y	Y
CITY OF GEORGETOWN	Y	Y
CITY OF GOOSE CREEK	Y	Y
CITY OF GREENVILLE	Y	Y
CITY OF GREENWOOD	Y	Y
CITY OF GREER	Y	Y
CITY OF HANAHAN	Y	Y
CITY OF HARDEEVILLE	Y	Y
CITY OF HARTSVILLE	Y	Y
CITY OF INMAN	Y	Y
CITY OF ISLE OF PALMS	Y	Y
CITY OF JOHNSONVILLE	Y	Y
CITY OF LAKE CITY	Y	Y
CITY OF LANCASTER	Y	Y
CITY OF LAURENS	Y	Y
CITY OF LIBERTY	Y	Y
CITY OF LORIS	Y	Y
CITY OF MANNING	Y	Y
CITY OF MARION	Y	Y
CITY OF MAULDIN	Y	Y
CITY OF MULLINS	Y	Y
CITY OF MYRTLE BEACH	Y	Y
CITY OF NEW ELLENTON	Y	Y
CITY OF NEWBERRY	Y	Y
CITY OF NORTH AUGUSTA	Y	Y
CITY OF NORTH CHARLESTON	Y	Y
CITY OF NORTH MYRTLE BEACH		Y
CITY OF ORANGEBURG	Y	Y
CITY OF PICKENS	Y	Y
CITY OF ROCK HILL	Y	Y
CITY OF SENECA	Y	Y
CITY OF SIMPSONVILLE	Y	Y
CITY OF SPARTANBURG	Y	Y
CITY OF SUMTER	Y	Y
CITY OF TEGA CAY	Y	Y
CITY OF TRAVELERS REST	Y	Y
CITY OF UNION	Y	Y
CITY OF WALHALLA	Y	Y
CITY OF WALTERBORO	Y	Y
CITY OF WEST COLUMBIA	Y	Y
CITY OF WOODRUFF	Y	Y
CITY OF YORK	Y	Y
CLARENDON COUNTY	Y	Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
CLARENDON COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
CLARENDON COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	Y
CLEAR SPRING FIRE-RESCUE	Y	Y
CLINTON NEWBERRY NATURAL GAS AUTHORITY	Y	Y
COLLETON COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
COLUMBIA HOUSING AUTHORITY	Y	
COLUMBIA MUSEUM OF ART	Y	
COMBINED UTILITY SYSTEM – EASLEY	Y	
COMMISSION OF PUBLIC WORKS MUNICIPAL UTILITIES – NINETY SIX	Y	
COMMISSION ON PUBLIC WORKS – SUMMERVILLE	Y	
CONVERSE FIRE DISTRICT		Y
COUNTY COUNCIL FOR DORCHESTER COUNTY	Y	Y
COUNTY COUNCIL OF BEAUFORT COUNTY	Y	Y
COUNTY COUNCIL OF NEWBERRY COUNTY	Y	Y
COUNTY COUNCIL OF PICKENS COUNTY	Y	Y
COUNTY COUNCIL OF RICHLAND COUNTY	Y	Y
COUNTY OF AIKEN	Y	Y
COUNTY OF CHARLESTON	Y	Y
COUNTY OF COLLETON	Y	Y
COUNTY OF HAMPTON	Y	Y
COUNTY OF LAURENS	Y	Y
COUNTY OF LEXINGTON	Y	Y
COUNTY OF MARLBORO	Y	Y
COUNTY OF MCCORMICK	Y	Y
CROFT FIRE DISTRICT		Y
CULTURAL & HERITAGE COMMISSION OF YORK COUNTY	Y	
DARLINGTON COUNTY COMMUNITY ACTION AGENCY	Y	
DARLINGTON COUNTY COUNCIL	Y	Y
DARLINGTON COUNTY COUNCIL ON AGING	Y	
DARLINGTON COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
DARLINGTON COUNTY SOIL & WATER CONSERVATION DISTRICT	Y	
DARLINGTON COUNTY WATER & SEWER COMMISSION	Y	
DARLINGTON COURT LIBRARY COMMISSION	Y	
DAUFUSKIE ISLAND FIRE DISTRICT		Y
DILLON COUNTY COUNCIL	Y	Y
DILLON SOIL & WATER CONSERVATION DISTRICT	Y	
DONALDS-DUE WEST WATER & SEWER AUTHORITY	Y	
DONALDSON FIRE SERVICE AREA	Y	
DORCHESTER COUNTY BOARD OF DISABILITIES & SPECIAL NEEDS	Y	
DORCHESTER COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
DORCHESTER COUNTY LIBRARY	Y	
DORCHESTER COUNTY WATER AUTHORITY	Y	
DORCHESTER SENIORS, INC.	Y	
DUNCAN CHAPEL FIRE DISTRICT	Y	
EASLEY CENTRAL WATER DISTRICT	Y	
EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT	Y	
EDGEFIELD COUNTY COUNCIL	Y	Y
EDGEFIELD COUNTY WATER & SEWER AUTHORITY	Y	
ELLOREE COMMISSION OF PUBLIC WORKS	Y	

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
FAIRFIELD BEHAVIORAL HEALTH SERVICES	Y	
FAIRFIELD COUNTY COUNCIL	Y	Y
FAIRFIELD COUNTY COUNCIL ON AGING	Y	
FAIRFIELD COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
FAIRFIELD COUNTY LIBRARY	Y	
FAIRFIELD MEMORIAL HOSPITAL	Y	
FLINT HILL FIRE DISTRICT	Y	Y
FLORENCE COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
FLORENCE COUNTY COUNCIL	Y	Y
FLORENCE COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
FLORENCE REGIONAL AIRPORT	Y	Y
FORRESTER CENTER FOR BEHAVIORAL HEALTH	Y	
FRIPP ISLAND PUBLIC SERVICE DISTRICT	Y	Y
GAFFNEY BOARD OF PUBLIC WORKS	Y	
GANTT FIRE SEWER AND POLICE DISTRICT	Y	Y
GASTON RURAL COMMUNITY WATER DISTRICT	Y	
GATEWAY COUNSELING CENTER	Y	
GENERATIONS UNLIMITED	Y	
GEORGETOWN COUNTY ALCOHOL & DRUG ABUSE COMMISSION	Y	
GEORGETOWN COUNTY COUNCIL	Y	Y
GEORGETOWN COUNTY DISABILITIES & SPECIAL NEED BOARD	Y	
GEORGETOWN COUNTY WATER AND SEWER DISTRICT	Y	
GEORGETOWN SOIL & WATER CONSERVATION DISTRICT	Y	
GILBERT-SUMMIT RURAL WATER DISTRICT	Y	
GLASSY MOUNTAIN FIRE SERVICE AREA	Y	Y
GLEAMNS HUMAN RESOURCES COMMISSION	Y	
GLENDALE FIRE DEPARTMENT		Y
GLENN SPRINGS-PAULINE FIRE DEPARTMENT		Y
GRAND STRAND WATER & SEWER AUTHORITY	Y	
GRASSY POND WATER COMPANY, INC.	Y	
GREATER GREENVILLE SANITATION COMMISSION	Y	
GREENVILLE AIRPORT COMMISSION	Y	
GREENVILLE AREA DEVELOPMENT CORPORATION	Y	
GREENVILLE COMMISSION OF PUBLIC WORKS	Y	
GREENVILLE COUNTY COMMISSION ON ALCOHOL-DRUG ABUSE	Y	
GREENVILLE COUNTY COUNCIL	Y	Y
GREENVILLE COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	Y
GREENVILLE COUNTY LIBRARY	Y	Y
GREENVILLE COUNTY MUSEUM COMMISSION	Y	
GREENVILLE REDEVELOPMENT AUTHORITY	Y	
GREENVILLE-SPARTANBURG AIRPORT DISTRICT	Y	Y
GREENWOOD COMMISSION OF PUBLIC WORKS	Y	
GREENWOOD COUNTY COUNCIL	Y	Y
GREENWOOD COUNTY LIBRARY	Y	
GREENWOOD METROPOLITAN DISTRICT COMMISSION	Y	
GREENWOOD SOIL & WATER CONSERVATION DISTRICT	Y	
GREER COMMISSION OF PUBLIC WORKS	Y	Y
GREER DEVELOPMENT CORPORATION	Y	
HAMPTON COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
HANNAH SALEM FRIENDFIELD FIRE DISTRICT		Y
HARTSVILLE COMMUNITY CENTER BUILDING COMMISSION	Y	
HARVIN CLARENDON COUNTY LIBRARY	Y	
HAZEL PITTMAN CENTER	Y	
HIGH HILLS RURAL WATER COMPANY	Y	
HILLTOP FIRE DISTRICT	Y	Y
HILTON HEAD NO 1 PUBLIC SERVICE DISTRICT	Y	
HOLLY SPRINGS FIRE-RESCUE DISTRICT		Y
HOMELAND PARK WATER DISTRICT	Y	
HORRY COUNTY COUNCIL	Y	Y
HORRY COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
HORRY COUNTY SOLID WASTE AUTHORITY, INC.	Y	
HORRY SOIL CONSERVATION DISTRICT	Y	
HOUSING AUTHORITY OF CITY OF NEWBERRY	Y	
HOUSING AUTHORITY OF CITY OF SUMTER	Y	
HOUSING AUTHORITY OF CITY OF UNION	Y	Y
HOUSING AUTHORITY OF DARLINGTON	Y	
HOUSING AUTHORITY OF FLORENCE	Y	Y
HOUSING AUTHORITY OF FORT MILL	Y	
HOUSING AUTHORITY OF LANCASTER	Y	
HOUSING AUTHORITY OF THE CITY OF AIKEN	Y	
HOUSING AUTHORITY OF THE CITY OF CHARLESTON	Y	Y
HOUSING AUTHORITY OF THE CITY OF CHESTER	Y	
HOUSING AUTHORITY OF THE CITY OF CONWAY	Y	
HOUSING AUTHORITY OF THE CITY OF EASLEY	Y	
HOUSING AUTHORITY OF THE CITY OF GAFFNEY	Y	
HOUSING AUTHORITY OF THE CITY OF GREENWOOD	Y	
HOUSING AUTHORITY OF THE CITY OF MYRTLE BEACH	Y	
HOUSING AUTHORITY OF THE CITY OF NORTH CHARLESTON	Y	
HOUSING AUTHORITY OF THE CITY OF SPARTANBURG	Y	
HOUSING AUTHORITY OF TOWN OF WOODRUFF	Y	
HOWE SPRINGS FIRE DISTRICT		Y
INMAN COMMUNITY FIRE DEPARTMENT		Y
INMAN-CAMPOBELLO WATER DISTRICT	Y	Y
IRMO CHAPIN RECREATION DISTRICT	Y	Y
IRMO FIRE DISTRICT	Y	Y
ISLE OF PALMS WATER & SEWER COMMISSION	Y	
JAMES ISLAND PUBLIC SERVICE DISTRICT COMMISSION	Y	
JASPER COUNTY BOARD OF DISABILITIES & SPECIAL NEEDS	Y	
JASPER COUNTY COUNCIL	Y	Y
JOHNSONVILLE FIRE DEPARTMENT	Y	Y
JOINT MUNICIPAL WATER & SEWER COMMISSION	Y	
KEOWEE FIRE TAX DISTRICT		Y
KERSHAW COUNTY BOARD OF DISABILITIES & SPECIAL NEEDS	Y	
KERSHAW COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
KERSHAW COUNTY COUNCIL	Y	Y
LADY'S ISLAND-ST HELENA FIRE DISTRICT	Y	Y
LAKE CITY HOUSING AUTHORITY	Y	
LAKE CUNNINGHAM FIRE DISTRICT	Y	Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
LANCASTER COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
LANCASTER COUNTY COUNCIL	Y	Y
LANCASTER COUNTY COUNCIL ON AGING	Y	Y
LANCASTER COUNTY NATURAL GAS AUTHORITY	Y	
LANCASTER COUNTY WATER & SEWER DISTRICT	Y	
LANCASTER SOIL & WATER CONSERVATION DISTRICT	Y	
LAURENS COMMISSIONERS OF PUBLIC WORKS	Y	
LAURENS COUNTY DEVELOPMENT CORPORATION	Y	
LAURENS COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
LAURENS COUNTY WATER & SEWER COMMISSION	Y	Y
LEE COUNTY COUNCIL	Y	Y
LEE COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
LESSLIE RURAL FIRE TAX DISTRICT		Y
LEXINGTON MEDICAL CENTER	Y	Y
LEXINGTON/RICHLAND ALCOHOL & DRUG ABUSE COUNCIL	Y	
LIBERTY-CHESNEE-FINGERVILLE WATER DISTRICT	Y	
LITTLE RIVER WATER & SEWER COMPANY, INC.	Y	
LOWCOUNTRY COUNCIL OF GOVERNMENTS	Y	
LOWCOUNTRY REGIONAL EMS COUNCIL	Y	
LOWCOUNTRY REGIONAL TRANSPORTATION AUTHORITY	Y	
LOWCOUNTRY REGIONAL WATER SYSTEM	Y	
LOWER SAVANNAH COUNCIL OF GOVERNMENTS	Y	
LUGOFF FIRE DISTRICT		Y
LUGOFF WATER DISTRICT OF KERSHAW COUNTY	Y	
MARCO RURAL WATER COMPANY, INC.	Y	
MARION COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
MARION COUNTY COUNCIL	Y	Y
MARION COUNTY LIBRARY	Y	
MARION-DILLON COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
MARLBORO COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
MARLBORO WATER COMPANY	Y	
MCCORMICK COMMISSION OF PUBLIC WORKS	Y	
MCCORMICK COUNTY COUNCIL ON AGING	Y	Y
MCCORMICK COUNTY WATER & SEWER AUTHORITY	Y	
METROPOLITAN SEWER SUB-DISTRICT	Y	
METROPOLITAN SUBDISTRICT B WATER & SEWER	Y	
MID COUNTY WATER COMPANY, INC.	Y	
MONCK'S CORNER WATER WORKS COMMISSION	Y	
MT PLEASANT WATER & SEWER COMMISSION	Y	
MUNICIPAL ASSOCIATION OF SOUTH CAROLINA	Y	
MURRELLS INLET-GARDEN CITY FIRE DISTRICT	Y	Y
NEW ELLENTON COMMISSION OF PUBLIC WORKS	Y	
NEW LIFE CENTER	Y	
NEWBERRY COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
NEWBERRY COUNTY LIBRARY	Y	
NEWBERRY COUNTY WATER AND SEWER AUTHORITY	Y	
NORTH CHARLESTON SEWER DISTRICT	Y	
NORTH GREENVILLE FIRE DISTRICT		Y
NORTH SPARTANBURG AREA FIRE & RESCUE DISTRICT	Y	Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
OCONEE COUNTY	Y	Y
OCONEE DISABILITIES & SPECIAL NEEDS BOARD	Y	
OCONEE JOINT REGIONAL SEWER AUTHORITY	Y	
OLANTA RURAL FIRE DEPARTMENT		Y
OLD NINETY SIX TOURISM COMMISSION	Y	
OLD TOWN FIRE AND RESCUE DEPARTMENT	Y	
OLDE ENGLISH DISTRICT TOURISM COMMISSION	Y	
ORANGEBURG COUNTY COUNCIL	Y	Y
ORANGEBURG COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	Y
ORANGEBURG DEPARTMENT OF PUBLIC UTILITIES	Y	
PALMETTO STATE TEACHERS ASSOCIATION	Y	
PARKER SEWER & FIRE SUBDISTRICT	Y	Y
PARTNERSHIP FOR A GREATER GREENWOOD COUNTY	Y	
PEE DEE REGIONAL COUNCIL OF GOVERNMENTS	Y	
PEE DEE REGIONAL EMS, INC.	Y	
PEE DEE REGIONAL TRANSPORTATION AUTHORITY	Y	Y
PELHAM BATESVILLE FIRE DEPARTMENT	Y	Y
PENDLETON DISTRICT HISTORICAL & RECREATIONAL COMMISSION	Y	
PICKENS COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
PICKENS COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
PIEDMONT PARK FIRE DISTRICT	Y	Y
PIEDMONT PUBLIC SERVICE DISTRICT		Y
PINE RIDGE FIRE DEPARTMENT	Y	Y
PIONEER RURAL WATER DISTRICT	Y	
POPLAR SPRINGS FIRE DEPARTMENT		Y
POWDERSVILLE WATER DISTRICT	Y	
RECREATION DISTRICT & RECREATION COMMISSION OF RICHLAND COUNTY	Y	Y
RECREATION DISTRICT LEXINGTON COUNTY	Y	
REIDVILLE FIRE DISTRICT		Y
RENEWABLE WATER RESOURCES (RE-WA)	Y	
RICHLAND COUNTY PUBLIC LIBRARY	Y	Y
RICHLAND LEXINGTON AIRPORT DISTRICT	Y	Y
RICHLAND/LEXINGTON COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
RICHLAND MEMORIAL/PALMETTO HEALTH	Y	
RIVERBANKS PARK COMMISSION	Y	Y
ROCKY CREEK WATER COMPANY, INC.	Y	
ROEBUCK FIRE DEPARTMENT		Y
RUBICON	Y	
RURAL COMMUNITY WATER DISTRICT OF GEORGETOWN CO	Y	
SALUDA COMMISSION OF PUBLIC WORKS	Y	
SALUDA COUNTY COUNCIL	Y	Y
SALUDA COUNTY WATER & SEWER AUTHORITY	Y	
SANDY SPRINGS WATER COMPANY	Y	
SANTEE COOPER COUNTIES PROMOTION COMMISSION	Y	
SANTEE FIRE SERVICE DISTRICT	Y	Y
SANTEE-LYNCHES COUNCIL FOR GOVERNMENTS	Y	
SANTEE-WATEREE REGIONAL TRANSPORTATION AUTHORITY	Y	
SANTUCK HEBRON WATER COMPANY, INC.	Y	
SARDIS-TIMMONSVILLE FIRE DEPARTMENT		Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
SC APPALACHIAN COUNCIL OF GOVERNMENTS	Y	
SC ASSOCIATION OF COUNTIES	Y	
SC ASSOCIATION OF SCHOOL ADMINISTRATORS	Y	
SC ASSOCIATION OF SCHOOL BOARDS	Y	
SC ATHLETIC COACHES ASSOCIATION	Y	
SC EDUCATION ASSOCIATION	Y	
SC HIGH SCHOOL LEAGUE	Y	
SC LAW ENFORCEMENT OFFICERS ASSOCIATION	Y	
SC MIDLANDS EMERGENCY MEDICAL SERVICES MANAGEMENT ASSOCIATION	Y	
SC STATE CREDIT UNION	Y	
SC STATE EMPLOYEES' ASSOCIATION	Y	
SC STATE FIREFIGHTERS' ASSOCIATION	Y	
SHELDON FIRE DISTRICT	Y	Y
SHORELINE BEHAVIORAL HEALTH SERVICES	Y	Y
SIX MILE RURAL WATER DISTRICT	Y	
SLATER-MARIETTA FIRE DEPARTMENT		Y
SOUTH CAROLINA SHERIFFS' ASSOCIATION	Y	
SOUTH CAROLINA TECHNOLOGY & AVIATION CENTER	Y	
SOUTH GREENVILLE AREA FIRE DISTRICT	Y	Y
SOUTH ISLAND PUBLIC SERVICE DISTRICT	Y	
SOUTH LYNCHES FIRE DEPARTMENT		Y
SOUTHSIDE RURAL COMMUNITY WATER DISTRICT	Y	
SPARTANBURG COMMISSIONERS OF PUBLIC WORKS	Y	
SPARTANBURG COUNTY COUNCIL	Y	Y
SPARTANBURG PUBLIC LIBRARY	Y	Y
SPARTANBURG REGIONAL MEDICAL CENTER	Y	Y
SPARTANBURG SANITARY SEWER DISTRICT	Y	
ST ANDREWS PARISH PARKS & PLAYGROUNDS	Y	
ST ANDREWS PUBLIC SERVICE DISTRICT COMMISSION	Y	
ST GEORGE WATER AND SEWER DEPARTMENT	Y	
ST JOHN'S FIRE DISTRICT	Y	Y
ST PAUL'S FIRE DISTRICT	Y	Y
STARR-IVA WATER COMPANY	Y	
STARTEX JACKSON WELLFORD DUNCAN WATER DISTRICT	Y	
SUMTER CONSERVATION DISTRICT	Y	
SUMTER COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
SUMTER COUNTY COUNCIL	Y	Y
SUMTER COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	Y
SUMTER COUNTY LIBRARY	Y	
TAYLORS FIRE AND SEWER DISTRICT	Y	Y
THE ERNEST E. KENNEDY CENTER	Y	
THE PEE DEE TOURISM COMMISSION	Y	
THE RIVER ALLIANCE	Y	
THREE RIVERS SOLID WASTE AUTHORITY	Y	
TIGERVILLE FIRE DEPARTMENT		Y
TOWN OF ALLENDALE	Y	Y
TOWN OF ANDREWS	Y	Y
TOWN OF ATLANTIC BEACH	Y	Y
TOWN OF AYNOR	Y	Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
TOWN OF BATESBURG-LEESVILLE	Y	Y
TOWN OF BETHUNE	Y	Y
TOWN OF BISHOPVILLE	Y	Y
TOWN OF BLACKSBURG	Y	Y
TOWN OF BLACKVILLE	Y	
TOWN OF BLUFFTON	Y	Y
TOWN OF BLYTHEWOOD	Y	
TOWN OF BONNEAU		Y
TOWN OF BOWMAN	Y	Y
TOWN OF BRANCHVILLE	Y	Y
TOWN OF BRIARCLIFFE ACRES	Y	Y
TOWN OF BRUNSON	Y	
TOWN OF BURNETTOWN	Y	Y
TOWN OF CALHOUN FALLS	Y	Y
TOWN OF CAMERON	Y	Y
TOWN OF CAMPOBELLO	Y	Y
TOWN OF CARLISLE	Y	
TOWN OF CENTRAL	Y	Y
TOWN OF CHAPIN	Y	Y
TOWN OF CHERAW	Y	Y
TOWN OF CHESNEE	Y	Y
TOWN OF CHESTERFIELD	Y	Y
TOWN OF CLIO	Y	Y
TOWN OF CLOVER	Y	Y
TOWN OF CORDOVA	Y	
TOWN OF COTTAGEVILLE	Y	Y
TOWN OF COWARD	Y	Y
TOWN OF COWPENS	Y	Y
TOWN OF DUE WEST	Y	Y
TOWN OF DUNCAN	Y	Y
TOWN OF EASTOVER	Y	
TOWN OF EDGEFIELD	Y	Y
TOWN OF EDISTO BEACH	Y	Y
TOWN OF EHRHARDT	Y	Y
TOWN OF ELGIN	Y	Y
TOWN OF ELKO	Y	
TOWN OF ELLOREE	Y	Y
TOWN OF ESTILL	Y	Y
TOWN OF EUTAWVILLE	Y	Y
TOWN OF FAIRFAX	Y	Y
TOWN OF FORT LAWN	Y	Y
TOWN OF FORT MILL	Y	Y
TOWN OF GASTON	Y	Y
TOWN OF GIFFORD		Y
TOWN OF GILBERT	Y	
TOWN OF GRAY COURT	Y	
TOWN OF GREAT FALLS	Y	Y
TOWN OF GREELEYVILLE	Y	Y
TOWN OF HAMPTON	Y	Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
TOWN OF HARLEYVILLE	Y	Y
TOWN OF HEATH SPRINGS	Y	
TOWN OF HEMINGWAY	Y	Y
TOWN OF HILTON HEAD ISLAND		Y
TOWN OF HOLLY HILL	Y	Y
TOWN OF HOLLYWOOD	Y	
TOWN OF HONEA PATH	Y	Y
TOWN OF IRMO	Y	Y
TOWN OF IVA	Y	Y
TOWN OF JACKSON	Y	Y
TOWN OF JAMES ISLAND	Y	Y
TOWN OF JAMESTOWN	Y	Y
TOWN OF JEFFERSON	Y	
TOWN OF JOHNSTON	Y	Y
TOWN OF JONESVILLE	Y	Y
TOWN OF KERSHAW	Y	Y
TOWN OF KIAWAH ISLAND	Y	Y
TOWN OF KINGSTREE	Y	Y
TOWN OF LAKE VIEW	Y	Y
TOWN OF LAMAR		Y
TOWN OF LANDRUM	Y	Y
TOWN OF LANE	Y	Y
TOWN OF LATTA	Y	Y
TOWN OF LEXINGTON	Y	Y
TOWN OF LINCOLNVILLE	Y	
TOWN OF LITTLE MOUNTAIN	Y	Y
TOWN OF LIVINGSTON	Y	
TOWN OF LYMAN	Y	Y
TOWN OF MAYESVILLE	Y	
TOWN OF MCBEE	Y	
TOWN OF MCCLELLANVILLE	Y	
TOWN OF MCCOLL	Y	Y
TOWN OF MCCORMICK	Y	Y
TOWN OF MEGGETT	Y	
TOWN OF MONCK'S CORNER	Y	Y
TOWN OF MONETTA	Y	
TOWN OF MT PLEASANT	Y	Y
TOWN OF MT. CROGHAN	Y	
TOWN OF NICHOLS	Y	Y
TOWN OF NINETY SIX	Y	Y
TOWN OF NORRIS	Y	
TOWN OF NORTH	Y	Y
TOWN OF NORWAY	Y	Y
TOWN OF OLANTA	Y	Y
TOWN OF OLAR	Y	
TOWN OF PACOLET	Y	Y
TOWN OF PAGELAND	Y	Y
TOWN OF PAMPLICO	Y	Y
TOWN OF PATRICK	Y	

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
TOWN OF PELION	Y	Y
TOWN OF PELZER	Y	
TOWN OF PENDLETON	Y	Y
TOWN OF PERRY	Y	Y
TOWN OF PINE RIDGE	Y	Y
TOWN OF PINWOOD	Y	
TOWN OF POMARIA	Y	
TOWN OF PORT ROYAL	Y	Y
TOWN OF PROSPERITY	Y	Y
TOWN OF QUINBY	Y	Y
TOWN OF RAVENEL	Y	
TOWN OF REEVESVILLE	Y	
TOWN OF RIDGE SPRING	Y	Y
TOWN OF RIDGELAND	Y	Y
TOWN OF RIDGEVILLE	Y	Y
TOWN OF RIDGEWAY	Y	
TOWN OF SALLEY	Y	Y
TOWN OF SALUDA	Y	Y
TOWN OF SANTEE	Y	Y
TOWN OF SCRANTON	Y	Y
TOWN OF SEABROOK ISLAND	Y	
TOWN OF SIX MILE	Y	
TOWN OF SNELLING	Y	
TOWN OF SOCIETY HILL	Y	Y
TOWN OF SOUTH CONGAREE	Y	Y
TOWN OF SPRINGDALE	Y	Y
TOWN OF SPRINGFIELD	Y	Y
TOWN OF ST GEORGE	Y	Y
TOWN OF ST MATTHEWS	Y	Y
TOWN OF ST STEPHEN	Y	Y
TOWN OF SULLIVAN'S ISLAND	Y	Y
TOWN OF SUMMERTON	Y	Y
TOWN OF SUMMERVILLE	Y	Y
TOWN OF SURFSIDE BEACH	Y	Y
TOWN OF SWANSEA	Y	Y
TOWN OF TIMMONSVILLE	Y	Y
TOWN OF TRENTON	Y	Y
TOWN OF TURBEVILLE	Y	Y
TOWN OF VARNVILLE	Y	Y
TOWN OF WAGENER	Y	Y
TOWN OF WARE SHOALS	Y	Y
TOWN OF WELLFORD	Y	Y
TOWN OF WEST PELZER	Y	Y
TOWN OF WEST UNION	Y	Y
TOWN OF WESTMINSTER	Y	Y
TOWN OF WHITMIRE	Y	Y
TOWN OF WILLIAMSTON	Y	Y
TOWN OF WILLISTON	Y	Y
TOWN OF WINNSBORO	Y	Y

<u>Name</u>	<u>SCRS</u>	<u>PORS</u>
TOWN OF YEMASSEE	Y	Y
TRI-COUNTY COMMISSION ON ALCOHOL & DRUG ABUSE	Y	
TRI-COUNTY SOLID WASTE AUTHORITY	Y	
TYGER RIVER FIRE DISTRICT	Y	Y
UNA FIRE DEPARTMENT		Y
UNION COUNTY CARNEGIE LIBRARY	Y	
UNION COUNTY COUNCIL OF AGING	Y	
UNION COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	Y
UNION COUNTY SUPERVISOR	Y	Y
UPPER SAVANNAH COUNCIL OF GOVERNMENTS	Y	
VALLEY PUBLIC SERVICE AUTHORITY	Y	
WACCAMAW ECONOMIC OPPORTUNITY COUNCIL	Y	
WACCAMAW REGIONAL COUNCIL OF GOVERNMENTS	Y	
WACCAMAW REGIONAL TRANSPORTATION AUTHORITY	Y	
WADE HAMPTON FIRE & SEWER DISTRICT	Y	Y
WEST FLORENCE RURAL VOLUNTEER FIRE DISTRICT		Y
WESTVIEW BEHAVIORAL HEALTH SERVICES	Y	
WESTVIEW-FAIRFOREST FIRE DEPARTMENT	Y	Y
WHITESVILLE RURAL VOLUNTEER FIRE DEPARTMENT	Y	Y
WHITMIRE COMMISSION OF PUBLIC WORKS	Y	
WHITNEY AREA FIRE DEPARTMENT		Y
WILLIAMSBURG COUNTY COUNCIL	Y	Y
WILLIAMSBURG COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	
WILLIAMSBURG COUNTY LIBRARY	Y	
WINDY HILL VOLUNTEER FIRE COMPANY		Y
WOODRUFF ROEBUCK WATER DISTRICT	Y	
YORK COUNTY	Y	Y
YORK COUNTY CONVENTION & VISITORS BUREAU	Y	
YORK COUNTY COUNCIL ON AGING	Y	
YORK COUNTY DISABILITIES & SPECIAL NEEDS BOARD	Y	Y
YORK COUNTY LIBRARY	Y	
YORK SOIL & WATER CONSERVATION DISTRICT	Y	

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PEBASM

SC Retirement Systems
and State Health Plan

South Carolina Public Employee Benefit Authority

Serving those who serve South Carolina

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