

Financial Statements
South Carolina Retirement Systems
Year Ended June 30, 2023

Administered by the
South Carolina Public Employee Benefit Authority
Columbia, South Carolina

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October 13, 2023

Members of the South Carolina Public Employee
Benefit Authority
State of South Carolina
Columbia, South Carolina

This report on the audit of the financial statements of the South Carolina Retirement Systems for the fiscal year ended June 30, 2023, was issued by Crowe LLP, Certified Public Accountants, under contract with the South Carolina Office of the State Auditor.

If you have any questions regarding this report, please let us know.

Respectfully submitted,

George L. Kennedy, III, CPA
State Auditor

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INDEPENDENT AUDITOR'S 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 Audit of the Financial Statements***Opinion***

We have audited the financial statements of the South Carolina Retirement Systems (the Systems) as administered by the South Carolina Public Employee Benefit Authority, included as fiduciary funds of the State of South Carolina, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Systems' basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Systems, as of June 30, 2023, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards (Government Auditing Standards)*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Systems and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Systems' ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 Systems' internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Systems' ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.

Report on Summarized Comparative Information

We have previously audited the Systems' 2022 financial statements, and we expressed unmodified opinions on the respective financial statements of the Systems in our report dated October 14, 2022. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2022, 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 basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or

provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

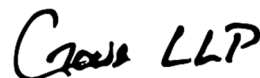
Supplementary Information

Our audit for the year ended June 30, 2023 was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Systems' basic financial statements. The other supplementary information, as listed in the table of contents, for the year ended June 30, 2023 is presented for purposes of additional analysis and is not a required part of the basic 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 basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements for the year ended June 30, 2023 and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole for the year ended June 30, 2023.

We also previously audited, in accordance with auditing standards generally accepted in the United States of America, the basic financial statements of the Systems as of and for the year ended June 30, 2022 (not presented herein) and have issued our report thereon dated October 14, 2022 which contained unmodified opinions on the respective financial statements of the Systems'. The other supplementary information, as listed in the table of contents, for the year ended June 30, 2022 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and related directly to the underlying accounting and other records used to prepare the 2022 basic financial statements. The information was subjected to the audit procedures applied in the audit of the 2022 basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare those basic financial statements or to those basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated in all material respects in relation to the basic financial statements as a whole for the year ended June 30, 2022.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 13, 2023 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.



Crowe LLP

Dallas, Texas
October 13, 2023

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Management's Discussion and Analysis (unaudited)

This section presents management's discussion and analysis of the financial position and performance for the year ended June 30, 2023, 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.

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 annual comprehensive financial report of the state. Financial statements prepared on behalf of the Systems, include the following information, for the fiscal year ended June 30, 2023, with combined total comparative information for the fiscal year ended June 30, 2022:

- 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, 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, increased from \$38.4 billion to \$41.0 billion, which was over six percent from the prior fiscal year ended June 30, 2022. 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. The increase in net position was attributable to both increased contributions and positive investment performance.
- For the fiscal year ended June 30, 2023, investment performance, net of fees, on a time-weighted basis reported by the custodial bank, the Bank of New York Mellon (BNYM), was 6.83 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 investment expenses. This fiscal year's performance was above the prior year's return of negative 0.97 percent. Since the actuarial assumed rate of return is 7 percent, the plan experienced an actuarial loss this fiscal year. 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 when there is a change in contribution rates.

- 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, 2023. 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, 2022. The total pension liability for each plan was rolled-forward from the valuation date to the plans' fiscal year ending June 30, 2023, 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 almost 48 percent from fiscal year 2022. The net change in this line item was primarily due to the increase from \$1.62 billion to \$2.71 billion in the dollar amount of cash and cash equivalents at June 30, 2023. Cash and Cash Equivalents increased due to the timing of redemptions and investment proceeds at fiscal year-end. Even with the increases, balances are still within allowable ranges.
- The Statement of Changes in Fiduciary Net Position reports slight 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 2023, employee contribution 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 17.56 percent and 20.24 percent, respectively. These employer rates are inclusive of contributions for the incidental and accidental death benefit plans, which are only applicable to employers participating in that benefit. Effective July 1, 2023, there is no change to employee rates but employer contribution rates increase by 1 percentage point for both SCRS and PORS to 18.56 percent and 21.24 percent, respectively. This represents the final statutorily scheduled increase; however, in accordance with the legislative funding schedule, employer contribution rates 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 the budget for the State of South Carolina, the General Assembly appropriated funds to PEBA for the SCRS Trust Fund and the PORS Trust Fund, to be distributed to some employers to help offset a portion of the employer's retirement contributions. Each employer's credit is the same dollar amount as the prior fiscal year. In no event shall a participating employer receive a credit that exceeds the employer contributions due from the employer for the fiscal year. This represents the sixth year in which PEBA issued credit invoices to certain SCRS and PORS employers who then applied the credit invoices towards contributions otherwise due to the Systems. The amount of credit invoices issued in fiscal year 2023 totaled \$88.7 million and \$12.5 million for SCRS and PORS respectively. The General Assembly also continues to fund \$2.9 million in nonemployer contributions to JSRS.
- Annuity benefits paid from the five defined benefit plans, increased over 3 percent from the prior fiscal year. The change resulted in part 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, 2022. In addition, the number of annuitants increased slightly as well as the average monthly benefit of those annuitants.
- 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 \$656 thousand, a decrease from \$1.5 million in the prior year. As reported by BNYM, at June 30, 2023, the fair value of securities on loan was \$44.96 million, the fair value of the invested cash collateral was \$1.73 million, and the securities lending obligations were \$46.32 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.
- 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 is responsible for overseeing the collecting, validating, and aggregating of non-invoiced netted fee and expense information by their consultant and, on an annual basis, reports the information to PEBA 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 2023 were \$462.1 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. Comparatively, total investment manager fees were more than 33 percent lower than the prior fiscal year 2022 total of \$696.3 million. Although performance for the total Plan was positive for fiscal year 2023, asset classes that incur performance fees generally had negative returns which reduced performance fees driving total fees lower as compared to the previous fiscal year.
- PEBA is the governing body responsible for administration of both the state's retirement plans and employee insurance programs. Administrative costs are proportionately allocated for retirement operations and funded from the retirement trust funds. Amounts are reflected as administrative expenses on the Statement of Changes in Fiduciary Net Position. Administrative and other

expenses are lower because the prior fiscal year included one-time PEBA:Connect implementation and planning charges.

- PEBA retains Gabriel, Roeder, Smith & Company (GRS) as the 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 annual valuation reports were issued in December 2022 reflecting the valuation of the Systems as of July 1, 2022. The most recent actuarial experience study was completed by GRS for the five-year period ending June 30, 2019. The experience study recommended various changes to the actuarial assumptions and methodologies. The General Assembly permitted the investment return assumption to decrease from 7.25 percent to 7 percent, as provided by Section 9-16-335 of the South Carolina Code of Laws. This change, as well as the other recommended changes adopted by the PEBA Board, were implemented beginning with the July 1, 2021 actuarial 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 SCRS, PORS and JSRS members who return to work for a covered employer after retirement, the employer must pay the corresponding employer contribution for that particular plan, and those working retired members are also required to pay the same employee contribution as an active member in the same position. As of June 30, 2022, the actuarial valuations for SCRS and PORS collectively reported that approximately 13,000 retired members were working for a covered employer, thereby making up almost five 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 retire after January 1, 2013, and who have 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 unless they meet an allowable exemption. Additionally, all retired members must experience a bona-fide separation of employment and 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 limitation 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 increase as necessary to fund the plan.

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, the General Assembly provided funds to PEBA through legislative appropriations that are classified as nonemployer 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	2023	2022	Increase / (Decrease)	% Increase / (Decrease)
Cash and cash equivalents, receivables, and prepaid expenses	\$ 3,369,548	\$ 2,277,245	\$ 1,092,303	47.97%
Investments, at fair value	38,695,989	36,907,526	1,788,463	4.85%
Securities lending cash collateral invested	1,725	9,336	(7,611)	(81.52)%
Capital assets, net of accumulated depreciation	1,794	1,907	(113)	(5.93)%
Total assets	42,069,056	39,196,014	2,873,042	7.33%
Liabilities				
Obligations under securities lending	1,725	9,336	(7,611)	(81.52)%
Other liabilities	1,064,311	746,626	317,685	42.55%
Total liabilities	1,066,036	755,962	310,074	41.02%
Net Position Restricted for Pensions	\$ 41,003,020	\$ 38,440,052	\$ 2,562,968	6.67%

Changes in Fiduciary Net Position

Years Ended June 30

(Amounts expressed in thousands)

Additions	2023	2022	Increase / (Decrease)	% Increase / (Decrease)
Employee contributions	\$ 1,219,382	\$ 1,150,248	\$ 69,134	6.01%
Employer contributions	2,502,476	2,202,429	300,047	13.62%
Nonemployer contributions	104,076	104,076	-	0.00%
State appropriated contributions	5,290	5,290	-	0.00%
Net investment income (loss)	2,771,272	(995,127)	3,766,399	378.48%
Other income	2,634	3,436	(802)	(23.34)%
Total additions	6,605,130	2,470,352	4,134,778	167.38%
Deductions				
Annuity benefits	3,818,645	3,676,477	142,168	3.87%
Refunds	171,196	193,258	(22,062)	(11.42)%
Death benefits	29,363	34,066	(4,703)	(13.81)%
Administrative and other expenses	22,958	24,599	(1,641)	(6.67)%
Total deductions	4,042,162	3,928,400	113,762	2.90%
Net increase (decrease) in Net Position	2,562,968	(1,458,048)	4,021,016	275.78%
Net Position Restricted for Pensions				
Beginning of year	38,440,052	39,898,100	(1,458,048)	(3.65)%
End of year	\$ 41,003,020	\$ 38,440,052	\$ 2,562,968	6.67%

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

On a combined basis, the defined benefit plans' fiduciary net position was \$41.0 billion at June 30, 2023. This represents an increase of over six percent from the previous fiscal year-end. As explained in the financial highlights section, the fiduciary net position increased due to both increased contributions and positive performance of the plan investments. The plan's net position increased from \$38.4 billion in the prior fiscal year.

During fiscal year 2023, the total dollar amount of contributions added to the plans increased because of higher employer contribution rates and payroll growth while the nonemployer funding remained the same. 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 an increase in the number of annuitants as well as an increase related to 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, 2022.

For investment performance calculation purposes, the books are closed 12 business days after month end, capturing the corresponding valuations reported by investment managers to that point. However, for investment valuation purposes, and specifically in order to ensure financial statements include the most complete values of private market investments, the books are held open longer at fiscal year-end which allows more time for valuations to be received from investment managers with lagged reporting. Because of the timing difference between accounting and performance, the investment performance of some reported valuations included in the reported plan's net position are not included in plan performance for the current fiscal year. Accordingly, the performance of those particular assets will be included in the calculation of following fiscal year's plan performance.

Net of fee performance return, on a time-weighted basis was 6.83 percent for the fiscal year. The Plan outperformed the policy benchmark, which returned 5.49 percent, by 134 basis points. Additionally, the Plan fell short of the actuarial assumed rate of return of 7 percent by 17 basis points.

The Public Equity asset class was the best performing asset class returning 16.59 percent and outperformed the asset class benchmark which returned 16.14 percent. Private Debt was the only other positive returning asset class with a 5.66 percent return, outperforming its benchmark by 162 basis points. The Portable Alpha Hedge Funds was the next best performing asset class but fell short of exceeding the three-month LIBOR returned by 4 basis points. The Private Equity asset class returned negative 0.93 percent but outperformed the asset class benchmark by 433 basis points. The Real Assets asset class, which contains both private and public Real Estate and Infrastructure investments, returned negative 1.26 percent but strongly outperformed the asset class benchmark which returned negative 10.73 percent. The Bonds asset class, which includes cash and short duration investments, returned a negative 1.57 percent versus the asset class benchmark that returned a negative 0.94 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 from 30 years to 20 years over a ten-year schedule. Over time

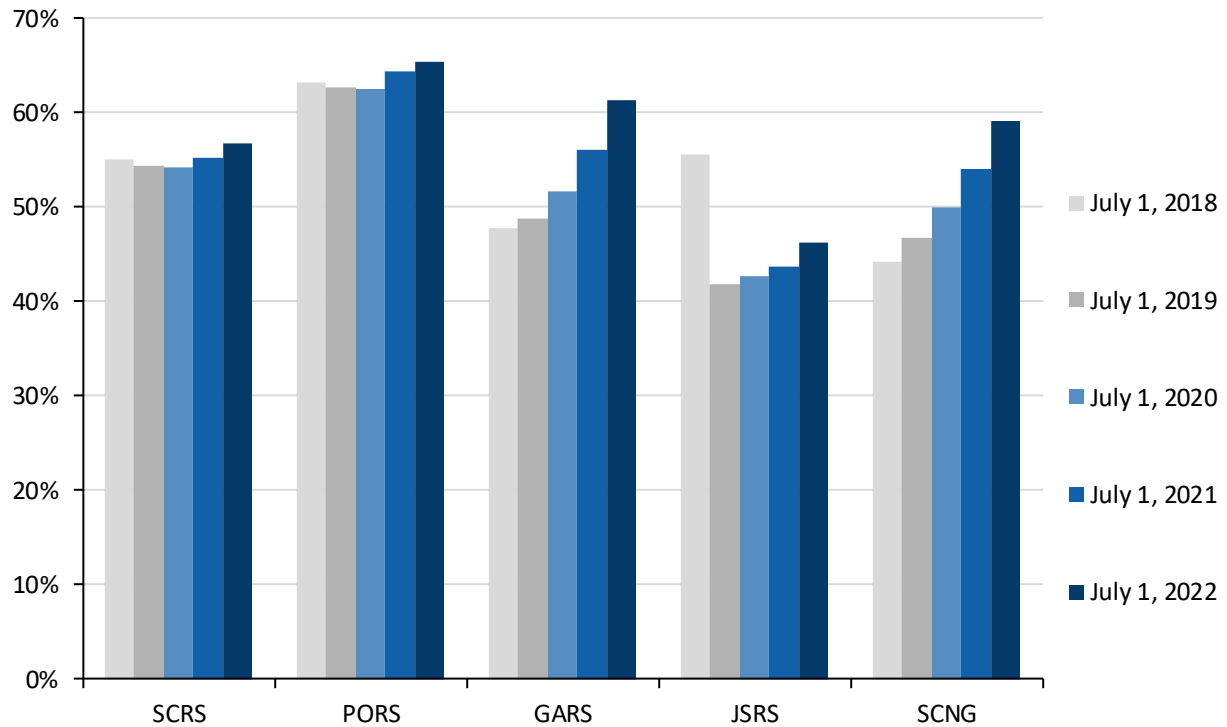
and provided investment performance meets long-term assumptions and there are no future benefit enhancements, the funded ratio of each system is expected to improve significantly.

For purposes of developing the actuarially determined contribution rate, the most recently completed valuations prepared as of July 1, 2022, 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, 2022, showed a slight increase in funded status for SCRS, PORS and JSRS while the funded ratios for GARS and SCNG showed larger improvements. 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 South Carolina 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 on page 66.

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, 2023

With summarized comparative totals for June 30, 2022

(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTAL	2022 TOTAL
Assets							
Cash and cash equivalents	\$ 2,245,797	\$ 434,034	\$ 5,674	\$ 19,559	\$ 9,161	\$ 2,714,225	\$ 1,632,350
Receivables							
Due from other systems		307				307	1,130
Employee and employer contributions	348,225	45,162	5	1,194	4	394,590	341,101
Accrued investment income	27,000	5,090	46	198	57	32,391	22,393
Unsettled investment sales	189,858	35,419	238	1,199	202	226,916	279,787
Other investment receivables	445	83	1	3		532	
Total receivables	565,528	86,061	290	2,594	263	654,736	644,411
Investments, at fair value							
Short-term securities	120,151	22,415	150	760	127	143,603	74,608
Fixed Income	1,574,960	293,815	1,975	9,952	1,673	1,882,375	2,159,403
Global Public Equity	14,841,207	2,768,688	18,614	93,779	15,760	17,738,048	15,211,080
Alternatives	15,840,140	2,955,043	19,866	100,092	16,822	18,931,963	19,462,435
Total investments	32,376,458	6,039,961	40,605	204,583	34,382	38,695,989	36,907,526
Securities lending cash collateral invested	1,443	269	2	9	2	1,725	9,336
Prepaid expenses	492	90	1	3	1	587	484
Capital assets, net of accumulated depreciation	1,613	169	5	7		1,794	1,907
Total assets	35,191,331	6,560,584	46,577	226,755	43,809	42,069,056	39,196,014
Liabilities							
Due to other systems		307				307	1,130
Accounts payable - unsettled investment purchases	761,616	142,083	955	4,812	809	910,275	584,238
Investment fees payable	2,535	473	3	16	3	3,030	3,172
Obligations under securities lending	1,443	269	2	9	2	1,725	9,336
Due to South Carolina Retiree Health Insurance Trust Fund	84,030	1,648				85,678	89,502
Benefits payable	7,266	539			4	7,809	5,808
Other liabilities	47,172	9,647	57	288	48	57,212	62,776
Total liabilities	904,369	154,659	1,017	5,125	866	1,066,036	755,962
Net Position Restricted for Pensions	<u>\$ 34,286,962</u>	<u>\$ 6,405,925</u>	<u>\$ 45,560</u>	<u>\$ 221,630</u>	<u>\$ 42,943</u>	<u>\$ 41,003,020</u>	<u>\$ 38,440,052</u>

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, 2023

With summarized comparative totals for the year ended June 30, 2022

(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTAL	2022 TOTAL
Additions							
Contributions							
Employee	\$ 1,035,919	\$ 179,072	\$ 155	\$ 4,236	\$ -	\$ 1,219,382	\$ 1,150,248
Employer	2,133,553	342,451	6,308	20,164		2,502,476	2,202,429
Nonemployer	88,706	12,470		2,900		104,076	104,076
State appropriated					5,290	5,290	5,290
Total contributions	<u>3,258,178</u>	<u>533,993</u>	<u>6,463</u>	<u>27,300</u>	<u>5,290</u>	<u>3,831,224</u>	<u>3,462,043</u>
Investment income							
Net appreciation (depreciation) in fair value of investments	2,250,377	420,199	2,825	14,233	2,392	2,690,026	(795,004)
Interest and dividend income	465,044	86,812	779	3,552	806	556,993	504,718
Investment expense	(398,686)	(74,279)	(498)	(2,517)	(423)	(476,403)	(706,343)
Net income (loss) from investing activities	<u>2,316,735</u>	<u>432,732</u>	<u>3,106</u>	<u>15,268</u>	<u>2,775</u>	<u>2,770,616</u>	<u>(996,629)</u>
From securities lending activities:							
Securities lending income	727	135	1	5	1	869	828
Securities lending borrower rebates	(178)	(33)	(1)	(1)		(213)	674
Net income from securities lending activities	<u>549</u>	<u>102</u>	<u>-</u>	<u>4</u>	<u>1</u>	<u>656</u>	<u>1,502</u>
Total net investment income (loss)	<u>2,317,284</u>	<u>432,834</u>	<u>3,106</u>	<u>15,272</u>	<u>2,776</u>	<u>2,771,272</u>	<u>(995,127)</u>
Supplemental retirement benefits funded by the State	182	6				188	243
Transfers of contributions from other Systems	135	2,120		191		2,446	3,193
Total additions	<u>5,575,779</u>	<u>968,953</u>	<u>9,569</u>	<u>42,763</u>	<u>8,066</u>	<u>6,605,130</u>	<u>2,470,352</u>
Deductions							
Refunds of contributions to members	145,376	25,820				171,196	193,258
Transfers of contributions to other Systems	2,270	41	135			2,446	3,193
Regular retirement benefits	3,309,645	468,123	6,313	27,344	4,669	3,816,094	3,674,219
Deferred retirement benefits				342		342	
Supplemental retirement benefits	182	6				188	243
Death benefits	26,765	2,572	15	11		29,363	34,066
Accidental death benefits		2,021				2,021	2,015
Depreciation	168	22		1		191	177
Administrative expenses	17,038	3,131	22	109	21	20,321	21,229
Total deductions	<u>3,501,444</u>	<u>501,736</u>	<u>6,485</u>	<u>27,807</u>	<u>4,690</u>	<u>4,042,162</u>	<u>3,928,400</u>
Net increase (decrease) in Net Position	2,074,335	467,217	3,084	14,956	3,376	2,562,968	(1,458,048)
Net Position Restricted for Pensions							
Beginning of year	32,212,627	5,938,708	42,476	206,674	39,567	38,440,052	39,898,100
End of year	<u>\$ 34,286,962</u>	<u>\$ 6,405,925</u>	<u>\$ 45,560</u>	<u>\$ 221,630</u>	<u>\$ 42,943</u>	<u>\$ 41,003,020</u>	<u>\$ 38,440,052</u>

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 *Annual Comprehensive 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 its 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, 2022.

	State	School	Other	Total
SCRS				
Number of Employers ¹	34	115	579	728
Annualized Prior Year Compensation for Active Members	\$3,004,436	\$4,258,994	\$2,701,072	\$9,964,502
Average Number of:				
Active Contributing Members	56,087	89,722	55,180	200,989
Retirees and beneficiaries currently receiving benefits ²				150,856
Terminated members entitled to but not yet receiving benefits ²				216,511
Total SCRS Membership				568,356
PORS				
Number of Employers ¹	22	4	289	315
Annualized Prior Year Compensation for Active Members	\$404,751		\$1,029,113	\$1,433,864
Average Number of:				
Active Contributing Members	7,961		18,645	26,606
Retirees and beneficiaries currently receiving benefits ²				20,840
Terminated members entitled to but not yet receiving benefits ²				21,195
Total PORS Membership				68,641
GARS				
Number of Employers	1			1
Annualized Prior Year Compensation for Active Members	\$1,204			\$1,204
Average Number of:				
Active Members	72			72
Retirees and beneficiaries currently receiving benefits	337			337
Terminated members entitled to but not yet receiving benefits	29			29
Total GARS Membership	438			438
JSRS				
Number of Employers	1			1
Annualized Prior Year Compensation for Active Members	\$32,037			\$32,037
Average Number of:				
Active Members (160 positions)	160			160
Retirees and beneficiaries currently receiving benefits ³	224			224
Terminated members entitled to but not yet receiving benefits	6			6
Total JSRS Membership	390			390
SCNG				
Number of Employers	1			1
Annualized Prior Year Compensation for Active Members ⁴	N/A			N/A
Average Number of:				
Active Members	12,047			12,047
Retirees and beneficiaries currently receiving benefits	5,097			5,097
Terminated members entitled to but not yet receiving benefits	1,511			1,511
Total SCNG Membership	18,655			18,655

¹ Although there are 87 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 15 retired-in-place members as of July 1, 2022

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 (12.41 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, 2023

(Dollar amounts expressed in thousands)

Active Contributing Participants	35,238
Compensation of Participants	\$2,014,276
Employer Contributions Retained by SCRS	\$249,986
Death Benefit Contributions Retained by SCRS	\$3,015
Employee Contributions to Investment Providers	\$181,285
Employer Contributions to Investment Providers	\$100,714

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 Two 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 Three 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 Two and Class Three 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 Two 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 Three 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 Two and Class Three 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, 2022, 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.

State law requires the Commission to adopt a Statement of Investment Objectives and Policies ("SIOP") and to review it annually and to either amend it or reaffirm it. The SIOP establishes investment and performance objectives, policies and guidelines, roles, responsibilities, and delegation of authority for the management of plan assets. State law also requires RSIC's Chief Investment Officer ("CIO") to develop an Annual Investment Plan ("AIP") which must be presented to and adopted by the Commission prior to May 1st of each year. Pursuant to state law, relevant portions of the SIOP may constitute parts of the AIP.

In order to ensure consistency and agreement between the SIOP and AIP, the Commission has consolidated the requirements of both into one document which it will review annually prior to May 1st. As part of the annual review, the Commission will amend or reaffirm, as it deems appropriate, those portions of this document intended to meet the requirements of the SIOP and the Commission will consider the CIO's recommendation of any necessary changes to those portions of this document intended to meet the requirements of the AIP.

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 SIOP/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 or seek Commission approval to remain outside the range. At June 30, 2023, the Private Equity weight was 13.6% exceeding the maximum threshold of 13%, and the cumulative weight of Private Equity, Private Debt, and Private Real Assets was 34% and exceeded the maximum threshold of 30%. The Commission approved remaining outside these ranges.

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, 2022.

Asset Class	Target	Range	
Public Equity¹	46%	30%	60%
Domestic	Index ²	Index +/- 6%	
Developed Non-US	Index	Index +/- 6%	
Emerging Market	Index	Index +/- 4%	
Equity Options	0%	0%	7%
Bonds¹	26%	15%	35%
Core Bonds (IG ³)	26%	10%	35%
Inflation-linked (IG)	0%	0%	5%
Mixed Credit (non-IG)	0%	0%	8%
Emerging Market			
Debt	0%	0%	6%
Net Cash/Short			
Duration	0%	0%	7%
Private Equity^{1,4}	9%	5%	13%
Private Debt^{1,4}	7%	3%	11%
Real Assets^{1,4}	12%	6%	18%
Real Estate	9%	5%	13%
Infrastructure	3%	0%	5%
Portable Alpha Hedge			
Funds ⁵	0%	0%	15%

¹ Component of Policy Benchmark.

² Component weight of MSCI ACWI Index.

³ "IG" denotes "Investment Grade".

⁴ RSIC staff and consultant will notify the Commission if the collective exposure to Private Equity, Private Debt and Private Real Assets exceeds 30 percent of total plan assets.

⁵ Portable Alpha Hedge Funds are expressed as gross exposure but, as collateral supporting the Overlay program, net to zero when calculating total plan fair value. Hedge funds may not exceed 15 percent of total plan assets.

At June 30, 2023, 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, 2023, the annual money weighted rate of return on plan investments was 6.80 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, 2023, there were 245 legal agreements in place with 93 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 fair 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, 2023. 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, validation, and aggregation by RSIC's consultant and reasonableness testing and review by RSIC, the Retirement Division of PEBA is provided 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. Management Fees are reported net of offsets and rebates, which has the effect of reducing the total fees reported, because it is a truer representation of the overall cost of the investment. Offsets can include things such as Board of Director fees, Broken Deal fees, and Monitoring fees. 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 meet the statutory funding period for amortization 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 will continue to increase annually by 1 percent in accordance with state statute. State statute sets the ultimate scheduled employer rate at 18.56 percent for SCRS and 21.24 percent for PORS and beginning July 1, 2017 scheduled the amortization periods to be reduced from 30 years to 20 years over a ten-year schedule.

Following are the employee and employer contribution rates applicable for fiscal year 2023 (amounts expressed in thousands):

System	Employee Rate	Employer Rate
SCRS	9%	17.56% ¹
PORS	9.75%	20.24% ²
GARS	11%	\$6,308 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 \$3,984 however, the contributions provided by state appropriations were \$5,290.

The General Assembly included funding to PEBA, to be distributed to some employers to help offset a portion of the employer's retirement contributions. PEBA allocates amounts to employers in the same dollar amount for which credits were calculated in previous years. In no event shall a participating employer receive a credit that exceeds the employer contributions due from the employer for the fiscal year. PEBA issued credit invoices to certain SCRS and PORS employers who then applied the credit invoices towards contributions otherwise due to the Systems. The amount of credit invoices issued in fiscal year 2023 totaled \$88.7 million and \$12.5 million for SCRS and PORS respectively. The General Assembly also continues to fund \$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 2023 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	\$499,322
State ORP	124,366
PORS	31,505
Total	\$655,193

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, 2023, were as follows (amounts expressed in thousands):

	SCRS	PORS	GARS	JSRS	SCNG	Total
Employee Fund	\$ 11,155,045	\$ 1,499,886	\$ 5,608	\$ 35,417	\$ -	\$ 12,695,956
Employer Fund	23,002,595	4,744,493	39,952	186,213	42,943	28,016,196
Death Benefit Fund	129,322	67,104				196,426
Accidental Death Fund		94,442				94,442
QEBA Fund						
Totals	<u>\$ 34,286,962</u>	<u>\$ 6,405,925</u>	<u>\$ 45,560</u>	<u>\$ 221,630</u>	<u>\$ 42,943</u>	<u>\$ 41,003,020</u>

III. Deposits and Investments

Deposit and Investment Risk Disclosures

The tables presented on pages 36-39 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, 2023, were as follows (amounts expressed in thousands):

	<u>Carrying Amount</u>
SCRS	\$62,741
PORS	10,700
GARS	126
JSRS	156
SCNG	112
Total	<u>\$73,835</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, 2023, actual bank balances totaled \$36.1 million. Amounts in excess of \$250,000 were uninsured and uncollateralized.

As of June 30, 2023, cash held by the custodian, in broker and strategic partnerships accounts as well as forward contracts and foreign currencies totaled \$72.1 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, 2023

(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)	\$ 2,545,169	U.S. Government	
Repurchase Agreements	7,400	U.S. Government Treasuries ¹	\$ 61,322
Commercial Paper	36,787	U.S. Government Agencies	155,848
Certificates of Deposit	17,963	Mortgage Backed	
U. S. Treasury Bills	104,585	Government National Mortgage Association	14,322
Total Short Term Investments	\$ 2,711,904	Federal National Mortgage Association	55,194
		Federal Home Loan Mortgage Association (Multiclass)	1,319
		Collateralized Mortgage Obligations	822
Equity Allocation		Municipals	9,948
Global Public Equity		Corporate	
Common Stocks	\$ 17,298,299	Corporate Bonds	512,271
Real Estate Investment Trusts	390,746	Convertible Bonds	1,433
Preferred	6,496	Asset Backed Securities	219,207
Swaps - Equity	42,507	Private Placements	823,096
Total Global Public Equity	\$ 17,738,048	Investment Grade Bonds	42,305
		Emerging Debt	27,856
Alternatives		Options - Fixed Income	(1,422)
Hedge Funds	\$ 5,016,591	Futures - Fixed Income	(44,778)
Private Equity	5,569,486	Swaps - Fixed Income	3,632
Private Debt	3,735,063	Total Fixed Income	\$ 1,882,375
Private Real Estate	3,397,721		
Private Infrastructure	1,213,102		
Total Alternative Investments	\$ 18,931,963		
		Total Invested Assets	\$ 41,264,290
		Invested Securities Lending Collateral	\$ 1,725

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

Total Invested Assets	\$ 41,264,290
Short Term Investments classified as Cash & Cash Equivalents on Statement of Fiduciary Net Position	
Short Term Investment Funds (U.S. Regulated)	(2,545,169)
Repurchase Agreements	(7,400)
Commercial Paper	(15,732)
Total Investments on Statement of Fiduciary Net Position	\$ 38,695,989

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

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, 2023 (amounts in thousands):

Investments by Fair Value Level	At 6/30/2023	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)	\$ 2,545,169	\$ 2,545,169	\$ -	\$ -
Repurchase Agreements	7,400		7,400	
Commercial Paper	36,787		36,787	
Certificates of Deposit	17,963		17,963	
U. S. Treasury Bills	104,585	104,585		
Total Short Term Investments	\$ 2,711,904	\$ 2,649,754	\$ 62,150	\$ -
Equity Allocation				
Global Public Equity				
Common Stocks	\$ 1,129,909	\$ 1,129,909	\$ -	\$ -
Real Estate Investment Trusts	390,746	390,746		
Preferred	6,496	2,196	4,300	
Total Global Public Equity	\$ 1,527,151	\$ 1,522,851	\$ 4,300	\$ -
Fixed Income Allocation				
U. S. Government				
U.S. Government Treasuries	\$ 61,322	\$ 61,322	\$ -	\$ -
U.S. Government Agencies	155,848		155,848	
Mortgage Backed				
Government National Mortgage Association	14,322		14,322	
Federal National Mortgage Association	55,194		55,194	
Federal Home Loan Mortgage Association (Multiclass)	1,319		1,319	
Collateralized Mortgage Obligations	822		822	
Municipals				
	9,948		9,948	
Corporate				
Corporate Bonds	512,271	3,050	328,526	180,695
Convertible Bonds	1,433		1,433	
Asset Backed Securities	219,207		219,207	
Private Placements	823,096		823,096	
Total Fixed Income	\$ 1,854,782	\$ 64,372	\$ 1,609,715	\$ 180,695
Total Investments by Fair Value Level	\$ 6,093,837	\$ 4,236,977	\$ 1,676,165	\$ 180,695
Investments measured at the net asset value (NAV)				
Global Equity Common Stocks	\$ 16,168,390			
Investment Grade Bonds	42,305			
Emerging Debt	27,856			
Hedge Funds	5,016,591			
Private Equity	5,569,486			
Private Debt	3,735,063			
Private Real Estate	3,397,721			
Private Infrastructure	1,213,102			
Total investments measured at the NAV	\$ 35,170,514			
Total investments measured at fair value	\$ 41,264,351			
Investment derivative instruments				
Equity Investments				
Swaps - Equity	\$ 42,507	\$ -	\$ 42,507	\$ -
Fixed Income Investments				
Options - Fixed Income	(1,422)		(1,422)	
Futures - Fixed Income	(44,778)	(44,778)		
Swaps - Fixed Income	3,632		3,632	
Total investment derivative instruments	\$ (61)	\$ (44,778)	\$ 44,717	\$ -
Total Invested Assets	\$ 41,264,290			

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

	Fair Value at 6/30/23	Unfunded Commitments ¹	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Global Equity Common Stocks	\$ 16,168,390	\$ -	Daily/Monthly	5 - 30 days
Investment Grade Bonds	42,305		1 year	1 day
Emerging Debt	27,856		Daily/Monthly	10 - 15 days
Hedge Funds	5,016,591		Monthly/Quarterly	2 - 90 days
Private Equity	5,569,486	2,508,098	Illiquid	Illiquid
Private Debt	3,735,063	2,323,065	Illiquid	Illiquid
Private Real Estate	3,397,721	947,664	Illiquid	Illiquid
Private Infrastructure	1,213,102	299,761	Illiquid	Illiquid
Total investments measured at the NAV	\$ 35,170,514	\$ 6,078,588		

¹ For purposes of this table, amounts are reported in US Dollars. The Private Equity Category includes £50,377, €189,391 and AUD \$38,748 that have been converted to USD.

Global Equity Funds. This investment type includes 7 passive index funds that invest primarily in global developed and emerging equity public markets instruments. The fair values of the investments in this asset type have been determined using NAV per share of the fund and reported by the Investment Managers. Redemptions are generally allowed monthly, provided adequate notice.

Emerging Debt Funds. This investment type includes two 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 fund 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.

Investment Grade Bond Funds. This investment type includes one fund that generally invests in mortgage-related securities. The fair value of the investment in this asset type has been determined using NAV per share of the fund or percent ownership of the NAV of the fund and reported by the Investment Manager. A redemption can be initiated at any time and assets are self-liquidating within 1 year. There is no redemption fee charged.

Hedge Funds. This investment type includes 29 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 24 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 133 funds that consist of 63 investments in limited partnerships, 40 investments in co-investment funds, 17 investments on manager co-investment platforms, and 13 funds within strategic partnership investments. Strategic partnerships may consist of underlying investments in more than one limited partnership or co-investment fund. Manager co-investment platforms consist of underlying investments in more than one co-investment fund. The private equity investments span the venture capital, growth equity, 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 54 funds that consist of 38 investments in limited partnerships, 14 funds within strategic partnership investments, and two co-investment funds. 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, and opportunistic 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 33 funds that consist of 27 investments in limited partnerships, two investments in co-investment funds, 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, 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 15 funds that consist of 9 investments in limited partnerships, and 6 investments in co-investment funds. Common types of infrastructure investments are in transportation, energy, telecommunications, and utilities. 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.

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, 2023, 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)	\$ 2,545,169	\$ -	\$ 2,545,169	0.08
Repurchase Agreements	7,400		7,400	0.01
Invested Securities Lending Collateral	1,725		1,725	0.01
Commercial Paper	36,787		36,787	0.29
Certificates of Deposit	17,963		17,963	0.32
U. S. Treasury Bills	104,585		104,585	0.43
Total Short Term Investments	\$ 2,713,629	\$ -	\$ 2,713,629	
Global Public Equity				
Preferred	6,496	1	6,495	10.78
Total Equity Investments	\$ 6,496	\$ 1	\$ 6,495	
Fixed Income Allocation				
U. S. Government				
U.S. Government Treasuries	61,322		61,322	11.20
U. S. Government Agencies	155,848		155,848	3.52
Mortgage Backed				
Government National Mortgage Association	14,322	3,344	10,978	4.57
Federal National Mortgage Association	55,194		55,194	5.06
Federal Home Loan Mortgage Association (Multiclass)	1,319		1,319	1.92
Collateralized Mortgage Obligations	822		822	1.97
Municipals	9,948		9,948	3.79
Corporate				
Corporate Bonds	512,271	247,367	264,904	2.78
Convertible Bonds	1,433		1,433	2.70
Asset Backed Securities	219,207	22,841	196,366	0.24
Private Placements	823,096	106,425	716,671	1.76
Investment Grade Bonds	42,305		42,305	5.75
Emerging Debt	27,856		27,856	5.46
Options - Fixed Income	(1,422)	97	(1,519)	62.29
Futures - Fixed Income	(44,778)		(44,778)	1.31
Swaps - Fixed Income	3,632	(431)	4,063	19.12
Total Fixed Income	\$ 1,882,375	\$ 379,643	\$ 1,502,732	
Mixed Credit Hedge Fund Allocation				
Mixed Credit Hedge Funds	7,950		7,950	0.01
Total Mixed Credit Hedge Funds	\$ 7,950	\$ -	\$ 7,950	
Total Invested Assets	\$ 4,610,450	\$ 379,644	\$ 4,230,806	
Total Portfolio Effective Duration (option adjusted duration)				1.02

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, 2023, 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 Investments²						
Short Term Investment Funds (U. S. Regulated)	\$ 2,545,169	\$ -	\$ -	\$ -	\$ -	\$ -
Repurchase Agreements						
Invested Securities Lending Collateral						
Commercial Paper		23,581		13,206		
Certificates of Deposit		11,415	2,588			
Global Public Equity						
Preferred				4,005	1,676	
Fixed Income Allocation²						
Mortgage Backed						
Federal National Mortgage Association	55,194					
Federal Home Loan Mortgage Association (Multiclass)	1,319					
Collateralized Mortgage Obligations	822					
Municipals	1,018	5,536	184			
Corporate						
Corporate Bonds	11,273	3,454	49,330	67,455	34,594	34,316
Convertible Bonds						
Asset Backed Securities	11,946	22,244	27,531	68,460	22,466	1,847
Private Placements	44,410	50,330	71,365	74,521	86,632	58,838
Investment Grade Bonds						
Emerging Debt						
Options - Fixed Income						
Futures - Fixed Income						
Swaps - Fixed Income						
Totals	\$ 2,671,151	\$ 116,560	\$ 150,998	\$ 227,647	\$ 145,368	\$ 95,001

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 \$336.1 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	
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,545,169
					7,400	7,400
					1,725	1,725
						36,787
					3,960	17,963
					815	6,496
						55,194
						1,319
						822
				1,527	1,683	9,948
11,762	2,077	794		28,200	269,016	512,271
					1,433	1,433
4,148	18,225	1,328		35,962	5,050	219,207
12,926	2,313	57		195,857	225,847	823,096
			42,305			42,305
			27,856			27,856
					(1,422)	(1,422)
					(44,778)	(44,778)
					3,632	3,632
\$ 28,836	\$ 22,615	\$ 2,179	\$ 70,161	\$ 261,546	\$ 474,361	\$ 4,266,423

Concentration of Credit Risk – Investments

Concentration of credit risk is the risk of loss attributed to the magnitude of investment in a single issuer. Concentration of credit risk shall not apply to the obligations of the U.S. Government and Federal Agencies. Concentration limits are outlined in the investment guidelines of each individual portfolio within domestic fixed income and monitored by the investment managers. RSIC receives annual attestation of credit risk concentration levels from those managers. As of June 30, 2023, 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, 2023, (amounts expressed in thousands):

Currency	Cash & Cash Equivalents	Forward Contracts	Futures Contracts	Private Equity	Private Debt	Private Infrastructure	Fixed Income	Equity	Total
Australian Dollar	\$ (515)	\$ (24,964)	\$ -	\$ 5,734	\$ -	\$ 27,254	\$ 1,154	\$ 6,436	\$ 15,099
Canadian Dollar	157	(2,337)					1,824	21,033	20,677
Chinese Yuan Renminbi		(26)							(26)
Danish Krone	31							2,277	2,308
Euro Currency	1,611	(222,245)	53	172,994	9,672	145,212	204,531	27,669	339,497
Hong Kong Dollar	8	(41)						7,081	7,048
Indian Rupee		1,957							1,957
Indonesian Rupiah		68							68
Israeli Shekel		33							33
Japanese Yen	(356)	833					1,281	2,075	3,833
Mexican Peso	322								322
New Taiwan Dollar		(4)							(4)
New Zealand Dollar	10								10
Norwegian Krone	9								9
Peruvian Sol		(17)							(17)
Pound Sterling	(213)	(64,553)		58,155	9,811		19,490	12,242	34,932
Singapore Dollar		(1,162)						2,168	1,006
South African Rand	1								1
Swedish Krona	4								4
Swiss Franc	12								12
Totals	\$ 1,081	\$(312,458)	\$ 53	\$ 236,883	\$ 19,483	\$ 172,466	\$ 228,280	\$ 80,981	\$ 426,769

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 \$58.5 and \$114.1 million, respectively, were held in trust by the clearing brokers on June 30, 2023. The Systems' derivatives, consisting of futures, options, forward contracts and swaps are presented in the tables on pages 40-45. 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, 2023, (amounts expressed in thousands):

	<u>Changes in Fair Value</u>			
	<u>Classification</u>	<u>Gain/Loss</u>		
Futures Contracts	Net depreciation	\$ (20,133)		
Forward Contracts	Net depreciation	(10,024)		
Swaps	Net appreciation	125,601		
Options	Net depreciation	(448)		
	<u>Fair Value</u>			
	<u>Forward Contracts</u>	<u>Futures</u>	<u>Options</u>	<u>Swaps</u>
Cash and Cash Equivalents	\$ (2,698)	\$ -	\$ -	\$ -
Fixed Income		(44,778)	(1,422)	3,632
Global Public Equity				42,507
Totals	<u>\$ (2,698)</u>	<u>\$(44,778)</u>	<u>\$ (1,422)</u>	<u>\$ 46,139</u>

At June 30, 2023, the Systems had the following exposure via futures contracts (dollar amounts expressed in thousands):

Futures Contracts	Expiration	Long/Short	Quantity	Notional Value ¹	Fair Value
EURO-BUND FUTURE (EUX)	September 2023	Short	(43)	\$ (6,274)	\$ 59
EURO-BUXL 30Y BND FUTURE (EUX)	September 2023	Short	(3)	(457)	(7)
US 10YR ULTRA FUTURE (CBT)	September 2023	Short	(56)	(6,633)	50
US LONG BOND FUTURE (CBT)	September 2023	Long	8,906	1,130,227	(762)
US LONG BOND FUTURE (CBT)	September 2023	Long	19	2,411	2
US 10YR NOTE FUTURE (CBT)	September 2023	Long	9,231	1,036,324	(18,487)
US 10YR NOTE FUTURE (CBT)	September 2023	Long	56	6,287	(108)
US 5YR TREAS NTS FUTURE (CBT)	September 2023	Long	37	3,963	(81)
US 5YR TREAS NTS FUTURE (CBT)	September 2023	Long	18,545	1,986,054	(38,552)
US 2YR NOTE FUTURE (CBT)	September 2023	Long	12	2,440	(24)
US ULTRA BOND (CBT)	September 2023	Long	9,943	1,354,423	13,087
US ULTRA BOND (CBT)	September 2023	Long	36	4,904	45
Totals				\$ 5,513,669	\$ (44,778)

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, 2023, the Systems had the following forward exposures, listed by counterparty (amounts expressed in thousands):

Broker	Notional Value	Fair Value	Counterparty Exposure
Bank of America	\$ 41,773	\$ (20)	12.56%
Bank of New York Mellon	134,874	(1,684)	40.57%
Barclays Bank PLC	1,562	(17)	0.48%
BNP Paribas Securities Corporation	140	3	0.04%
Citibank NA	2,502	(29)	0.75%
Goldman Sachs Bank USA/New York NY	2,571	(23)	0.77%
Goldman Sachs International	2,028	(10)	0.61%
HSBC Bank PLC	12,422	101	3.74%
HSBC Bank USA NA/New York NY	29,296	71	8.81%
JPMorgan Chase Bank NA	95,915	(995)	28.85%
Morgan Stanley & Co International PLC	855	(64)	0.26%
Morgan Stanley Capital Services LLC	161	4	0.05%
Nomura Securities International	1,603	11	0.48%
Royal Bank of Canada	838	(6)	0.25%
Standard Chartered Bank	777	8	0.23%
Toronto-Dominion Bank	496	(30)	0.15%
UBS AG/Stamford CT	4,650	(18)	1.40%
Totals	\$ 332,463	\$ (2,698)	100%

Swaps

The Systems 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, 2023, for currency forwards, swap agreements, and options (amounts expressed in thousands):

Quality rating	Forwards	Swaps	Options	Total
Aa1	\$ (20)	\$ (296)	\$ 14	\$ (302)
Aa2	(2,608)		(4)	(2,612)
Aa3	(103)	(39)	(74)	(216)
A1	22	42,507	(1,355)	41,174
A3	11		(3)	8
Total subject to credit risk	\$ (2,698)	\$ 42,172	\$ (1,422)	\$ 38,052
Centrally cleared:				
Chicago Mercantile Exchange	\$ -	\$ 2,906	\$ -	\$ 2,906
Intercontinental Exchange		(150)		(150)
LCH Ltd		1,211		1,211
Total not subject to credit risk	\$ -	\$ 3,967	\$ -	\$ 3,967
Totals	\$ (2,698)	\$ 46,139	\$ (1,422)	\$ 42,019

At June 30, 2023, 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
Goldman Sachs International	MSCI ACWI Proxy	Variable	Fixed	9/29/2023	\$ 750,346	\$ 42,507	\$ 129,155
					<u>\$ 750,346</u>	<u>\$ 42,507</u>	<u>\$ 129,155</u>

Counterparty	Fixed Income Swaps	SCRS Pays	SCRS Receives	Maturity Date	Current Notional	Fair Value ¹
Bank of America	Credit Default Swaps	Variable	Fixed	12/20/2026	\$ 3,400	\$ (121)
Bank of America	Cleared Credit Default Swaps	Fixed	Variable	6/20/2028	6,300	(175)
Morgan Stanley Capital Services	Credit Default Swaps	Variable	Fixed	12/20/2026	1,100	(39)
					<u>\$ 10,800</u>	<u>\$ (335)</u>
Chicago Mercantile Exchange	Cleared Interest Rate Swaps	Fixed	Variable	various	\$ 16,500	\$ 2,906
Intercontinental Exchange Holdings	Cleared Credit Default Swaps	Fixed/Variable	Fixed/Variable	various	44,448	(150)
LCH Ltd	Cleared Interest Rate Swaps	Fixed/Variable	Fixed/Variable	various	97,453	1,211
					<u>\$ 158,401</u>	<u>\$ 3,967</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, 2023, the Systems had the following option positions (dollar amounts expressed in thousands):

Option Contracts	Underlying Security	Expiration	Quantity	Fair Value
PUT JUL 23 003.650 ED 070623	CCP OIS R SOFR P 3.65%	July 2023	(200,000)	\$ (1)
CALL JUL 23 003.200 ED 070623	CCP OIS R SOFR P 3.2%	July 2023	(200,000)	(1)
PUT JUL 23 003.650 ED 070623	CCP OIS R SOFR P 3.65%	July 2023	(200,000)	(1)
CALL JUL 23 003.200 ED 070623	CCP OIS R SOFR P 3.2%	July 2023	(200,000)	(1)
PUT JUL 23 003.750 ED 071023	CCP OIS R SOFR P 3.75000%	July 2023	(200,000)	(1)
CALL JUL 23 003.300 ED 071023	CCP OIS R SOFR P 3.30000%	July 2023	(200,000)	(1)
PUT JUL 23 003.750 ED 071023	CCP OIS R SOFR P 3.75000%	July 2023	(200,000)	(1)
CALL JUL 23 003.300 ED 071023	CCP OIS R SOFR P 3.30000%	July 2023	(200,000)	(1)
PUT JUL 23 003.370 ED 071023	CCP OIS R SOFR P 3.37%	July 2023	(200,000)	(1)
CALL JUL 23 003.070 ED 071023	CCP OIS R SOFR P 3.07%	July 2023	(200,000)	(1)
PUT JUL 23 003.360 ED 071423	CCP OIS R SOFR P 3.36000%	July 2023	(100,000)	(1)
CALL JUL 23 003.060 ED 071423	CCP OIS R SOFR P 3.06000%	July 2023	(100,000)	(1)
PUT JUL 23 003.650 ED 072023	CCP OIS R SOFR P 3.65000%	July 2023	(400,000)	(1)
CALL JUL 23 003.250 ED 072023	CCP OIS R SOFR P 3.25000%	July 2023	(400,000)	(1)
PUT JUL 23 003.670 ED 072423	CCP OIS P SOFR R 3.67%	July 2023	(200,000)	(1)
CALL JUL 23 003.270 ED 072423	CCP OIS R SOFR P 3.27%	July 2023	(200,000)	(1)
PUT JUL 23 003.670 ED 072423	CCP OIS R SOFR P 3.67000%	July 2023	(200,000)	(1)
CALL JUL 23 003.270 ED 072423	CCP OIS R SOFR P 3.27000%	July 2023	(200,000)	(1)
PUT JUL 23 003.660 ED 072623	CCP OIS R SOFR P 3.66000%	July 2023	(200,000)	(1)
CALL JUL 23 003.260 ED 072623	CCP OIS R SOFR P 3.26000%	July 2023	(200,000)	(1)
PUT JUL 23 003.780 ED 07/31/23	CCP OIS P SOFR R 3.78000%	July 2023	(300,000)	(1)
CALL JUL 23 003.380 ED 7/31/23	CCP OIS R SOFR P 3.38000%	July 2023	(300,000)	(1)
PUT AUG 23 003.730 ED 080123	CCP OIS P SOFR R 3.73%	August 2023	(200,000)	(1)
CALL AUG 23 003.330 ED 080123	CCP OIS R SOFR P 3.33%	August 2023	(200,000)	(1)
PUT SEP 23 004.715 ED 091123	CCP OIS R SOFR P 4.71500%	September 2023	(10,100,000)	(28)
PUT SEP 23 003.750 ED 091123	CCP OIS R SOFR P 3.75000%	September 2023	10,100,000	76
PUT SEP 23 004.715 ED 091123	CCP OIS R SOFR P 4.71500%	September 2023	(9,900,000)	(28)
PUT SEP 23 004.233 ED 091123	CCP OIS R SOFR P 4.23250%	September 2023	(10,100,000)	(47)
PUT SEP 23 003.750 ED 091223	CCP OIS R SOFR P 3.75000%	September 2023	10,600,000	85
PUT SEP 23 004.250 ED 091223	CCP OIS R SOFR P 4.25000%	September 2023	(10,600,000)	(53)
PUT SEP 23 004.750 ED 091223	CCP OIS R SOFR P 4.75000%	September 2023	(10,600,000)	(32)
PUT SEP 23 004.200 ED 090623	CCP OIS R SOFR P 4.20%	September 2023	1,000,000	10
PUT SEP 23 090.000 ED 092023	CDX BP CDX.NA.IG.40.V1	September 2023	16,700,000	10
PUT NOV 23 003.750 ED 111723	CCP OIS R SOFR P 3.75000%	November 2023	(41,000,000)	(149)
CALL NOV 23 002.250 ED 111723	CCP OIS R SOFR P 2.25000%	November 2023	(41,000,000)	(149)
PUT DEC 23 003.750 ED 120723	CCP OIS R SOFT P 3.75%	December 2023	(5,700,000)	(18)
CALL DEC 23 002.250 ED 120723	CCP OIS R SOFR P 2.25%	December 2023	(5,700,000)	(18)
CALL DEC 23 000.200 ED 121923	CMS -0.2 2Y-10 CAP	December 2023	17,350,000	13
CALL DEC 23 000.200 ED 121923	CMS -0.2 2Y-10 CAP	December 2023	8,550,000	7
CALL DEC 23 000.002 ED 121923	CMS -0.2 2Y-10 CAP	December 2023	18,700,000	14
CALL DEC 23 000.200 ED 121923	CMS -0.2 2Y-10 CAP	December 2023	17,400,000	14
PUT MAR 24 005.100 ED 030424	CCP OIS R SOFR P 5.10000%	March 2024	(6,700,000)	(19)
PUT MAR 24 003.850 ED 030424	CCP OIS R SOFR P 3.85%	March 2024	800,000	19
CALL APR 24 002.690 ED 040224	CCP IRS R SOFR P 2.69000%	April 2024	(5,400,000)	(42)
CALL APR 24 002.697 ED 040224	CCP IRS R SOFR P 2.69700%	April 2024	(5,700,000)	(39)
PUT APR 24 002.781 ED 040524	CCP OIS R SOFR P 2.781%	April 2024	(34,600,000)	(267)
CALL APR 24 002.781 ED 040524	CCP OIS R SOFR P 2.781%	April 2024	(34,600,000)	(267)
PUT APR 24 002.688 ED 040224	CCP IRS R SOFR P 2.68750%	April 2024	(34,500,000)	(272)
PUT APR 24 002.690 ED 040224	CCP IRS R SOFR P 2.69000%	April 2024	(5,400,000)	(42)
PUT APR 24 002.697 ED 040224	CCP IRS R SOFR P 2.69700%	April 2024	(5,700,000)	(45)
CALL APR 24 002.688 ED 040224	CCP IRS R SOFR P 2.68750%	April 2024	(34,500,000)	(234)
CALL JUN 24 000.100 ED 062024	CMS 0.1 2Y-10 CAP	June 2024	17,250,000	28
CALL JUN 24 000.100 ED 062024	CMS 0.1 2Y-10 CAP	June 2024	8,650,000	14
CALL JUN 24 000.001 ED 062024	CMS 0.1 2Y-10 CAP	June 2024	18,700,000	31
CALL JUN 24 000.100 ED 062024	CMS 0.1 2Y-10 CAP	June 2024	17,400,000	30
Total Fixed Income				<u>\$ (1,422)</u>

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, 2023, 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	\$ 7,950,345	\$ 5,738,708	\$ 2,211,637
Private Debt	7,594,140	5,271,075	2,323,065
Private Real Estate	5,041,042	4,093,378	947,664
Private Infrastructure	1,175,000	875,239	299,761
Totals	\$ 21,760,527	\$ 15,978,400	\$ 5,782,127
Limited Partnerships EUR			
Private Equity	€ 353,109	€ 163,718	€ 189,391
Private Debt	8,000	8,000	
Private Infrastructure	125,000	125,000	
Totals	€ 486,109	€ 296,718	€ 189,391
Limited Partnerships AUD			
Private Equity	\$ 100,000	\$ 61,252	\$ 38,748
Private Infrastructure	40,000	40,000	
Totals	\$ 140,000	\$ 101,252	\$ 38,748
Limited Partnerships GBP			
Private Equity	£ 75,000	£ 24,623	£ 50,377
Private Debt	7,000	7,000	
Private Infrastructure	22,000	22,000	
Totals	£ 104,000	£ 53,623	£ 50,377

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.

The Commission's Policy requires that the maximum amount of securities that may be on loan is 65 percent of eligible securities. 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, 2023 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, 2023, the fair value of securities on loan was \$44.96 million. The fair value of the invested cash collateral was \$1.73 million, securities lending obligations were \$46.32 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 \$656 thousand, a decrease from \$1.5 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 three days. At June 30, 2023, 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, 2023:

	SCRS	PORS	GARS	JSRS	SCNG	06/30/23 TOTALS	06/30/22 TOTALS
Securities lent for cash collateral							
Corporate bonds	\$ 17,404	\$ 3,247	\$ 22	\$ 110	\$ 19	\$ 20,802	\$ 13,854
Global Public Equity	20,212	3,771	25	128	21	24,157	37,452
Total	\$ 37,616	\$ 7,018	\$ 47	\$ 238	\$ 40	\$ 44,959	\$ 51,306
Securities lent for non-cash collateral							
U. S. Government Securities	\$ 1,722	\$ 321	\$ 2	\$ 11	\$ 2	\$ 2,058	\$ 40,868
Global Public Equity	219,297	40,911	275	1,386	233	262,102	238,657
Total	\$221,019	\$ 41,232	\$ 277	\$1,397	\$ 235	\$ 264,160	\$ 279,525
Cash collateral invested as follows							
Repurchase agreements	\$ 1,443	\$ 269	\$ 2	\$ 9	\$ 2	\$ 1,725	\$ 9,336
Total	\$ 1,443	\$ 269	\$ 2	\$ 9	\$ 2	\$ 1,725	\$ 9,336
Securities received as collateral							
U.S. Government Securities	\$ 9,691	\$ 1,808	\$ 12	\$ 61	\$ 10	\$ 11,582	\$ 24,359
U.S. Government Agencies	2	1				3	
Global Public Equity	203,434	37,951	256	1,286	216	243,143	200,543
Global Fixed Income	27,283	5,090	34	172	29	32,608	80,332
Total	\$240,410	\$ 44,850	\$ 302	\$1,519	\$ 255	\$ 287,336	\$ 305,234

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, 2023, were as follows (amounts expressed in thousands):

Transfers from:	Transfers to:					
	SCRS	PORS	GARS	JSRS	SCNG	Total
SCRS	\$ -	\$2,120	\$ -	\$150	\$ -	\$2,270
PORS				41		41
GARS	135					135
JSRS						
SCNG						
Total	\$135	\$2,120	\$ -	\$191	\$ -	\$2,446

The following schedule reflects amounts due to or due from other systems as of June 30, 2023, (amounts expressed in thousands):

Due from:	Due to:					
	SCRS	PORS	GARS	JSRS	SCNG	Total
SCRS	\$ -	\$ 307	\$ -	\$ -	\$ -	\$ 307
PORS						
GARS						
JSRS						
SCNG						
Total	\$ -	\$ 307	\$ -	\$ -	\$ -	\$ 307

V. Related Party Transaction

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, 2023, a liability of approximately \$85.7 million was due to the South Carolina Retiree Health Insurance Trust Fund for insurance surcharge collected from employers in accordance with section 1-11-710 of the South Carolina State Statute. Employee and employer contributions receivable of approximately \$82.3 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 included funding to PEBA, to be distributed to some employers to help offset a

portion of the employer's retirement contributions. PEBA allocates amounts to employers in the same dollar amount for which credits were calculated in previous years. In no event shall a participating employer receive a credit that exceeds the employer contributions due from the employer for the fiscal year. PEBA issued credit invoices to certain SCRS and PORS employers who then applied the credit invoices towards contributions otherwise due to the Systems. The amount of credit invoices issued in fiscal year 2023 totaled \$88.7 million and \$12.5 million for SCRS and PORS respectively. The General Assembly also continues to fund \$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 exists 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, 2023, the benefits held in trust totaled \$214,307.

VII. Capital Assets

Capital assets at June 30, 2023, consist of the following amounts (expressed in thousands).

Asset Class (at Cost)	Ending Balances 6/30/2022	Additions	Deletions	Ending Balances 6/30/2023
Land	\$ 582	\$ -	\$ -	\$ 582
Building	4,749			4,749
Equipment	<u>1,697</u>	<u>78</u>	<u>(3)</u>	<u>1,772</u>
Total Capital Assets	<u>7,028</u>	<u>78</u>	<u>(3)</u>	<u>7,103</u>
Accumulated Depreciation				
Building	3,536	118		3,654
Equipment	<u>1,585</u>	<u>73</u>	<u>(3)</u>	<u>1,655</u>
Total Accumulated Depreciation	<u>5,121</u>	<u>191</u>	<u>(3)</u>	<u>5,309</u>
Capital Assets, Net	<u>\$ 1,907</u>	<u>\$ (113)</u>	<u>\$ -</u>	<u>\$ 1,794</u>

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, 2023, the total amount accrued for unused annual leave for PEBA's Retirement Division employees was \$1.14 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, 2023, PEBA's contributions to SCRS for Retirement Division staff were \$1.62 million of which \$82 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, 2022 projected forward to the end of the fiscal year, and financial information as of June 30, 2023, 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, 2023, 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	\$ 58,464,403	\$ 34,286,962	\$ 24,177,441	58.6%
PORS	9,450,021	6,405,925	3,044,096	67.8%
GARS	68,491	45,560	22,931	66.5%
JSRS	462,762	221,630	241,132	47.9%
SCNG	69,594	42,943	26,651	61.7%

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, 2023. The total pension liability for each plan is based on the actuarial valuations performed as of July 1, 2022 and rolled-forward from the valuation date to the plans' fiscal year ending June 30, 2023, using generally accepted actuarial principles. There was no legislation enacted during the 2023 legislative session that had a material change in the benefit provisions for any of the systems.

	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	7.00%	7.00%	7.00%	7.00%	7.00%
Projected salary increases	3.0% to 11.0% (varies by service)	3.5% to 10.5% (varies by service)	None	2.70%	None
Benefit adjustments	lesser of 1% or \$500 annually	lesser of 1% or \$500 annually	None	3.00%	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 2020 Public Retirees of South Carolina Mortality table (2020 PRSC), was developed using the Systems' mortality experience. These base rates are adjusted for future improvement in mortality using 80 percent of Scale UMP projected from the year 2020.

Former Job Class	Males	Females
Educators and Judges	2020 PRSC Males multiplied by 95%	2020 PRSC Females multiplied by 94%
General Employees and Members of the General Assembly	2020 PRSC Males multiplied by 97%	2020 PRSC Females multiplied by 107%
Public Safety, Firefighters and members of the South Carolina National Guard	2020 PRSC Males multiplied by 127%	2020 PRSC Females multiplied by 107%

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 2023 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 7.00 percent assumed annual investment rate of return used in the calculation of the total pension liability includes a 4.75 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
Public Equity	46.0%	6.62%	3.04%
Bonds	26.0%	0.31%	0.08%
Private Equity ¹	9.0%	10.91%	0.98%
Private Debt ¹	7.0%	6.16%	0.43%
Real Assets	12.0%		
Real Estate ¹	9.0%	6.41%	0.58%
Infrastructure ¹	3.0%	6.62%	0.20%
Total Expected Return ²	100.0%		5.31%
Inflation for Actuarial Purposes			2.25%
			<u>7.56%</u>

¹RSIC staff and consultant will notify the Commission if the collective exposure to Private Equity, Private Debt and Private Real Assets exceeds 30 percent of total plan assets.

²Portable Alpha Strategies, which are not included in the Policy Target, will be capped at 15% of total assets; hedge funds. (including all hedge funds used in portable alpha implementation) are capped at 15% of total assets.

The discount rate used to measure the total pension liability of each plan was 7.00 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 percent, as well as what the employers’ net pension liability would be if it were calculated using a discount rate that is 1 percent lower (6 percent) or 1 percent higher (8 percent) than the current rate.

Discount Rate Sensitivity Analysis

(Amounts expressed in thousands)

	1% Decrease (6%)	Current Discount Rate (7%)	1% Increase (8%)
SCRS	\$ 31,239,559	\$ 24,177,441	\$ 18,307,652
PORS	4,294,158	3,044,096	2,020,140
GARS	28,750	22,931	17,895
JSRS	293,397	241,132	197,507
SCNG	35,541	26,651	19,415

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, 2022 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 South Carolina Retirement Systems are involved in litigation relating to various matters arising in the ordinary course of business, including routine administrative litigation involving individual members' claims regarding their benefits. In the opinion of management, in consultation with legal counsel, the outcomes of these matters are not expected to have a material adverse effect on the Systems' financial position or operations.

South Carolina Retirement Systems Required Supplementary Information

Schedule of Changes in the Employers' Net Pension Liability

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

	2023	2022	2021	2020	2019
Total Pension Liability					
Service cost	\$ 1,120,136	\$ 1,069,012	\$ 1,028,783	\$ 975,416	\$ 967,897
Interest	3,869,177	3,778,285	3,678,394	3,551,535	3,463,073
Benefit changes					
Difference between actual and expected experience	502,096	(142,936)	232,794	392,332	(101,351)
Assumption changes			1,591,642		
Benefit payments	(3,481,786)	(3,381,161)	(3,244,221)	(3,148,155)	(3,078,289)
Net Change in Total Pension Liability	2,009,623	1,323,200	3,287,392	1,771,128	1,251,330
Total Pension Liability - Beginning	56,454,780	55,131,580	51,844,188	50,073,060	48,821,730
Total Pension Liability - Ending (a)	<u>\$58,464,403</u>	<u>\$56,454,780</u>	<u>\$55,131,580</u>	<u>\$51,844,188</u>	<u>\$ 50,073,060</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 2,133,553	\$ 1,884,209	\$ 1,673,320	\$ 1,647,757	\$ 1,450,308
Nonemployer contributions	88,706	88,706	88,706	88,706	88,706
Employee contributions	1,035,919	983,536	932,014	922,539	880,664
Refunds of contributions to members	(145,376)	(160,567)	(124,286)	(117,860)	(118,067)
Annuity benefits	(3,309,645)	(3,189,790)	(3,090,155)	(3,007,545)	(2,938,416)
Death benefits	(26,765)	(30,804)	(29,780)	(22,750)	(21,806)
Net investment income (loss)	2,317,284	(832,364)	7,767,185	(441,580)	1,499,391
Administrative expenses	(17,206)	(17,990)	(17,523)	(14,218)	(15,536)
Net transfers to other systems	(2,135)	(2,615)	(1,593)	(1,547)	(1,244)
Net Change in Plan Fiduciary Net Position	2,074,335	(1,277,679)	7,197,888	(946,498)	824,000
Plan Fiduciary Net Position - Beginning	32,212,627	33,490,306	26,292,418	27,238,916	26,414,916
Plan Fiduciary Net Position - Ending (b)	<u>\$34,286,962</u>	<u>\$32,212,627</u>	<u>\$33,490,306</u>	<u>\$26,292,418</u>	<u>\$ 27,238,916</u>
Net Pension Liability - Ending (a) - (b)	<u>\$24,177,441</u>	<u>\$24,242,153</u>	<u>\$21,641,274</u>	<u>\$25,551,770</u>	<u>\$ 22,834,144</u>

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

SCRS Pension Trust Fund (continued)

Years Ended June 30

(Amounts expressed in thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total Pension Liability					
Service cost	\$ 910,846	\$ 804,057	\$ 763,357	\$ 744,197	\$ 739,021
Interest	3,401,588	3,318,051	3,231,572	3,148,090	3,021,004
Benefit changes					
Difference between actual and expected experience	(172,340)	54,584	46,714	(44,636)	638,745
Assumption changes		1,746,649			
Benefit payments	(3,562,801)	(3,035,119)	(2,782,738)	(2,705,547)	(2,571,049)
Net Change in Total Pension Liability	577,293	2,888,222	1,258,905	1,142,104	1,827,721
Total Pension Liability - Beginning	48,244,437	45,356,215	44,097,310	42,955,206	41,127,485
Total Pension Liability - Ending (a)	<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	\$ 1,300,477	\$ 1,168,847	\$ 1,072,659	\$ 1,022,478	\$ 962,798
Nonemployer contributions	104,974				
Employee contributions	868,681	826,543	754,153	716,107	652,631
Refunds of contributions to members	(113,867)	(105,169)	(93,694)	(95,104)	(90,250)
Annuity benefits	(3,426,650)	(2,907,273)	(2,668,385)	(2,590,299)	(2,461,559)
Death benefits	(22,284)	(22,677)	(20,659)	(20,144)	(19,240)
Net investment income (loss)	1,986,948	2,791,215	(165,394)	374,152	3,517,324
Administrative expenses	(14,658)	(13,469)	(13,149)	(12,554)	(11,765)
Net transfers to other systems	(1,534)	(1,550)	(997)	(1,329)	(2,470)
Net Change in Plan Fiduciary Net Position	682,087	1,736,467	(1,135,466)	(606,693)	2,547,469
Plan Fiduciary Net Position - Beginning	25,732,829	23,996,362	25,131,828	25,738,521	23,191,052
Plan Fiduciary Net Position - Ending (b)	<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>\$22,406,814</u>	<u>\$22,511,608</u>	<u>\$21,359,853</u>	<u>\$18,965,482</u>	<u>\$17,216,685</u>

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

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

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>
Total Pension Liability					
Service cost	\$ 228,881	\$ 218,062	\$ 206,733	\$ 198,744	\$ 189,379
Interest	616,200	598,566	574,351	548,454	528,699
Benefit changes					
Difference between actual and expected experience	165,789	(78,185)	70,304	49,922	(27,766)
Assumption changes			242,143		
Benefit payments	(498,536)	(485,343)	(455,331)	(432,483)	(412,535)
Net Change in Total Pension Liability	<u>512,334</u>	<u>253,100</u>	<u>638,200</u>	<u>364,637</u>	<u>277,777</u>
Total Pension Liability - Beginning	<u>8,937,687</u>	<u>8,684,587</u>	<u>8,046,387</u>	<u>7,681,750</u>	<u>7,403,973</u>
Total Pension Liability - Ending (a)	<u>\$ 9,450,021</u>	<u>\$ 8,937,687</u>	<u>\$ 8,684,587</u>	<u>\$ 8,046,387</u>	<u>\$ 7,681,750</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 342,451	\$ 292,364	\$ 262,577	\$ 263,135	\$ 237,821
Nonemployer contributions	12,470	12,470	12,470	12,470	12,470
Employee contributions	179,072	163,536	152,148	151,835	144,747
Refunds of contributions to members	(25,820)	(32,691)	(24,346)	(22,492)	(21,608)
Annuity benefits	(468,123)	(447,401)	(425,232)	(405,790)	(387,228)
Death benefits	(4,593)	(5,251)	(5,753)	(4,201)	(3,699)
Net investment income (loss)	432,834	(155,638)	1,411,353	(79,106)	264,323
Administrative expenses	(3,153)	(3,257)	(3,121)	(2,469)	(2,596)
Net transfers to other systems	2,080	2,904	1,401	984	1,148
Net Change in Plan Fiduciary Net Position	<u>467,218</u>	<u>(172,964)</u>	<u>1,381,497</u>	<u>(85,634)</u>	<u>245,378</u>
Plan Fiduciary Net Position - Beginning	<u>5,938,708</u>	<u>6,111,672</u>	<u>4,730,175</u>	<u>4,815,809</u>	<u>4,570,431</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 6,405,926</u>	<u>\$ 5,938,708</u>	<u>\$ 6,111,672</u>	<u>\$ 4,730,175</u>	<u>\$ 4,815,809</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 3,044,095</u>	<u>\$ 2,998,979</u>	<u>\$ 2,572,915</u>	<u>\$ 3,316,212</u>	<u>\$ 2,865,941</u>

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

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

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total Pension Liability					
Service cost	\$ 184,570	\$ 166,682	\$ 156,567	\$ 154,102	\$ 149,606
Interest	500,758	473,059	453,696	435,329	417,950
Benefit changes					
Difference between actual and expected experience	102,882	5,044	11,582	6,771	64,336
Assumption changes		333,190			
Benefit payments	(397,921)	(376,801)	(360,656)	(344,410)	(331,783)
Net Change in Total Pension Liability	<u>390,289</u>	<u>601,174</u>	<u>261,189</u>	<u>251,792</u>	<u>300,109</u>
Total Pension Liability - Beginning	<u>7,013,684</u>	<u>6,412,510</u>	<u>6,151,321</u>	<u>5,899,529</u>	<u>5,599,420</u>
Total Pension Liability - Ending (a)	<u>\$ 7,403,973</u>	<u>\$ 7,013,684</u>	<u>\$ 6,412,510</u>	<u>\$ 6,151,321</u>	<u>\$ 5,899,529</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 211,793	\$ 192,006	\$ 175,223	\$ 166,451	\$ 155,608
Nonemployer contributions	13,122				
Employee contributions	138,652	127,840	115,188	106,854	96,004
Refunds of contributions to members	(23,899)	(19,964)	(19,178)	(17,453)	(16,184)
Annuity benefits	(369,536)	(352,986)	(337,928)	(323,252)	(311,593)
Death benefits	(4,485)	(3,852)	(3,550)	(3,705)	(4,007)
Net investment income (loss)	331,529	455,914	(24,636)	58,705	538,386
Administrative expenses	(2,402)	(2,149)	(2,055)	(1,938)	(1,820)
Net transfers to other systems	1,534	1,278	1,147	1,061	2,260
Net Change in Plan Fiduciary Net Position	<u>296,308</u>	<u>398,087</u>	<u>(95,789)</u>	<u>(13,277)</u>	<u>458,654</u>
Plan Fiduciary Net Position - Beginning	<u>4,274,123</u>	<u>3,876,036</u>	<u>3,971,825</u>	<u>3,985,102</u>	<u>3,526,448</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 4,570,431</u>	<u>\$ 4,274,123</u>	<u>\$ 3,876,036</u>	<u>\$ 3,971,825</u>	<u>\$ 3,985,102</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,833,542</u>	<u>\$ 2,739,561</u>	<u>\$ 2,536,474</u>	<u>\$ 2,179,496</u>	<u>\$ 1,914,427</u>

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

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

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>
Total Pension Liability					
Service cost	\$ 263	\$ 275	\$ 364	\$ 358	\$ 440
Interest	4,698	4,815	4,937	5,003	5,149
Benefit changes					
Difference between actual and expected experience	(289)	(420)	379	60	(1,135)
Assumption changes			1,386		
Benefit payments	(6,328)	(6,348)	(6,315)	(6,348)	(6,515)
Net Change in Total Pension Liability	<u>(1,656)</u>	<u>(1,678)</u>	<u>751</u>	<u>(927)</u>	<u>(2,061)</u>
Total Pension Liability - Beginning	<u>70,147</u>	<u>71,825</u>	<u>71,074</u>	<u>72,001</u>	<u>74,062</u>
Total Pension Liability - Ending (a)	<u>\$ 68,491</u>	<u>\$ 70,147</u>	<u>\$ 71,825</u>	<u>\$ 71,074</u>	<u>\$ 72,001</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 6,308	\$ 6,279	\$ 5,956	\$ 6,329	\$ 5,804
Employee contributions	155	164	184	222	162
Refunds of contributions to members			(77)		(17)
Annuity benefits	(6,313)	(6,332)	(6,222)	(6,323)	(6,480)
Death benefits	(15)	(16)	(16)	(25)	(18)
Net investment income (loss)	3,106	(1,045)	9,444	(443)	1,887
Administrative expenses	(22)	(23)	(23)	(18)	(20)
Net transfers to other systems	(135)	(206)	(45)		
Net Change in Plan Fiduciary Net Position	<u>3,084</u>	<u>(1,179)</u>	<u>9,201</u>	<u>(258)</u>	<u>1,318</u>
Plan Fiduciary Net Position - Beginning	<u>42,476</u>	<u>43,655</u>	<u>34,454</u>	<u>34,712</u>	<u>33,394</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 45,560</u>	<u>\$ 42,476</u>	<u>\$ 43,655</u>	<u>\$ 34,454</u>	<u>\$ 34,712</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 22,931</u>	<u>\$ 27,671</u>	<u>\$ 28,170</u>	<u>\$ 36,620</u>	<u>\$ 37,289</u>

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

GARS Pension Trust Fund (continued)

Years Ended June 30

(Amounts expressed in thousands)

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

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

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

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>
Total Pension Liability					
Service cost	\$ 9,791	\$ 9,515	\$ 8,718	\$ 8,919	\$ 6,645
Interest	31,468	30,554	29,199	28,154	21,737
Benefit changes					
Difference between actual and expected experience	(9,303)	(249)	4,000	3,262	80,801
Assumption changes			17,439		
Benefit payments	(27,697)	(26,099)	(25,941)	(25,673)	(17,950)
Net Change in Total Pension Liability	<u>4,259</u>	<u>13,721</u>	<u>33,415</u>	<u>14,662</u>	<u>91,233</u>
Total Pension Liability - Beginning	<u>458,503</u>	<u>444,782</u>	<u>411,367</u>	<u>396,705</u>	<u>305,472</u>
Total Pension Liability - Ending (a)	<u>\$ 462,762</u>	<u>\$ 458,503</u>	<u>\$ 444,782</u>	<u>\$ 411,367</u>	<u>\$ 396,705</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 20,164	\$ 19,577	\$ 19,100	\$ 19,098	\$ 11,730
Nonemployer contributions	2,900	2,900	2,900	2,900	
Employee contributions	4,236	3,012	3,587	4,966	2,840
Refunds of contributions to members				(182)	
Annuity benefits	(27,686)	(26,089)	(25,746)	(25,301)	(17,947)
Death benefits	(11)	(10)	(195)	(190)	(3)
Net investment income (loss)	15,272	(5,202)	47,659	(2,361)	9,183
Administrative expenses	(110)	(114)	(109)	(86)	(92)
Net transfers to other systems	191	(83)	237	563	96
Net Change in Plan Fiduciary Net Position	<u>14,956</u>	<u>(6,009)</u>	<u>47,433</u>	<u>(593)</u>	<u>5,807</u>
Plan Fiduciary Net Position - Beginning	<u>206,674</u>	<u>212,683</u>	<u>165,250</u>	<u>165,843</u>	<u>160,036</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 221,630</u>	<u>\$ 206,674</u>	<u>\$ 212,683</u>	<u>\$ 165,250</u>	<u>\$ 165,843</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 241,132</u>	<u>\$ 251,829</u>	<u>\$ 232,099</u>	<u>\$ 246,117</u>	<u>\$ 230,862</u>

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

JSRS Pension Trust Fund (continued)

Years Ended June 30

(Amounts expressed in thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total Pension Liability					
Service cost	\$ 6,521	\$ 6,186	\$ 5,886	\$ 5,760	\$ 5,571
Interest	21,271	20,404	20,022	19,440	18,857
Benefit changes				666	
Difference between actual and expected experience	(3,548)	(995)	(3,085)	(1,138)	(3,240)
Assumption changes		13,790			
Benefit payments	(17,811)	(18,602)	(17,191)	(16,836)	(16,684)
Net Change in Total Pension Liability	<u>6,433</u>	<u>20,783</u>	<u>5,632</u>	<u>7,892</u>	<u>4,504</u>
Total Pension Liability - Beginning	<u>299,039</u>	<u>278,256</u>	<u>272,624</u>	<u>264,732</u>	<u>260,228</u>
Total Pension Liability - Ending (a)	<u>\$ 305,472</u>	<u>\$ 299,039</u>	<u>\$ 278,256</u>	<u>\$ 272,624</u>	<u>\$ 264,732</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 11,043	\$ 10,534	\$ 10,202	\$ 10,109	\$ 9,659
Nonemployer contributions					
Employee contributions	3,016	2,928	2,303	3,153	2,448
Refunds of contributions to members		(629)	(60)		
Annuity benefits	(17,655)	(17,679)	(16,989)	(16,832)	(16,675)
Death benefits	(156)	(293)	(143)	(4)	(10)
Net investment income (loss)	11,723	16,399	(871)	2,216	19,962
Administrative expenses	(86)	(79)	(75)	(71)	(68)
Net transfers to other systems		253	(3)	286	195
Net Change in Plan Fiduciary Net Position	<u>7,885</u>	<u>11,434</u>	<u>(5,636)</u>	<u>(1,143)</u>	<u>15,511</u>
Plan Fiduciary Net Position - Beginning	<u>152,151</u>	<u>140,717</u>	<u>146,353</u>	<u>147,496</u>	<u>131,985</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 160,036</u>	<u>\$ 152,151</u>	<u>\$ 140,717</u>	<u>\$ 146,353</u>	<u>\$ 147,496</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 145,436</u>	<u>\$ 146,888</u>	<u>\$ 137,539</u>	<u>\$ 126,271</u>	<u>\$ 117,236</u>

South Carolina Retirement Systems Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

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

	2023	2022	2021	2020	2019
Total Pension Liability					
Service cost	\$ 782	\$ 791	\$ 696	\$ 805	\$ 786
Interest	4,706	4,654	4,754	4,731	4,764
Benefit changes					
Difference between actual and expected experience	(392)	(59)	(960)	(627)	(1,501)
Assumption changes			971		
Benefit payments	(4,669)	(4,607)	(4,574)	(4,514)	(4,534)
Net Change in Total Pension Liability	427	779	887	395	(485)
Total Pension Liability - Beginning	69,167	68,388	67,501	67,106	67,591
Total Pension Liability - Ending (a)	<u>\$ 69,594</u>	<u>\$ 69,167</u>	<u>\$ 68,388</u>	<u>\$ 67,501</u>	<u>\$ 67,106</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 5,290	\$ 5,290	\$ 5,290	\$ 5,290	\$ 5,290
Employee contributions					
Refunds of contributions to members					
Annuity benefits	(4,669)	(4,607)	(4,574)	(4,514)	(4,534)
Death benefits					
Net investment income (loss)	2,776	(878)	7,996	(352)	1,616
Administrative expenses	(21)	(22)	(20)	(15)	(16)
Net transfers to other systems					
Net Change in Plan Fiduciary Net Position	3,376	(217)	8,692	409	2,356
Plan Fiduciary Net Position - Beginning	39,567	39,784	31,092	30,683	28,327
Plan Fiduciary Net Position - Ending (b)	<u>\$ 42,943</u>	<u>\$ 39,567</u>	<u>\$ 39,784</u>	<u>\$ 31,092</u>	<u>\$ 30,683</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 26,651</u>	<u>\$ 29,600</u>	<u>\$ 28,604</u>	<u>\$ 36,409</u>	<u>\$ 36,423</u>

South Carolina Retirement Systems
Required Supplementary Information (continued)

Schedule of Changes in the Employers' Net Pension Liability

SCNG Pension Trust Fund (continued)

Years Ended June 30

(Amounts expressed in thousands)

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

South Carolina Retirement Systems

Required Supplementary Information (continued)

Schedule of Employers' Net Pension Liability

(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 ¹	Net Pension Liability as a Percentage of Covered Payroll
SCRS						
6/30/2023	\$ 58,464,403	\$ 34,286,962	\$ 24,177,441	58.6%	\$ 10,429,574	231.8%
6/30/2022	56,454,780	32,212,627	24,242,153	57.1%	9,925,834	244.2%
6/30/2021	55,131,580	33,490,306	21,641,274	60.7%	9,788,610	221.1%
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						
6/30/2023	9,450,021	6,405,925	3,044,096	67.8%	1,513,764	201.1%
6/30/2022	8,937,687	5,938,708	2,998,979	66.4%	1,434,621	209.0%
6/30/2021	8,684,587	6,111,672	2,572,915	70.4%	1,440,645	178.6%
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						
6/30/2023	68,491	45,560	22,931	66.5%	1,204	1,905.1%
6/30/2022	70,147	42,476	27,671	60.6%	1,249	2,216.2%
6/30/2021	71,825	43,655	28,170	60.8%	1,570	1,794.0%
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						
6/30/2023	462,762	221,630	241,132	47.9%	32,037	752.7%
6/30/2022	458,503	206,674	251,829	45.1%	31,104	809.6%
6/30/2021	444,782	212,683	232,099	47.8%	30,346	764.8%
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						
6/30/2023	69,594	42,943	26,651	61.7%	Not Applicable ²	Not Applicable ²
6/30/2022	69,167	39,567	29,600	57.2%	Not Applicable ²	Not Applicable ²
6/30/2021	68,388	39,784	28,604	58.2%	Not Applicable ²	Not Applicable ²
6/30/2020	67,501	31,092	36,409	46.1%	Not Applicable ²	Not Applicable ²
6/30/2019	67,106	30,683	36,423	45.7%	Not Applicable ²	Not Applicable ²
6/30/2018	67,591	28,327	39,264	41.9%	Not Applicable ²	Not Applicable ²
6/30/2017	67,222	26,036	41,186	38.7%	Not Applicable ²	Not Applicable ²
6/30/2016	63,045	23,350	39,695	37.0%	Not Applicable ²	Not Applicable ²
6/30/2015	63,064	23,202	39,862	36.8%	Not Applicable ²	Not Applicable ²
6/30/2014	61,530	22,558	38,972	36.7%	Not Applicable ²	Not Applicable ²

¹Projected 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.

²The 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					
6/30/2023	\$ 2,222,259	\$ 2,222,259	\$ -	\$ 10,429,574	21.3%
6/30/2022	1,972,915	1,972,915		9,925,834	19.9%
6/30/2021	1,762,026	1,762,026		9,788,610	18.0%
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%
PORS¹					
6/30/2023	354,921	354,921		1,513,764	23.4%
6/30/2022	304,834	304,834		1,434,621	21.2%
6/30/2021	275,047	275,047		1,440,645	19.1%
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%
GARS⁵					
6/30/2023	6,308	6,308		1,204	523.9%
6/30/2022	6,279	6,279		1,249	502.7%
6/30/2021	5,956	5,956		1,570	379.4%
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%

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					
6/30/2023	\$ 23,064	\$ 23,064	\$ -	\$ 32,037	72.0%
6/30/2022	22,477	22,477		31,104	72.3%
6/30/2021	22,000	22,000		30,346	72.5%
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%
SCNG⁶					
6/30/2023	3,984	5,290	(1,306)	Not Applicable	Not Applicable
6/30/2022	4,405	5,290	(885)	Not Applicable	Not Applicable
6/30/2021	5,188	5,290	(102)	Not Applicable	Not Applicable
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

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, 2022, are 17.56 percent and 20.24 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, 2022, 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
2023	6.80%
2022	(0.91)
2021	28.48
2020	(1.59)
2019	5.70
2018	7.89
2017	11.82
2016	(0.51)
2015	1.55
2014	15.30

¹Trailing periods reflect a performance correction that affected the time period 03/31/2015 through 6/30/2022.

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 2023 for each of the individual plans administered by PEBA.

Summary of Actuarial Methods and Significant Assumptions¹

	SCRS	PORS	GARS	JSRS	SCNG
Valuation date	07/01/21	07/01/21	07/01/21	07/01/21	07/01/21
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	26 years maximum, closed period ²	26 years maximum, closed period ²	6 years, closed	26 years maximum, closed period	15 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 21 years of service ³	None	3% ³	None
Investment rate of return	7%	7%	7%	7%	7%
Benefit adjustments	lesser of 1% or \$500 annually	lesser of 1% or \$500 annually	None	3%	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 from 30 years to 20 years over a ten-year schedule.

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, 2023

With summarized comparative totals for the year ended June 30, 2022
(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	DEATH BENEFIT FUND	QEBA FUND	TOTAL	2022 TOTAL
Additions						
Employee contributions						
State	\$ 303,964	\$ 8,807	\$ -	\$ -	\$ 312,771	\$ 293,393
Public school	424,324	23,869			448,193	427,328
Other	265,635	9,320			274,955	262,815
Employer contributions						
State		725,792	7,116	1,041	733,949	635,760
Public school		877,683	8,161		885,844	789,312
Other		509,725	4,035		513,760	459,137
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>993,923</u>	<u>2,243,902</u>	<u>19,312</u>	<u>1,041</u>	<u>3,258,178</u>	<u>2,956,451</u>
Investment income						
Net appreciation (depreciation)						
in fair value of investments		2,241,440	8,937		2,250,377	(664,686)
Interest and dividend income		463,202	1,842		465,044	422,985
Investment expense		(397,105)	(1,581)		(398,686)	(591,922)
Net income (loss) from investing activities		<u>2,307,537</u>	<u>9,198</u>		<u>2,316,735</u>	<u>(833,623)</u>
From securities lending activities:						
Securities lending income		724	3		727	694
Securities lending borrower rebates		(177)	(1)		(178)	565
Net income from securities lending activities		<u>547</u>	<u>2</u>		<u>549</u>	<u>1,259</u>
Total net investment income (loss)		<u>2,308,084</u>	<u>9,200</u>		<u>2,317,284</u>	<u>(832,364)</u>
Supplemental retirement benefits funded by the State		182			182	235
Transfers of contributions from other systems	135				135	289
Total additions	<u>994,058</u>	<u>4,552,168</u>	<u>28,512</u>	<u>1,041</u>	<u>5,575,779</u>	<u>2,124,611</u>
Deductions						
Refunds of contributions to members	145,376				145,376	160,567
Transfers of contributions to other systems	1,317	953			2,270	2,904
Regular retirement benefits		3,308,604		1,041	3,309,645	3,189,790
Supplemental retirement benefits		182			182	235
Death benefits		(124)	26,889		26,765	30,804
Depreciation		168			168	156
Administrative expenses		16,970	68		17,038	17,834
Total deductions	<u>146,693</u>	<u>3,326,753</u>	<u>26,957</u>	<u>1,041</u>	<u>3,501,444</u>	<u>3,402,290</u>
Interfund transfers according to statutory requirements						
Contributions by members at retirement	(734,369)	734,369				
Interest credited to members' accounts	366,085	(366,085)				
Net interfund transfers	<u>(368,284)</u>	<u>368,284</u>				
Net increase (decrease) in Net Position	479,081	1,593,699	1,555		2,074,335	(1,277,679)
Net Position Restricted for Pensions						
Beginning of year	10,675,964	21,408,896	127,767		32,212,627	33,490,306
End of year	<u>\$11,155,045</u>	<u>\$23,002,595</u>	<u>\$ 129,322</u>	<u>\$ -</u>	<u>\$34,286,962</u>	<u>\$32,212,627</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

PORS Pension Trust Fund
Year Ended June 30, 2023

With summarized comparative totals for the year ended June 30, 2022
(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	DEATH BENEFIT FUND	ACCIDENTAL DEATH FUND	QEBA FUND	TOTAL	2022 TOTAL
Additions							
Employee contributions							
State	\$ 48,764	\$ 2,291	\$ -	\$ -	\$ -	\$ 51,055	\$ 44,936
Public school	186	575				761	525
Other	118,823	8,433				127,256	118,075
Employer contributions							
State		95,037	998	998	1	97,034	79,248
Public school		1,250	13	13		1,276	1,129
Other		239,379	2,435	2,327		244,141	211,987
Nonemployer contributions							
State		4,070				4,070	4,070
Public school		44				44	44
Other		8,356				8,356	8,356
Total contributions	<u>167,773</u>	<u>359,435</u>	<u>3,446</u>	<u>3,338</u>	<u>1</u>	<u>533,993</u>	<u>468,370</u>
Investment income							
Net appreciation (depreciation)							
in fair value of investments		409,671	4,376	6,152		420,199	(124,530)
Interest and dividend income		84,649	899	1,264		86,812	78,021
Investment expense		(72,420)	(773)	(1,086)		(74,279)	(109,361)
Net income (loss) from investing activities		<u>421,900</u>	<u>4,502</u>	<u>6,330</u>		<u>432,732</u>	<u>(155,870)</u>
From securities lending activities:							
Securities lending income		132	1	2		135	128
Securities lending borrower rebates		(33)				(33)	104
Net income from securities lending activities		<u>99</u>	<u>1</u>	<u>2</u>		<u>102</u>	<u>232</u>
Total net investment income (loss)		<u>421,999</u>	<u>4,503</u>	<u>6,332</u>		<u>432,834</u>	<u>(155,638)</u>
Supplemental retirement benefits funded by the State		6				6	8
Transfers of contributions from other systems	1,168	952				2,120	2,904
Total additions	<u>168,941</u>	<u>782,392</u>	<u>7,949</u>	<u>9,670</u>	<u>1</u>	<u>968,953</u>	<u>315,644</u>
Deductions							
Refunds of contributions to members	25,820					25,820	32,691
Transfers of contributions to other systems	23	18				41	
Regular retirement benefits		468,122			1	468,123	447,401
Supplemental retirement benefits		6				6	8
Death Benefits		(6)	2,578			2,572	3,236
Accidental death benefits				2,021		2,021	2,015
Depreciation		22				22	20
Administrative expenses		3,053	32	46		3,131	3,237
Total deductions	<u>25,843</u>	<u>471,215</u>	<u>2,610</u>	<u>2,067</u>	<u>1</u>	<u>501,736</u>	<u>488,608</u>
Interfund transfers according to statutory requirements							
Contributions by members at retirement	(93,384)	93,384					
Interest credited to members' accounts	49,751	(49,751)					
Net interfund transfers	<u>(43,633)</u>	<u>43,633</u>					
Net increase (decrease) in Net Position	99,465	354,810	5,339	7,603		467,217	(172,964)
Net Position Restricted for Pensions							
Beginning of year	1,400,421	4,389,683	61,765	86,839		5,938,708	6,111,672
End of year	<u>\$ 1,499,886</u>	<u>\$ 4,744,493</u>	<u>\$ 67,104</u>	<u>\$ 94,442</u>	<u>\$ -</u>	<u>\$ 6,405,925</u>	<u>\$ 5,938,708</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

GARS Pension Trust Fund
Year Ended June 30, 2023

With summarized comparative totals for the year ended June 30, 2022
(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	QEBA FUND	TOTAL	2022 TOTAL
Additions					
Contributions					
Employee contributions - State	\$ 155	\$ -	\$ -	\$ 155	\$ 164
Employer contributions - State		6,304	4	6,308	6,279
Total contributions	<u>155</u>	<u>6,304</u>	<u>4</u>	<u>6,463</u>	<u>6,443</u>
Investment income					
Net appreciation (depreciation) in fair value of investments		2,825		2,825	(841)
Interest and dividend income		779		779	529
Investment expense		(498)		(498)	(735)
Net income (loss) from investing activities		<u>3,106</u>		<u>3,106</u>	<u>(1,047)</u>
From securities lending activities:					
Securities lending income		1		1	1
Securities lending borrower rebates		(1)		(1)	1
Net income from securities lending activities					2
Total net investment income (loss)		<u>3,106</u>		<u>3,106</u>	<u>(1,045)</u>
Total additions	<u>155</u>	<u>9,410</u>	<u>4</u>	<u>9,569</u>	<u>5,398</u>
Deductions					
Refunds of contributions to members					
Transfers of contributions to other systems	135			135	206
Regular retirement benefits		6,309	4	6,313	6,332
Death benefits		15		15	16
Administrative expenses		22		22	23
Total deductions	<u>135</u>	<u>6,346</u>	<u>4</u>	<u>6,485</u>	<u>6,577</u>
Interfund transfers according to statutory requirements					
Contributions by members at retirement	(1,112)	1,112			
Interest credited to members' accounts	192	(192)			
Net interfund transfers	<u>(920)</u>	<u>920</u>			
Net increase (decrease) in Net Position	(900)	3,984		3,084	(1,179)
Net Position Restricted for Pensions					
Beginning of year	6,508	35,968		42,476	43,655
End of year	<u>\$ 5,608</u>	<u>\$ 39,952</u>	<u>\$ -</u>	<u>\$ 45,560</u>	<u>\$ 42,476</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

JSRS Pension Trust Fund
Year Ended June 30, 2023

With summarized comparative totals for the year ended June 30, 2022
(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	QEBA FUND	TOTAL	2022 TOTAL
Additions					
Contributions					
Employee contributions - State	\$ 3,915	\$ 321	\$ -	\$ 4,236	\$ 3,012
Employer contributions - State		19,479	685	20,164	19,577
Nonemployer contributions		2,900		2,900	2,900
Total contributions	<u>3,915</u>	<u>22,700</u>	<u>685</u>	<u>27,300</u>	<u>25,489</u>
Investment income					
Net appreciation (depreciation) in fair value of investments		14,233		14,233	(4,235)
Interest and dividend income		3,552		3,552	2,729
Investment expense		(2,517)		(2,517)	(3,703)
Net income (loss) from investing activities		<u>15,268</u>		<u>15,268</u>	<u>(5,209)</u>
From securities lending activities:					
Securities lending income		5		5	4
Securities lending borrower rebates		(1)		(1)	3
Net income from securities lending activities		<u>4</u>		<u>4</u>	<u>7</u>
Total net investment income (loss)		<u>15,272</u>		<u>15,272</u>	<u>(5,202)</u>
Transfers of contributions from other systems	<u>173</u>	<u>18</u>		<u>191</u>	
Total additions	<u>4,088</u>	<u>37,990</u>	<u>685</u>	<u>42,763</u>	<u>20,287</u>
Deductions					
Refunds of contributions to members					83
Transfer of contributions to other systems					26,089
Regular retirement benefits		26,659	685	27,344	
Deferred retirement benefits		342		342	
Death benefits		11		11	10
Depreciation		1		1	1
Administrative expenses		109		109	113
Total deductions		<u>27,122</u>	<u>685</u>	<u>27,807</u>	<u>26,296</u>
Interfund transfers according to statutory requirements					
Contributions by members at retirement	(5,972)	5,972			
Interest credited to members' accounts	1,209	(1,209)			
Net interfund transfers	<u>(4,763)</u>	<u>4,763</u>			
Net increase (decrease) in Net Position	(675)	15,631		14,956	(6,009)
Net Position Restricted for Pensions					
Beginning of year	36,092	170,582		206,674	212,683
End of year	<u>\$ 35,417</u>	<u>\$ 186,213</u>	<u>\$ -</u>	<u>\$ 221,630</u>	<u>\$ 206,674</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

SCNG Pension Trust Fund
Year Ended June 30, 2023

With summarized comparative totals for the year ended June 30, 2022
(Amounts expressed in thousands)

	2023 Total	2022 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	2,392	(712)
Interest and dividend income	806	454
Investment expense	(423)	(622)
Net Income (loss) from investing activities	2,775	(880)
From securities lending activities:		
Securities lending income	1	1
Securities lending borrower rebates	—	1
Net income from securities lending activities	1	2
Total net investment income (loss)	2,776	(878)
Total additions	8,066	4,412
Deductions		
Regular retirement benefits	4,669	4,607
Administrative expenses	21	22
Total deductions	4,690	4,629
Net increase in Net Position	3,376	(217)
Net Position Restricted for Pensions		
Beginning of year	39,567	39,784
End of year	\$ 42,943	\$ 39,567

South Carolina Retirement Systems Schedule of Administrative Expenses

Year Ended June 30, 2023
(Amounts expressed in thousands)

Personnel Services

Salaries and Wages	\$ 9,644
Employee Benefits	<u>3,898</u>
Total Personnel Services	13,542

Professional and Consultant Fees

Information Technology	3,147
Medical and Health Services	174
Financial Audit	220
Actuarial Services	263
Management Professional Services	1,148
Legal Services	<u>33</u>
Total Professional and Consultant Fees	4,985

Operating Expenses

Facilities Management	209
Software Licenses and Programs	829
Furniture and Equipment - Expensed	2
Communications and Utilities	154
Insurance	285
Postage	237
Supplies	66
Miscellaneous Expenses	<u>12</u>
Total Operating Expenses	1,794

Total Administrative Expenses	<u>\$ 20,321</u>
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Allocation of Administrative Expenses

SCRS	\$ 17,038
PORS	3,131
GARS	22
JSRS	109
SCNG	<u>21</u>
Total Administrative Expenses	<u>\$ 20,321</u>

South Carolina Retirement Systems

Schedule of Professional and Consultant Fees

Year Ended June 30, 2023
(Amounts expressed in thousands)

<u>Professional / Consultant Type</u>	<u>Nature of Service Provided</u>	<u>Amounts</u>
CapFinancial Partners	Investment Advisory Services	\$ 80
Cavanaugh Macdonald Consulting	Actuarial Consulting Services	68
Crowe	Audit and Consulting Services	220
Gabriel Roeder Smith & Company	Actuarial and Consulting Services	195
Ice Miller	IRC Consulting Services and Compliance Review	13
ICON Integration & Design	Data Conversion and Bridging Services	229
LifeWorks	Benefits Administration Solution Implementation	2,308
Linea Solutions	Client Services Vendor to Facilitate and Support Program Activities	824
NWN Corporation	IT Installation Services	152
Robinson Gray Stepp & Laffitte	Legal/Attorney Services	19
SHI International	IT Training	38
Soteria	Cyber Security Consulting Services	20
Standard Insurance Company	Disability Review Services	81
Tapfin	Application Development Resources	470
TierPoint	Disaster Recovery Solution Services	116
Vocational Rehabilitation	Disability Review Services	93
Aggregate of payees less than \$10,000 each	Professional and Consulting Services	59
Total Professional and Consultant Fees		\$ 4,985

South Carolina Retirement Systems

Schedule of Investment Fees and Expenses

Year Ended June 30, 2023
(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTALS ¹
Short Term	\$ 143	\$ 27	\$ -	\$ 1	\$ -	\$ 171
Fixed Income:						
Core Bonds (IG) ²	8,777	1,636	11	56	9	10,489
Mixed Credit	(132)	(25)	(1)			(158)
Emerging Market Debt	99	18		1		118
Global Public Equity	2,676	499	3	17	3	3,198
Public Real Estate	989	184	1	6	1	1,181
Public Infrastructure	378	71		2	1	452
Beta Overlay	858	160	1	5	1	1,025
Alternatives:						
Hedge Funds	165,027	30,786	207	1,043	175	197,238
Private Debt	59,286	11,050	74	374	63	70,847
Private Equity	98,918	18,404	124	623	105	118,174
Private Real Estate	24,535	4,568	31	155	26	29,315
Private Infrastructure	24,692	4,597	31	156	26	29,502
Strategic Partnerships ³	468	87	1	3		559
Total Investment Manager Fees	<u>386,714</u>	<u>72,062</u>	<u>483</u>	<u>2,442</u>	<u>410</u>	<u>462,111</u>
Bank Fees and Investment Expenses ⁴	<u>11,972</u>	<u>2,217</u>	<u>15</u>	<u>75</u>	<u>13</u>	<u>14,292</u>
Total Investment Expenses	<u><u>398,686</u></u>	<u><u>74,279</u></u>	<u><u>498</u></u>	<u><u>2,517</u></u>	<u><u>423</u></u>	<u><u>476,403</u></u>
Securities Lending Expenses:						
Borrower Rebates	\$ 178	\$ 33	\$ 1	\$ 1	\$ -	\$ 213
Total Securities Lending Expenses	<u><u>\$ 178</u></u>	<u><u>\$ 33</u></u>	<u><u>\$ 1</u></u>	<u><u>\$ 1</u></u>	<u><u>\$ -</u></u>	<u><u>\$ 213</u></u>

¹ All investment manager fees, whether directly invoiced (\$12,172) or deducted from the fund on a net basis (\$449,939), 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 This asset class includes both Fixed Rate and Floating Rate Investment Grade Bonds.

³ Represents management and other fees at the Strategic Partnership level, not fees at the underlying investment level, included in each applicable asset class.

⁴ Includes miscellaneous investment expenses, commissions on futures, bank fees and RSIC administrative expenses.

**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL
STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

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

We have audited, in accordance with the 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, the financial statements of the South Carolina Retirement Systems (the Systems) as administered by the South Carolina Public Employee Benefit Authority, included as fiduciary funds of the State of South Carolina, as of and for the year ended June 30, 2023, and the related notes to the financial statements, and have issued our report thereon dated October 13, 2023.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Systems' internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Systems' internal control. Accordingly, we do not express an opinion on the effectiveness of the Systems' internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.


Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that have not been identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Systems' financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Crowe LLP". The letters are cursive and slightly slanted.

Crowe LLP

Dallas, Texas
October 13, 2023