Employees' Retirement
System of Georgia

Annual Comprehensive Financial Report

Fiscal Year Ended June 30, 2022

A component unit of the State of Georgia

Georgia's Waterfalls

Tallulah Gorge State Park

2022

ERSGA
Employees' Retirement System of Georgia
Serving those who serve Georgia

Tallulah Gorge

Tallulah Gorge State Park: Various trails with different levels of difficulty

Tallulah Gorge is in Rabun County in Northeast Georgia, at the Georgia and North Carolina border.

Five spectacular waterfalls cascade through Tallulah Gorge: L’Eau d’Or, Tempesta, Hurricane, Oceana, and Bridal Veil (Sliding Rock). All waterfalls can be viewed from the overlooks along the rim of the gorge, with the exception of Bridal Veil.

Two miles long and nearly 1,000 feet deep, Tallulah Gorge is one of the most dramatic canyons in the eastern United States. There are more than 20 miles of trails ranging from easy to heart-pumping. The trails lead to rim overlooks, waterfalls, Tallulah Lake, and a suspension bridge swaying 80 feet above the views of the river and waterfall below.

Learn more at exploregeorgia.org

Our Mission

Our mission is to be the guardian of the State of Georgia's retirement plans and promote a dignified retirement for the members, retirees, and their beneficiaries.

Our vision is to demonstrate an unwavering commitment to delivering accurate and timely retirement benefits utilizing a knowledgeable staff and state-of-the-art technology to best serve the retirement needs of current and future members.

Our Values

Our Core Values are:

Integrity

Customer Service

Operational Excellence

Continuous Improvement and Innovation

ERSGA
Employees' Retirement System of Georgia
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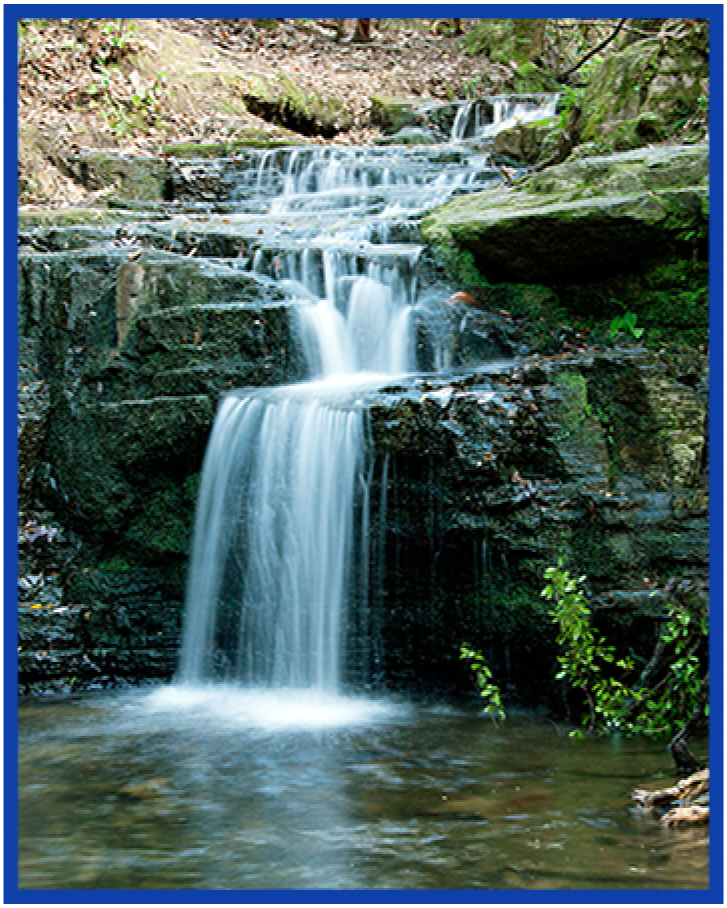
Employees' Retirement
System of Georgia

Annual Comprehensive Financial Report

Fiscal Year Ended June 30, 2022
A component unit of the State of Georgia

Serving Those Who Serve Georgia



Cascade Falls

James A. Potvin
Executive Director

ERSGA
Employees' Retirement System of Georgia
Serving those who serve Georgia

Cascade Falls

Pine Mountain Trail to Cascade Falls: Moderate, 4.5 miles

Cascade Falls is located in Harris County, just northeast of Columbus.

The Pine Mountain trail wanders through a rocky forest in the Franklin D. Roosevelt State Park. The trail features a tunnel of mountain laurel and joins a creek after 1.25 miles. The trail then passes several small waterfalls and ends at Cascade Falls.

The best time to hike the Pine Mountain trail is from April through October. Four-legged companions are welcome on the trail, but must be leashed at all times.

Learn more at atlantatrails.com

Table of Contents

Introductory Section

Boards of Trustees	4
Letter of Transmittal	5
Certificate of Achievement for Excellence in Financial Reporting	9
PPCC Recognition Award for Funding	10
Administrative Staff and Organization	11
Organizational Chart	12

Financial Section

Independent Auditors' Report	15
Management's Discussion and Analysis (Unaudited)	18
Basic Financial Statements:	
Combining Statement of Fiduciary Net Position as of June 30, 2022	26
Defined Benefit Plans-Combining Statement of Fiduciary Net Position as of June 30, 2022	27
Combining Statement of Changes in Fiduciary Net Position for the Year Ended June 30, 2022	28
Defined Benefit Plans-Combining Statement of Changes in Fiduciary Net Position for the Year Ended June 30, 2022	29
Statement of Net Position-State Employees' Assurance Department Active Members Fund	30
Statement of Revenues, Expenses, and Changes in Net Position-State Employees' Assurance Department Active Members Fund	31
Statement of Cash Flows-State Employees' Assurance Department Active Members Fund	32
Notes to Financial Statements	33
Required Supplementary Information (Unaudited):	
Defined Benefit Plans:	
Schedule of Employers' and Nonemployer Contributions	67
Schedules of Employers' and Nonemployer Net Pension/OPEB Liability (Asset) and Related Ratios	69
Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset)	71
Schedule of Investment Returns	77
Schedules of the System's Proportionate Share of the Net OPEB Liability (Asset)	78
Schedules of the System's Contributions to OPEB Plans	79
Notes to Required Supplementary Information (Unaudited)	80
Additional Information:	
Schedule of Administrative Expenses - Contributions and Expenses	86
Schedule of Investment Expenses	87

Investment Section

Investment Overview	90
Pooled Investment Fund/Rates of Return	91
Asset Allocation at Fair Value/Investment Summary	92
Schedule of Fees and Commissions	93
Twenty Largest Equity Holdings	94
Top 10 Fixed Income Holdings	95

Actuarial Section

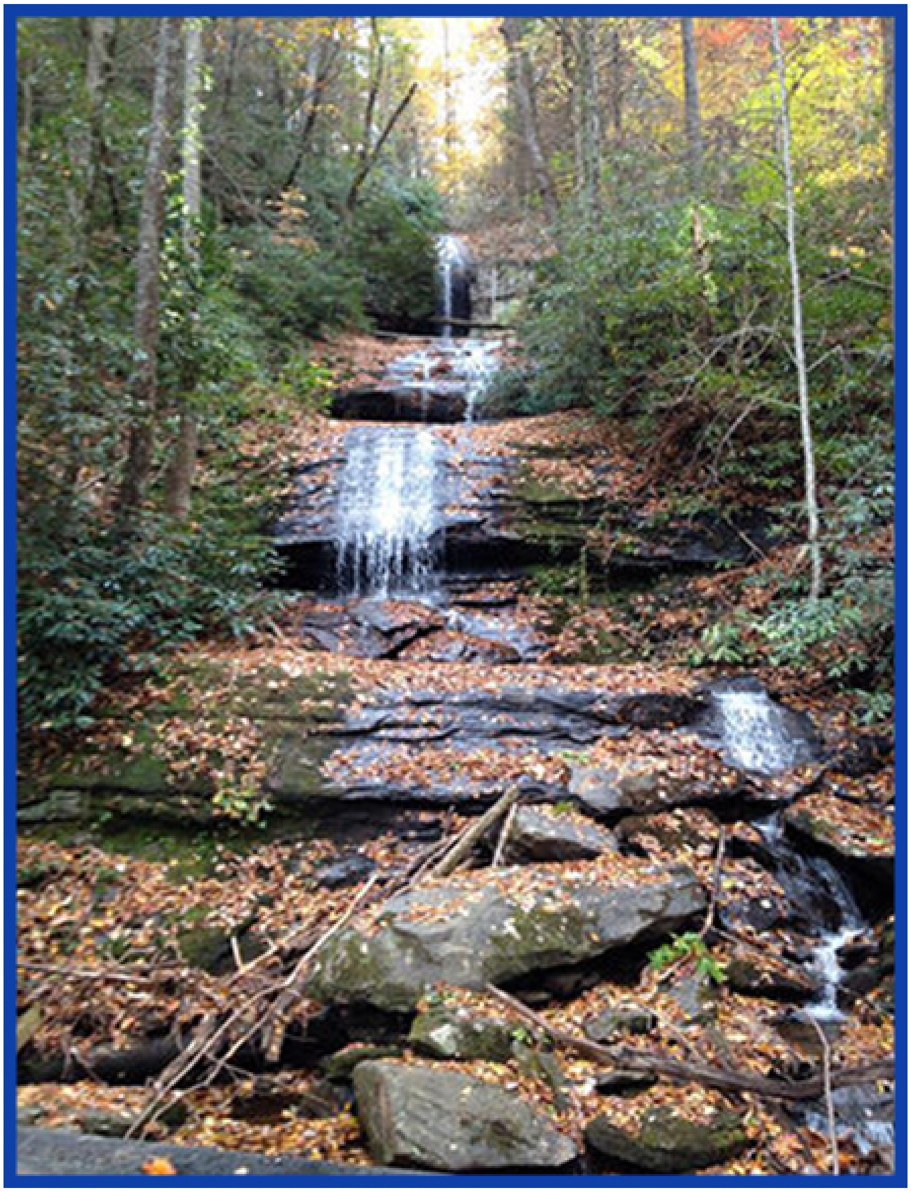
Actuary's Certification Letters	98
Summary of Plan Provisions	110
Summary of Actuarial Assumptions	112
Active Members	124
Member and Employer Contribution Rates	126
Defined Benefit Plans-Schedules of Funding Progress	128
Schedule of Retirees Added to and Removed from Rolls	130
Analysis of Change in Unfunded Accrued Liability (UAL)	132
Solvency Test Results	135

Statistical Section

Introduction	139
Additions by Source-Contribution/Investment Income	140
Deductions by Type	143
Changes in Fiduciary Net Position	147
Number of Retirees	149
Average Monthly Payments to Retirees	150
Annual Benefit	151
Withdrawal Statistics	152
Average Monthly Benefit Payment for New Retirees	153
Retired Members by Retirement Type	158
Retired Members by Optional Form of Benefit	160
Principal Participating Employers	164
Schedule of Revenue and Expenses-State Employees' Assurance Department Active Members Fund	166
Schedule of Membership-State Employees' Assurance Department Active Members Fund	167
Statistical Data at June 30, 2022	168

Introductory Section

Georgia's Waterfalls



DeSoto Falls

Employees' Retirement System of Georgia

Serving those who serve Georgia

DeSoto Falls

DeSoto Falls Trail: Moderate, 2 miles

DeSoto Falls is a 30-minute drive north from the charming town of Dahlonega.

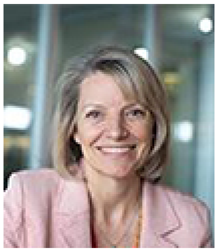
The 2-mile out-and-back DeSoto Falls Trail packs a lot of punch in a short distance, crossing a beautiful rhododendron and mossy boulder-filled creek. There are two waterfalls to choose from, each trail through a shady forest. This hike's relatively short, kid-friendly distance and moderate elevation change make it one of North Georgia's most popular waterfall hikes.

Learn more at atlantatrails.com

Boards of Trustees

as of September 30, 2022

Employees' Retirement System, Legislative Retirement System, Georgia Defined Contribution Plan, and Georgia Military Pension Fund



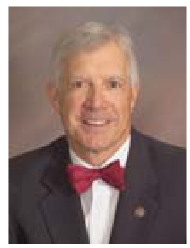
Eli P. Niepoky
Chair

Homer Bryson
Vice-Chair

Rebecca Sullivan

Steve McCoy

Greg S. Griffin

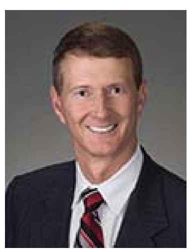


Frank F. Thach, Jr.

Rhonda Wilson

Public School Employee Retirement System*

Michael Lowe



Richard Taylor

State Employees' Assurance Department**

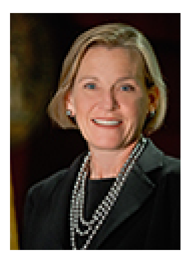
Mark Butler

Vacant

Georgia Judicial Retirement System*

Ellen S. Golden

Ron Mullins



Ann Harris

*The PSERS and GJRS boards are comprised of the members of the ERS board and additional members shown under each plan.

**SEAD — ERS Board Members Eli P. Niepoky, Greg S. Griffin, Steve McCoy, Rebecca Sullivan, and Rhonda Wilson serve in addition to the members shown above.

Introductory Section

Letter of Transmittal

Two Northside 75
Atlanta, GA 30318

September 30, 2022

I am pleased to present the Annual Comprehensive Financial Report (ACFR) of the retirement systems and programs administered by the Employees' Retirement System of Georgia (the System) for the fiscal year ended June 30, 2022. The management of the System is responsible for the accuracy, completeness, and fairness of the presentation, including all disclosures. It is to the best of our knowledge and belief that the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the System.

Profile of the System

The System was established in 1949 by an Act of the Georgia General Assembly to provide benefits for all State employees. Plans administered by the System include the Employees' Retirement System (ERS), the Legislative Retirement System (LRS) established in 1979, the Public School Employees Retirement System (PSERS) established in 1969, the Georgia Defined Contribution Plan (GDCP) established in 1992, the Georgia Judicial Retirement System (GJRS) established in 1998, and the Georgia Military Pension Fund (GMPF) established in 2002. In addition, the System is responsible for administering a Group Term Life Insurance Plan (SEAD), the 457 Plan established in 1974, and the 401(k) Plan established in 1994. A summary of each plan can be found on pages 33 through 43 of this report. The investments of all plans are pooled together into one fund except for the three defined contribution (DC) plans, which are maintained individually.

The ERS, LRS, GDCP, GMPF, 401(k), and 457 plans are governed by a 7-member Board of Trustees (Board) made up of 3 ex-officio members, 1 governor-appointed member, and 3 Board-appointed members. PSERS has the same Board as ERS with 2 additional governor-appointed members. GJRS has the same Board as ERS with 3 additional governor-appointed members.

As of June 30, 2022, the System's defined benefit (DB) plans served a total of 98,934 active members and 76,608 retirees/beneficiaries from 678 employers around the state. There were 74,098 participants in the 401(k) plan with a total investment balance of $1.5 billion. The 457 plan had 11,718 participants with a total investment balance of $661.2 million. There are 461 participating employers from around the state in the 457 and 401(k) plans.

Legislation

The Georgia General Assembly, which adjourned April 4, 2022, passed several bills directly affecting the Employees' Retirement System (ERS) and other defined benefit and defined contribution programs which it administers.

Act 790 (SB 343) makes two major changes to the ERS. The first amends forfeited leave provisions so that for retirements prior to July 1, 2022, the last reporting employer before the member's retirement will continue to be responsible for contributing the financial cost associated with such leave. Non-legislative changes made and adopted to the ERS Funding Policy by the Board of Trustees will provide that for all retirements after July 1, 2022, such cost and liabilities will be factored into the actuarial assumptions for ERS and paid as part of the Actuarially Determined Employer Contribution (ADEC).

In addition, SB 343 updates the current 401(k) employer matching structure for all ERS members who first or again became members on or after July 1, 2009. Currently, such members receive a monthly three percent (3%) employer contribution match for contributing five percent (5%), whereas the legislation increases the employer match to a one-for-one basis up to a maximum of five percent (5%) of the employee's pay. This bill also increases the employer match one-half of one percent (0.5%) for each year of Creditable Service after five (5) obtained by eligible members up to a maximum of nine percent (9%) employer contribution for those members with more than 13 years of Creditable Service and who contribute at least five percent (5%) to their 401(k). This is a nonfiscal retirement bill having no financial impact on the system, and became effective July 1, 2022.

(continued)

The Legislative Retirement System (LRS) also saw major legislative changes with the passing and signing of Act 747 (HB 824). This legislation increases the benefit multiplier from $36 to $50, but only for those LRS members who were contributing on or who first or again become LRS members after January 1, 2022. It also amends the employee contribution structure on and after July 1, 2022 so that instead of paying eight and one-half of a percent (8.5%) of their monthly salary, members will instead pay $165 each month. In addition to the general benefit increase and contribution changes, this legislation provides for additional benefits and increased contributions for service as the Speaker of the Georgia House of Representatives. Individuals with "presiding creditable service" over the House of Representatives will be required to contribute an additional $660 on top of the $165 for each month of applicable service, and will in turn receive an increased benefit of $250 ($200 plus regular $50) for each year of presiding creditable service.

The Fiscal Year 2023 Budget (Act 865, HB 911) included funds to increase the benefit multiplier for Public School Employees Retirement System (PSERS) retirees and beneficiaries from $15.75 to $16.00. Such increase became effective July 1, 2022.

Summary of Financial Information

The management of the System is charged with the responsibility of maintaining a sound system of internal accounting controls. The objectives of such a system are to provide management with reasonable assurance that assets are safeguarded against loss from unauthorized use or disposition, that transactions are executed in accordance with management's authorizations, and that they are recorded properly to permit the preparation of financial statements in accordance with generally accepted accounting principles. The concept of reasonable assurance recognizes that first, the cost of a control should not exceed the benefits likely to be derived, and second, the evaluation of the cost and benefits requires estimates and judgments by management.

Even though there are inherent limitations in any system of internal control, the management of the System makes every effort to ensure that through systematic reporting and internal reviews, error or fraud would be quickly detected and corrected.

Please refer to the Management's Discussion and Analysis starting on page 18 of this report for an overview of the financial status of the System, including a summary of the System's Fiduciary Net Position, Changes in Fiduciary Net Position, and Asset Allocations.

For fiscal year 2022, the pooled investment fund generated a time-weighted rate of return of (11.71)%. The fund continues to invest in a mix of high-quality bonds and stocks which allows the System to participate in rising markets while controlling the downside risks. This has proven to be a successful strategy for other markets and for the System. For further information on investments of the pooled fund, please refer to the Investment Section on pages 88 through 95 of this report.

The objective of the System's pension trust funds is to meet long-term benefit promises through contributions that remain approximately level as a percent of member payroll over time while maintaining an actuarially sound system. Historical information relating to the progress in meeting this objective is presented on pages 128 and 129. The latest actuarial valuations as of June 30, 2021 showed the funded ratio of four of the five of the defined benefit plans increasing. The following table shows the change in funding percentage for each of the pension systems:

	FY2020	FY2021
ERS	73.8 %	71.6 %
PSERS	83.1 %	86.3 %
LRS	135.7 %	143.5 %
GJRS	106.4 %	109.0 %
GMPF	57.8 %	62.9 %

Further information regarding the funding condition of the pension plans can be found in the Actuarial Section of this report, beginning on page 96.

Excellence in Financial Reporting

For the eleventh consecutive year, the Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Employees' Retirement System of Georgia for its annual comprehensive financial report for the fiscal year ended June 30, 2021. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current annual comprehensive financial report continues to meet the Certificate of Achievement Program's requirements, and we are

(continued)

submitting it to the GFOA to determine its eligibility for another certificate.

Initiatives

Pandemic Impact

We attempted to begin our return to the office in the summer of 2021; however, with subsequent spikes in the number of COVID cases we did not get beyond 1 day per week. This was not effective in producing the desired result (namely, more face to face interaction among our staff) because there were too few people in the office on any given day. So we resumed 100% teleworking over the winter.

Beginning in mid-March, we returned to the office on a two days per week schedule. We anticipate that this schedule, with some possible fine-tuning, will be our permanent arrangement going forward. Pre-pandemic, we required three office days per week. Overall we feel better about our employees' ability to handle a disaster situation, should one arise in the future that requires us to be out of the office on short notice. And while some of our members are looking forward to seeing us in person again, we have done a good job of improving our ability to meet most of their needs remotely if necessary.

Technology

The IT team continues to be heavily focused on cybersecurity and recently completed a third party security maturity assessment. ERS is developing a security roadmap and project list for moving our security posture forward. One of the major initiatives to come from this exercise is to contract with LexisNexis Risk Solutions for improved identity and authentication services for onboarding portal users. Other initiatives like physical security review, Multi-Factor, and single sign-on projects or technology reviews are on the roadmap.

ERS is also in the final stages of a major upgrade to our on-premises SharePoint environment. This project involved significant infrastructure buildout and end user training on the new platform. Other significant infrastructure changes include upgraded firewalls and deployment of new firewalls at both our primary and Disaster Recovery (DR) facilities.

The IT group is also leading an effort to refresh our Business Impact Analysis (BIA), Business Continuity Plan (BCP), and Disaster Recovery Plan. Sessions to document and capture major functional business processes are underway and will inform the BIA, BCP, and DR Plan.

Communications

Visual communication goals have been highly prioritized, with six Retirement Minute plan videos being produced, each featuring unique characters. These videos provide "snack-sized" bites of education to highlight the important plan points. The overarching goal is for every ERSGA plan to have a unique Retirement Minute overview video. Subtitled versions are also available. Virtual presentations were provided to state employees on financial literacy and comprehending plan benefits, with an emphasis on the importance of maximizing the full employer match. We also conducted numerous training sessions throughout the year for our employers regarding ongoing processing and implementation of new processes and legislation.

Other Initiatives

Significant legislative implementations included receiving employer contributions for all rehired retirees, new functionality to allow us to receive periodic payments for service purchases, and functionality related to our Supplemental Lifetime Guaranteed Income provision.

Partnerships with fellow State agencies included a video interview featuring the Department of Administrative Services (DOAS) Commissioner and the ERSGA Executive Director discussing the new ERSGA legislative updates to help Employers understand the changes. We also began a comprehensive redesign and update of our secure Employer Portal on our web site.

National Retirement Savings Month (NRSM) took place throughout October. This year's month-long efforts included highly targeted email communications, the promotion of the new plan videos, and a fun, saving-themed interactive crossword puzzle on our website.

Our Information Technology Division took the lead on conducting Business Impact Analysis interviews with the other divisions as we prepare to update our business continuity documentation. They also contracted with an outside partner to conduct an independent overall security posture assessment. This project provided ERSGA with an excellent position from which to begin work on our multi-year security roadmap.

Other Information

Independent Audit

The Board of Trustees requires an annual audit of the financial statements of the System by independent, certified public accountants. The accounting firm of KPMG LLP was selected by the Board. The independent auditors'

(continued)

report on the fiduciary activities and the related proprietary activity is included in the Financial Section of this report.

Acknowledgments

This report reflects the combined effort of our staff under the Board's leadership. Copies of this report, along with other valuable plan information, can be downloaded from the System's website.

I would like to express my sincere thanks to the Boards of Trustees for their leadership and support. Many thanks are also extended to the offices of the Governor, Lieutenant Governor, members of the House and Senate Retirement Committees and their staff, members of the House and Senate, and the department officials whose support and assistance have helped ERSGA accomplish its mission over the years.

Respectfully submitted,

James A. Potvin, Executive Director
Employees' Retirement System of Georgia

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Employees' Retirement System of Georgia

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2021

Christopher P. Morrill

Executive Director/CEO

Public Pension Coordinating Council

Recognition Award for Funding
2021

Presented to

Employees' Retirement System of Georgia

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

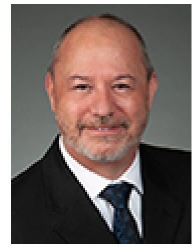
Presented by the Public Pension Coordinating Council, a confederation of

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

Alan H. Winkle

Alan H. Winkle
Program Administrator

Administrative Staff and Organization

			
James A. Potvin	**Angie Surface**	**Charles W. Cary, Jr.**	**Eddy A. Hicks**
Executive Director	**Deputy Director**	**CIO - Investment Services**	**Controller**

						
Chris Hackett	Nicole McGlathery	Susan Anderson	Carolyn Kaplan	Kelly Moody	Danielle Templeton	Flavia Peynado
Director Information Technology, CIO	Director Human Resources	Director Member Services, COO	Director Financial Mgmt	Director Legislative Affairs	Director Communications	Director Quality Assurance

Consulting Services

Cavanaugh Macdonald Consulting, LLC - Actuary
KPMG LLP - Auditor
Alight Solutions - Defined Contribution
Consultant and Administrator

Investment Advisors*

Albritton Capital Management
Barrow, Hanley, Mewhinney & Strauss
Cooke & Bieler
Fisher Investments
Mondrian Investment Partners Limited
Sands Capital Management
WCM Investment Management

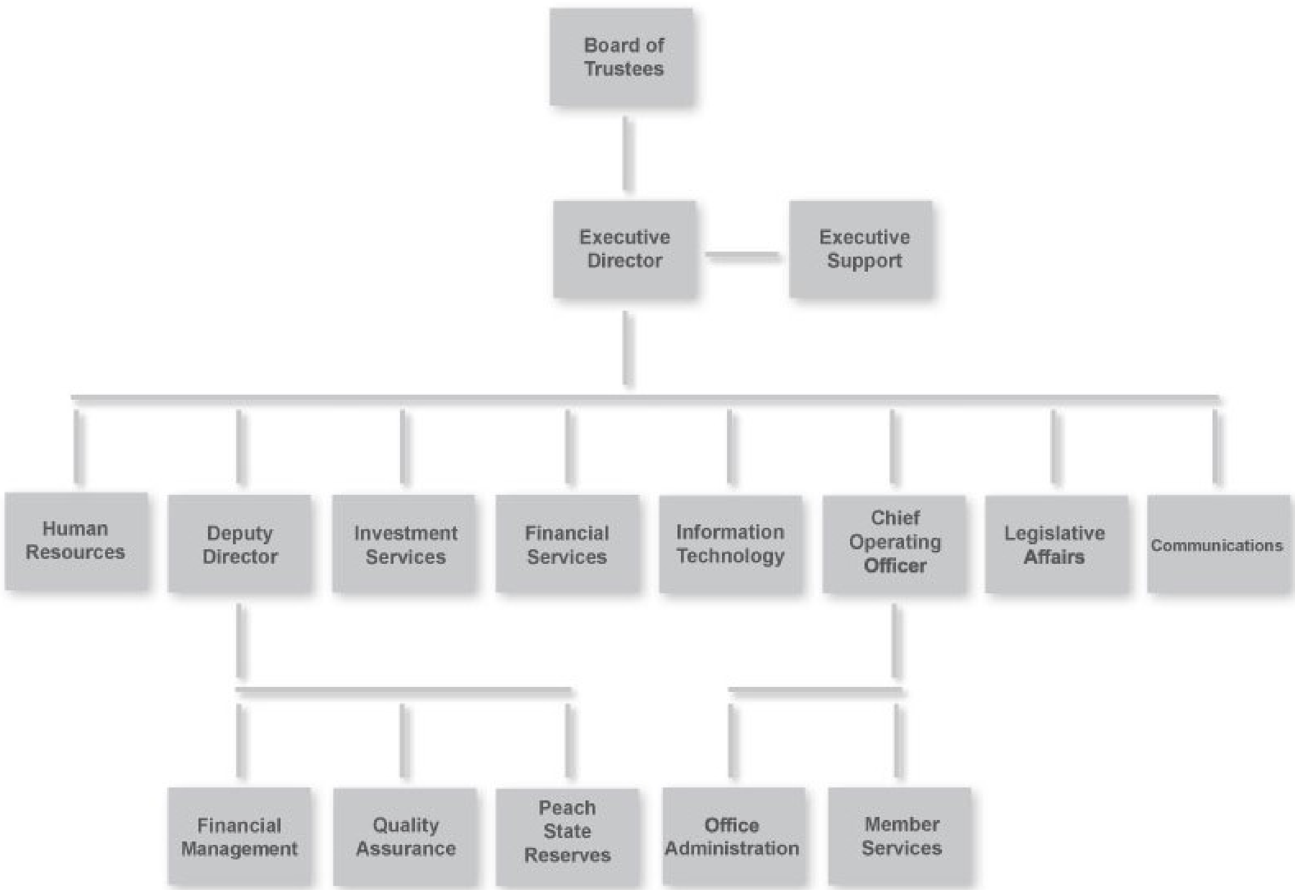
Medical Advisors

Harold E. Sours, M.D., Atlanta, GA
G. Lee Cross, M.D., Atlanta, GA
Pedro F. Garcia, M.D., Atlanta, GA
H. Rudolph Warren, M.D., Dunwoody, GA
Quinton Pirkle, M.D., Atlanta, GA
Joseph S. Wilkes, M.D., Sandy Springs, GA
Howard A. McMahan, M.D., Marietta, GA
Joseph W. Stubbs, M.D., Albany, GA

*See page 93 in the Investment Section for a summary of fees paid to investment advisors

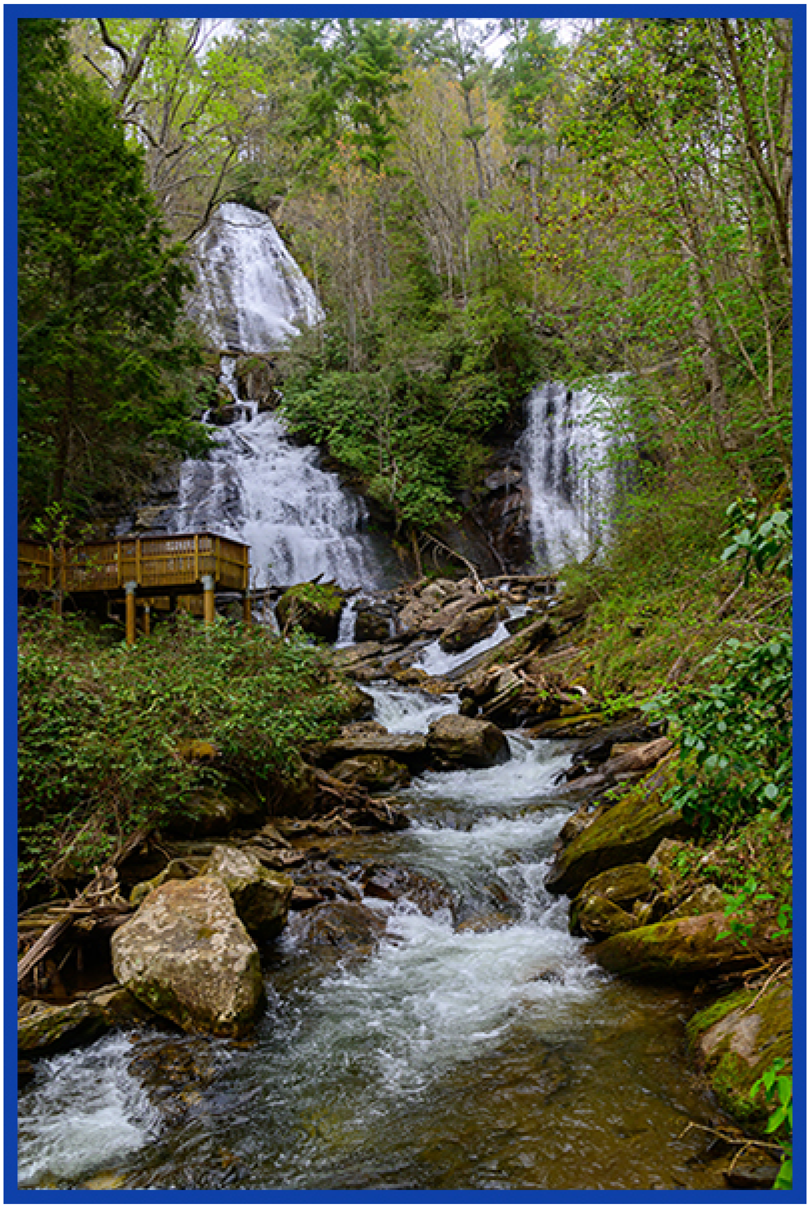
Introductory Section

Organizational Chart



Financial Section

Georgia's Waterfalls



Anna Ruby Falls

ERSGA
Employees' Retirement System of Georgia
Serving those who serve Georgia

Anna Ruby Falls

Anna Ruby Falls Trail: 0.9 miles, easy

Anna Ruby Falls is a short distance from the festive town of Helen, Georgia.

Anna Ruby Falls is a pair of breathtaking waterfalls, cascading in tandem through a scenic slice of North Georgia forest. The twin waterfalls spill from a towering cliff in wispy white tendrils before splashing and pooling over mossy boulders. It’s a great North Georgia outdoor destination in any season.

The hike is a relatively easy one, and though the outbound trek is mostly uphill, the trail is paved and just under a half mile. The trail is kid-friendly, stroller-friendly, and dog-friendly. While the twin waterfalls are clearly the main attraction, the trail itself is a beautiful one. The trail climbs to the tumbling waterfall alongside a waterfall-filled creek, catching views of the spilling and splashing creek through the forest.

With abundant natural beauty, a rare double waterfall, and relatively easy access, this is one of North Georgia’s most popular trails, and well worth a visit.

Learn more at atlantatrails.com

KPMG LLP
Suite 2000
303 Peachtree Street, NE
Atlanta, GA 30308-3210

Independent Auditors' Report

The Board of Trustees
Employees' Retirement System of Georgia:

Report on the Audit of the Financial Statements

Opinions
We have audited the financial statements of the fiduciary activities and the business-type activities of the Employees' Retirement System of Georgia (the System), a component unit of the State of Georgia, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the System's 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 respective financial position of the fiduciary activities and business-type activities of the System, as of June 30, 2022, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with U.S. generally accepted accounting principles.

Basis for Opinions
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*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System 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 opinions.

Responsibilities of Management for the Financial Statements
Management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles, 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 System's 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.

Auditors' 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 auditors' report that includes our opinions. 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.

(continued)

- 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 System's 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 System's 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.

Required Supplementary Information
U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 18-25 and the schedules of employers' and nonemployer contributions – defined benefit plans, schedules of employers' and nonemployer net pension/OPEB liability (asset) and related ratios – defined benefit plans, schedules of changes in employers' and nonemployer net pension/OPEB liability(asset) – defined benefit plans, schedule of investment returns, schedules of the System's proportionate share of the net OPEB liability(asset), the schedules of the System's contributions to OPEB plans, and the notes to required supplementary information on pages 67-85 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 GAAS, 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 was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The schedule of administrative expenses – contributions and expenses and schedule of investment expenses are presented for purposes of additional analysis and are 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 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 GAAS. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information
Management is responsible for the other information included in the annual comprehensive financial report. The other information comprises the introductory, investment, actuarial, and statistical sections but does not include the basic financial statements and our auditors' report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated September 30, 2022 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

KPMG LLP

Atlanta, Georgia

September 30, 2022

Management's Discussion and Analysis (Unaudited)

June 30, 2022

This section provides a discussion and analysis of the financial performance of the Employees' Retirement System of Georgia (the System) for the year ended June 30, 2022. The discussion and analysis of the System's financial performance is within the context of the accompanying basic financial statements, notes to the financial statements, required supplementary schedules, and additional information following this section.

The System is responsible for administering a cost-sharing, multiple-employer defined benefit pension plan for various employer agencies of Georgia, along with six other defined benefit pension plans, a defined benefit OPEB plan, three defined contribution plans, and a custodial fund, all of which comprise the fiduciary funds. The System is also responsible for administering an enterprise fund, which comprises the proprietary fund.

The defined benefit pension plans include:

- Employees' Retirement System (ERS)
- Public School Employees Retirement System (PSERS)
- Legislative Retirement System (LRS)
- Georgia Judicial Retirement System (GJRS)
- Georgia Military Pension Fund (GMPF)
- Superior Court Judges Retirement Fund (SCJRF)
- District Attorneys Retirement Fund (DARF)

The defined benefit OPEB plan consists of the State Employees' Assurance Department Retired and Vested Inactive Members Trust Fund (SEAD-OPEB).

The defined contribution retirement plans include:

- Georgia Defined Contribution Plan (GDCP)
- State of Georgia Employees' Qualified Trust Deferred Compensation Plan (401(k) Plan)
- State of Georgia Employees' Deferred Compensation Plan (457 Plan)

The custodial fund consists of the Survivors Benefit Fund (SBF).

The enterprise fund consists of the State Employees' Assurance Department Active Members Fund (SEAD-Active).

Overview of Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The System administers two categories of funds: fiduciary funds and a proprietary fund. Information related to the financial statements of the funds is presented in the notes to the financial statements.

Fiduciary funds are used to account for resources held for the benefit of parties outside of the System. The primary focus of the System's fiduciary funds is the accumulation of resources for and the payment of pension and OPEB benefits. The System maintains four types of fiduciary funds: (1) defined benefit pension trust funds which are used to report resources held in trust for pensions for retirees and beneficiaries covered by ERS, PSERS, LRS, GJRS, GMPF, SCJRF, and DARF (2) a defined benefit OPEB trust fund, which is used to report resources held in trust for other postemployment benefits of retirees and beneficiaries covered by SEAD-OPEB (3) defined contribution pension trust funds, which are used to accumulate contributions and earnings in the accounts of participants covered by GDCP, the 401(k) Plan, and the 457 Plan, and (4) a custodial fund, which is used to report resources held by the SBF in a custodial capacity for other plans.

Proprietary funds, which include enterprise and internal services funds, are used to account for the System's activities that are similar to private-sector businesses. The System maintains one proprietary fund, which is an enterprise fund,

(continued)

SEAD-Active. The primary focus of the System's enterprise fund is the accumulation of resources for, and payment of, group term life insurance benefits for active members of ERS, LRS, and GJRS covered by SEAD-Active.

The basic financial statements comprise statements for both fiduciary and proprietary funds. The fiduciary fund financial statements include (1) *Combining Statement of Fiduciary Net Position* (2) *Defined Benefit Plans – Combining Statement of Fiduciary Net Position* (3) *Combining Statement of Changes in Fiduciary Net Position*, and (4) *Defined Benefit Plans – Combining Statement of Changes in Fiduciary Net Position*. The proprietary fund financial statements include (1) *Statement of Net Position* (2) *Statement of Revenues, Expenses, and Changes in Net Position* and (3) *Statement of Cash Flows.*

In addition, the System presents six types of required supplementary schedules, which provide historical trend information about the plan. Four of the schedules are presented from the perspective of the System reporting as the plan and include (1) *Schedules of Employers' and Nonemployer Contributions* (2) *Schedules of Employers' and Nonemployer Net Pension/OPEB Liability (Asset) and Related Ratios* (3) *Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset)* and (4) *Schedule of Investment Returns*. Two of the schedules are presented from the perspective of the System reporting as the employer for its employees who participate in the SEAD-OPEB and the Georgia State Employees Postemployment Benefit Fund (State OPEB Fund) and include the (5) *Schedules of the System's Proportionate Share of the Net OPEB Liability (Asset)* and (6) *Schedules of the System's Contributions to OPEB Plans*. The System also includes in this report additional information to supplement the financial statements.

The System prepares its financial statements on the accrual basis of accounting in accordance with U.S. generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board (GASB). These statements provide information about the System's overall financial status.

Financial Highlights

The highlights of the fiduciary funds of the System are as follows:

- The net position of the fiduciary funds decreased by $3.5 billion, or 15.4%, from $22.8 billion at June 30, 2021 to $19.3 billion at June 30, 2022. The decrease in net position was primarily due to negative equity and bond market returns.

- For the year ended June 30, 2022, the total additions to net position resulted in a decrease of $1.6 billion, compared to $6.1 billion increase for the year ended June 30, 2021. For the year ended June 30, 2022, the additions consisted of employer, nonemployer contributing entities (nonemployer), and member contributions totaling $950.5 million, insurance premiums of $2.6 million, net investment loss of $2.6 billion, and participant fees of $629.0 thousand.

- Net investment loss of $2.6 billion in 2022 (comprising interest and dividend income, the change in fair value of investments, and other, reduced by investment expenses) represents a decrease of $7.8 billion, or 149.6%, compared to the net investment income of $5.2 billion for the year ended June 30, 2021. The change in net investment income was primarily due to equity and bond market losses in 2022 compared to equity market gains in 2021.

- The total deductions from net position increased by $82.0 million to $1.886 billion for the year ended June 30, 2022 compared to $1.804 billion for the year ended June 30, 2021. For the year ended June 30, 2022, the increase in deductions primarily consisted of an increase in benefit payments.

The highlights of the proprietary fund of the System are as follows:

- The net position of the proprietary fund decreased by $50.9 million to $357.5 million at June 30, 2022 compared to $408.3 million at June 30, 2021. The decrease in net position was primarily due to negative equity and bond market returns.

(continued)

- For the year ended June 30, 2022, total operating loss was $2.9 million compared to $4.4 million for the year ended June 30, 2021. The decrease relates primarily to an decrease in the number of active members who received death benefits during the year.
- Net investment income allocated from the pooled investment fund of $(47.9) million in 2022 represents a decrease of $141.3 million, or 151.3%, compared to net investment income allocated from the pooled investment fund of $93.4 million for the year ended June 30, 2021. The change in investment income allocated from the pooled investment fund was primarily due to equity and bond market losses in 2022 compared to equity market gains in 2021.

Description of the Financial Statements

Fiduciary Funds

The *Combining Statement of Fiduciary Net Position* is the statement of financial position presenting information that includes the fiduciary funds' assets and liabilities, with the balance representing the Net Position Restricted for Pensions and OPEB and SBF. The investments of the funds in this statement are presented at fair value. This statement is presented on page 26.

The *Combining Statement of Changes in Fiduciary Net Position* reports how the fiduciary funds' net position changed during the fiscal year. The additions include contributions to the retirement plans from employers, nonemployer, and members; group term life insurance premiums; participant fees; and net investment income, which includes interest and dividends and the net increase in the fair value of investments, net of investment expenses. The deductions include benefit payments, life insurance death benefit payments, refunds of member contributions and interest, and administrative expenses. This statement is presented on page 28.

The *Defined Benefit Plans' Combining Statement of Fiduciary Net Position* and the *Combining Statement of Changes in Fiduciary Net Position* present the financial position and changes in financial position for each of the defined benefit plans administered by the System. These statements are on pages 27 and 29, respectively.

Proprietary Fund

The *Statement of Net Position* is the statement of financial position presenting information that includes the assets and liabilities, with the balance representing the net position. This statement is presented on page 30.

The *Statement of Revenues, Expenses, and Changes in Net Position* distinguishes operating revenues and expenses from nonoperating items. Principal operating revenues result from insurance premiums from members, while operating expenses result from death benefit payments and administrative expenses. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses. This statement is presented on page 31.

The *Statement of Cash Flows* provides information about cash receipts and cash payments during the year. When used in conjunction with related disclosures and information in the other financial statements, the statement provides relevant information about the plan's ability to generate future net cash flows, the plan's ability to meet its obligations as they come due, and presents the reasons for differences between operating income and associated cash receipts and payments. This statement is presented on page 32.

Notes to Financial Statements are presented to provide the information necessary for a full understanding of the financial statements. The notes to the financial statements begin on page 33.

(continued)

Required Supplementary Information begins on page 67. The required schedules are discussed as follows:

- The *Schedule of Employers' and Nonemployer Contributions* presents historical trend information for the last 10 consecutive fiscal years about the required contributions and the percent of required contributions actually contributed.

- The *Schedule of Employers' and Nonemployer Net Pension/OPEB Liability and Related Ratios* presents the components of the net pension/OPEB liability as of the fiscal year end and the fiduciary net position as a percentage of the total pension/OPEB liability as of that date. This trend information will be accumulated to display a 10-year presentation.

- The *Schedule of Changes in Employers' and Nonemployer Net Pension/OPEB Liability* presents total net pension/OPEB liability and is measured as total pension/OPEB liability less the amount of the fiduciary net position. This trend information will be accumulated to display a 10-year presentation.

- The *Schedule of Investment Returns* presents historical trend information about the annual money-weighted rate of return on plan investments, net of plan investment expense. This trend information will be accumulated to display a 10-year presentation.

- The *Schedule of the System's Proportionate Share of the Net OPEB Liability* presents historical trend information about the System's proportionate share of the net OPEB liability (asset) for its employees who participate in the SEAD-OPEB plan and the State OPEB Fund. This trend information will be accumulated to display a 10-year presentation.

- The *Schedule of the System's Contributions to OPEB Plans* presents historical trend information about the System's contributions for its employees who participate in the SEAD-OPEB plan and the State OPEB Fund. This trend information will be accumulated to display a 10-year presentation.

Three of the required schedules above, the *Schedules of Employers' and Nonemployer Contributions,* the *Schedules of Employers' and Nonemployer Net Pension/OPEB Liability and Related Ratios*, and the *Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability* are applicable to five of the defined benefit pension plans (ERS, PSERS, LRS, GJRS, and GMPF) and the defined benefit OPEB plan (SEAD-OPEB).

Notes to Required Supplementary Information are presented to provide the information necessary for a full understanding of the supplementary schedules. The notes to required supplementary information begin on page 80.

Additional information is presented, beginning on page 86, and includes two schedules. The first schedule is the *Schedule of Administrative Expenses – Contributions and Expenses* and presents the expenses incurred in the administration of the plans and funds, and the contributions from each plan and fund to provide for these expenses. The second schedule is the *Schedule of Investment Expenses* and presents the expenses incurred in the management of the System's investments.

(continued)

Financial Analysis of the System

A summary of the System's net position of the fiduciary funds at June 30, 2022 is as follows (dollars in thousands):

		Net position			
		2022	2021	Amount change	Percentage change
Assets:					
Cash, cash equivalents, and receivables	$	297,857	491,693	(193,836)	(39.4)%
Investments		19,412,898	22,790,665	(3,377,767)	(14.8)
Capital assets, net		6,313	6,388	(75)	(1.2)
Net OPEB asset		1,426	602	824	136.9
Total assets		19,718,494	23,289,348	(3,570,854)	(15.3)
Deferred outflows of resources		541	764	(223)	(29.2)
Liabilities:					
Due to brokers, accounts payable, and insurance premiums payable		36,253	31,704	4,549	14.3
Due to other funds/plans and participating systems		357,357	408,125	(50,768)	(12.4)
Net OPEB liability		545	2,156	(1,611)	(74.7)
Total liabilities		394,155	441,985	(47,830)	(10.8)
Deferred inflows of resources		2,709	2,227	482	21.6
Net position	$	19,322,171	22,845,900	(3,523,729)	(15.4)%

A summary of the System's net position of the proprietary fund at June 30, 2022 is as follows (dollars in thousands):

		Net position			
		2022	2021	Amount change	Percentage change
Assets:					
Cash, cash equivalents, and receivables	$	143	244	(101)	(41.4)%
Investments		357,357	408,125	(50,768)	(12.4)
Total assets		357,500	408,369	(50,869)	(12.5)
Liabilities:					
Accounts payable and other		48	46	2	4.3
Net position	$	357,452	408,323	(50,871)	(12.5)%

(continued)

Management's Discussion and Analysis (Unaudited)

The following table presents the investment allocation at June 30, 2022, and 2021:

	2022	2021
Asset allocation at June 30 (in percentages):		
Equities:		
Domestic	46.3 %	47.5 %
International	13.3	15.8
Private equity	3.3	2.3
Domestic obligations:		
U.S. treasuries	19.7	17.6
Corporate and other bonds	5.8	5.3
International obligations:		
Corporates	0.5	0.9
Commingled funds	11.1	10.6
Asset allocation at June 30 (in thousands):		
Equities:		
Domestic	$ 8,991,853	$ 10,817,734
International	2,577,425	3,594,250
Private equity	631,937	525,508
Domestic obligations:		
U.S. treasuries	3,824,614	4,008,672
Corporate and other bonds	1,125,699	1,205,160
International obligations:		
Corporates	93,118	209,045
Mutual funds	7,338	8,969
Commingled funds	2,160,914	2,421,327
	$ 19,412,898	$ 22,790,665

The total investment portfolio decreased by $3.4 billion, or 14.8%, from 2021, which is due to negative equity and bond market returns.

Investment performance is calculated using a time-weighted rate of return using the Daily Valuation Method. The time-weighted rate of return for the fiscal year ended June 30, 2022, was (11.7)% with a (15.3)% return for equities, a 32.8% return for private equity, and a (7.4)% return for fixed income. The five-year annualized rate of return at June 30, 2022, was 7.1% with a 8.7% return for equities, a 25.5% return for private equity, and a 1.2% return for fixed income.

A money-weighted return is weighted by the amount of dollars in the fund at the beginning and end of the performance period. A money-weighted return is highly influenced by the timing of cash flows into and out of the fund and is a better measure of an entity or person who controls the cash flows into or out of the fund. The non-discretionary cash flows for the plan, primarily contributions and benefit payments, have a considerable impact on the money-weighted returns of the portfolio. The money-weighted rate of return for the fiscal year ended June 30, 2022, was (18.7)%, compared to 19.4% for the fiscal year ended June 30, 2021.

(continued)

A summary of the changes in the System's net position of the fiduciary funds for the year ended June 30, 2022 is as follows (dollars in thousands):

	Changes in net position 2022	Changes in net position 2021	Amount change	Percentage change
Additions:				
Employer contributions	$ 679,528	665,792	13,736	2.1 %
Nonemployer contributions	43,181	41,552	1,629	3.9
Member contributions	227,829	210,177	17,652	8.4
Participant fees	629	628	1	0.2
Insurance premiums	2,641	2,817	(176)	(6.2)
Net investment income (loss)	(2,591,381)	5,224,908	(7,816,289)	(149.6)
Other	14	16	(2)	(12.5)
Total additions	(1,637,559)	6,145,890	(7,783,449)	(126.6)
Deductions:				
Benefit payments	1,796,842	1,715,200	81,642	4.8
Refunds	17,921	18,043	(122)	(0.7)
Death benefits	55,053	54,680	373	0.7
Administrative expenses	16,354	16,250	104	0.6
Total deductions	1,886,170	1,804,173	81,997	4.5
Change in net position	$ (3,523,729)	4,341,717	(7,865,446)	(181.2)%

Additions – The System accumulates resources needed to fund benefit payments through contributions and returns on invested funds. In fiscal year 2022, total contributions increased $33.0 million, or 3.6%, primarily due to overall salary increases offset by a reduction in active membership. Net investment income decreased by $7.8 billion, or 149.6%, due primarily to equity and bond market losses in fiscal year 2022 compared to equity market gains in 2021.

Deductions – For fiscal year 2022, total deductions increased $82.0 million, or 4.5%, primarily because of an increase in benefit payments of $81.6 million, or 4.8%, due to an increase in the number of retirees and beneficiaries receiving benefits. Refunds decreased by $122.0 thousand, or 0.7%, which was primarily due to a decrease in the number of refunds processed during 2022. Death benefits increased $373.0 thousand, or 0.7% primarily due to an increase in the number of death claims processed during 2022. Administrative expenses increased by $104.0 thousand, or 0.6%, primarily due to increased contractual services costs.

(continued)

Management's Discussion and Analysis (Unaudited)

A summary of the changes in the System’s net position of the proprietary fund for the year ended June 30, 2022 is as follows (dollars in thousands):

	Changes in net position			
	2022	2021	Amount change	Percentage change
Operating revenue:				
Insurance premiums	$ 479	521	(42)	(8.1) %
Total operating revenue	479	521	(42)	(8.1)
Operating expenses:				
Death benefits	3,333	4,870	(1,537)	(31.6)
Administrative expenses	84	77	7	9.0
Total operating expenses	3,417	4,947	(1,530)	(30.9)
Total operating loss	(2,938)	(4,426)	1,488	33.6
Nonoperating revenue:				
Allocation of investment income from pooled investment fund, net	(47,933)	93,409	(141,342)	(151.3)
Change in net position	$ (50,871)	88,983	(139,854)	(157.2) %

Operating and nonoperating revenue – The proprietary fund accumulates resources needed to fund death benefit payments through premiums earned and returns on invested funds. In fiscal year 2022, total premiums earned decreased $42 thousand, or 8.1%, primarily due to a reduction of active membership offset by overall salary increases. Effective January 1, 2009, the plan was closed to new members. Allocation of investment income from the pooled investment fund, net of related expenses, decreased by $141.3 million, or 151.3%, primarily due to equity and bond market losses in fiscal year 2022 compared to equity market gains in 2021.

Operating expenses – For fiscal year 2022, death benefits decreased by $1.5 million, or 31.6%, which was primarily due to a decrease in the number of death claims processed during 2022. Administrative expenses increased by $7.0 thousand over the prior year, or 9.0%, primarily due to increased contractual services costs.

Requests for Information

This financial report is designed to provide a general overview of the System’s finances for all those with interest in the System’s finances. Questions concerning any of the information provided in this report or requests for additional information should be addressed to Employees’ Retirement System of Georgia, Two Northside 75, Suite 300, Atlanta, GA 30318.

Financial Section

Combining Statement of Fiduciary Net Position

June 30, 2022
(In thousands)

			Defined contribution plans			Custodial fund		
Assets	Defined benefit plans	Pooled Investment Fund	Georgia Defined Contribution Plan	401(k) Plan	457 Plan	Survivors Benefit Fund	Eliminations	Total
Cash and cash equivalents	$ 19,012	149,030	16,950	16,592	1,134	86	—	202,804
Receivables:								
Contributions	31,987	—	990	4,409	436	—	—	37,822
Interest and dividends	—	50,615	459	13	6	—	—	51,093
Due from brokers for securities sold	—	3,134	—	—	—	—	—	3,134
Other	2,469	—	—	375	160	—	—	3,004
Unremitted insurance premiums	412	—	—	—	—	—	(412)	—
Total receivables	34,868	53,749	1,449	4,797	602	—	(412)	95,053
Investments - at fair value:								
Domestic obligations:								
U.S. treasuries	—	3,725,056	99,558	—	—	—	—	3,824,614
Corporate and other bonds	—	1,105,684	20,015	—	—	—	—	1,125,699
International obligations:								
Corporates	—	93,118	—	—	—	—	—	93,118
Equities:								
Domestic	—	8,966,295	—	15,614	9,944	—	—	8,991,853
International	—	2,575,154	—	1,060	1,211	—	—	2,577,425
Private equity	—	631,937	—	—	—	—	—	631,937
Mutual funds	—	—	—	3,816	3,522	—	—	7,338
Commingled funds	—	—	—	1,514,432	646,482	—	—	2,160,914
Equity in pooled investment fund	16,741,116	—	—	—	—	191,101	(16,932,217)	—
Total investments	16,741,116	17,097,244	119,573	1,534,922	661,159	191,101	(16,932,217)	19,412,898
Capital assets, net	6,313	—	—	—	—	—	—	6,313
Net OPEB asset	1,426	—	—	—	—	—	—	1,426
Total assets	16,802,735	17,300,023	137,972	1,556,311	662,895	191,187	(16,932,629)	19,718,494
Deferred outflows of resources	541	—	—	—	—	—	—	541
Liabilities								
Accounts payable and other	21,041	1,888	565	2,871	1,266	—	—	27,631
Due to brokers for securities purchased	—	8,561	—	—	—	—	—	8,561
Insurance premiums payable	473	—	—	—	—	—	(412)	61
Due to participating systems	—	17,289,574	—	—	—	—	(16,932,217)	357,357
Net OPEB liability	545	—	—	—	—	—	—	545
Total liabilities	22,059	17,300,023	565	2,871	1,266	—	(16,932,629)	394,155
Deferred inflows of resources	2,709	—	—	—	—	—	—	2,709
Net position restricted for:								
Pensions and OPEB	$ 16,778,508	—	137,407	1,553,440	661,629	—	—	19,130,984
Survivors Benefit Fund	$ —	—	—	—	—	191,187	—	191,187

See accompanying notes to financial statements.

Defined Benefit Plans - Combining Statement of Fiduciary Net Position

June 30, 2022
(In thousands)

	Defined benefit pension plans							Defined benefit OPEB plan	
Assets	Employees' Retirement System	Public School Employees Retirement System	Legislative Retirement System	Georgia Judicial Retirement System	Georgia Military Pension Fund	Superior Court Judges Retirement Fund	District Attorneys Retirement Fund	State Employees' Assurance Department OPEB	Defined benefit plans total
Cash and cash equivalents	$ 17,889	223	45	696	56	11	4	88	19,012
Receivables:									
Contributions	31,104	1	—	882	—	—	—	—	31,987
Interest and dividends	—	—	—	—	—	—	—	—	—
Due from brokers for securities sold	—	—	—	—	—	—	—	—	—
Other	2,082	387	—	—	—	—	—	—	2,469
Unremitted insurance premiums	—	—	—	—	—	—	—	412	412
Total receivables	33,186	388	—	882	—	—	—	412	34,868
Investments - at fair value:									
Domestic obligations:									
U.S. treasuries	—	—	—	—	—	—	—	—	—
Corporate and other bonds	—	—	—	—	—	—	—	—	—
International obligations:									
Corporates	—	—	—	—	—	—	—	—	—
Equities:									
Domestic	—	—	—	—	—	—	—	—	—
International	—	—	—	—	—	—	—	—	—
Private equity	—	—	—	—	—	—	—	—	—
Mutual funds	—	—	—	—	—	—	—	—	—
Commingled funds	—	—	—	—	—	—	—	—	—
Equity in pooled investment fund	13,793,518	1,026,546	36,112	515,797	34,923	—	—	1,334,220	16,741,116
Total investments	13,793,518	1,026,546	36,112	515,797	34,923	—	—	1,334,220	16,741,116
Capital assets, net	6,313	—	—	—	—	—	—	—	6,313
Net OPEB asset	1,426	—	—	—	—	—	—	—	1,426
Total assets	13,852,332	1,027,157	36,157	517,375	34,979	11	4	1,334,720	16,802,735
Deferred outflows of resources	541	—	—	—	—	—	—	—	541
Liabilities									
Accounts payable and other	18,645	925	125	813	91	5	2	435	21,041
Due to brokers for securities purchased	—	—	—	—	—	—	—	—	—
Insurance premiums payable	464	—	1	8	—	—	—	—	473
Due to participating systems	—	—	—	—	—	—	—	—	—
Net OPEB liability	545	—	—	—	—	—	—	—	545
Total liabilities	19,654	925	126	821	91	5	2	435	22,059
Deferred inflows of resources	2,709	—	—	—	—	—	—	—	2,709
Net position restricted for pensions and OPEB	$ 13,830,510	1,026,232	36,031	516,554	34,888	6	2	1,334,285	16,778,508

See accompanying notes to financial statements.

Financial Section

Combining Statement of Changes in Fiduciary Net Position

Year ended June 30, 2022
(In thousands)

			Defined contribution plans			Custodial fund	
	Defined benefit plans	Pooled Investment Fund	Georgia Defined Contribution Plan	401(k) Plan	457 Plan	Survivors Benefit Fund	Total
Additions:							
Contributions:							
Employer	$ 621,990	—	—	57,538	—	—	679,528
Nonemployer	43,181	—	—	—	—	—	43,181
Member	44,196	—	16,228	146,280	21,125	—	227,829
Participant fees	—	—	—	583	46	—	629
Insurance premiums	2,641	—	—	—	—	—	2,641
Administrative expense allotment	14	—	—	—	—	—	14
Investment income (loss):							
Net decrease in fair value of investments	—	(2,675,000)	(10,356)	(220,752)	(82,861)	—	(2,988,969)
Interest and dividends	—	369,968	2,436	35	17	—	372,456
Other	—	—	—	589	502	—	1,091
Less investment expenses	(10,122)	(10,308)	(72)	(2,476)	(848)	—	(23,826)
Allocation of investment loss	(2,241,862)	2,315,340	—	—	—	(25,611)	47,867
Net investment loss	(2,251,984)	—	(7,992)	(222,604)	(83,190)	(25,611)	(2,591,381)
Total additions	(1,539,962)	—	8,236	(18,203)	(62,019)	(25,611)	(1,637,559)
Deductions:							
Benefit payments	1,608,800	—	9	137,593	50,440	—	1,796,842
Refunds of member contributions and interest	7,852	—	10,069	—	—	—	17,921
Death benefits	55,053	—	—	—	—	—	55,053
Administrative expenses	11,345	—	987	3,437	585	—	16,354
Total deductions	1,683,050	—	11,065	141,030	51,025	—	1,886,170
Change in net position	(3,223,012)	—	(2,829)	(159,233)	(113,044)	(25,611)	(3,523,729)
Net position restricted for pensions and OPEB and SBF:							
Beginning of year	20,001,520	—	140,236	1,712,673	774,673	216,798	22,845,900
End of year	$ 16,778,508	—	137,407	1,553,440	661,629	191,187	19,322,171

See accompanying notes to financial statements.

Financial Section

Defined Benefit Plans - Combining Statement of Changes in Fiduciary Net Position

Year ended June 30, 2022
(In thousands)

	Defined benefit pension plans							Defined benefit OPEB plan	
	Employees' Retirement System	Public School Employees Retirement System	Legislative Retirement System	Georgia Judicial Retirement System	Georgia Military Pension Fund	Superior Court Judges Retirement Fund	District Attorneys Retirement Fund	State Employees' Assurance Department OPEB	Defined benefit plans total
Additions:									
Contributions:									
Employer	$ 611,410	—	—	7,585	2,697	275	23	—	621,990
Nonemployer	8,313	32,491	—	2,377	—	—	—	—	43,181
Member	36,130	2,256	344	5,466	—	—	—	—	44,196
Participant fees	—	—	—	—	—	—	—	—	—
Insurance premiums	—	—	—	—	—	—	—	2,641	2,641
Administrative expense allotment	10	—	—	—	—	2	2	—	14
Investment income (loss):									
Net decrease in fair value of investments	—	—	—	—	—	—	—	—	—
Interest and dividends	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—
Less investment expenses	(8,912)	(399)	(16)	(193)	(6)	—	—	(596)	(10,122)
Allocation of investment loss	(1,846,683)	(137,746)	(4,832)	(69,141)	(4,687)	—	—	(178,773)	(2,241,862)
Net investment loss	(1,855,595)	(138,145)	(4,848)	(69,334)	(4,693)	—	—	(179,369)	(2,251,984)
Total additions	(1,199,732)	(103,398)	(4,504)	(53,906)	(1,996)	277	25	(176,728)	(1,539,962)
Deductions:									
Benefit payments	1,502,904	68,203	1,818	34,050	1,527	275	23	—	1,608,800
Refunds of member contributions and interest	7,182	614	33	23	—	—	—	—	7,852
Death benefits	—	—	—	—	—	—	—	55,053	55,053
Administrative expenses	7,577	1,523	327	893	266	2	2	755	11,345
Total deductions	1,517,663	70,340	2,178	34,966	1,793	277	25	55,808	1,683,050
Change in net position	(2,717,395)	(173,738)	(6,682)	(88,872)	(3,789)	—	—	(232,536)	(3,223,012)
Net position restricted for pensions and OPEB:									
Beginning of year	16,547,905	1,199,970	42,713	605,426	38,677	6	2	1,566,821	20,001,520
End of year	$ 13,830,510	1,026,232	36,031	516,554	34,888	6	2	1,334,285	16,778,508

See accompanying notes to financial statements.

Statement of Net Position - State Employees' Assurance Department Active Members Fund

June 30, 2022
(In thousands)

Assets:		
Cash and cash equivalents	$	82
Receivables:		
Unremitted insurance premiums		61
Investments - at fair value:		
Equity share of pooled investment fund		357,357
Total assets		357,500
Liabilities:		
Accounts payable and other		48
Total liabilities		48
Total net position	$	357,452

See accompanying notes to financial statements.

Statement of Revenues, Expenses, and Changes in Net Position - State Employees' Assurance Department Active Members Fund

Year ended June 30, 2022
(In thousands)

Operating revenue:		
Insurance premiums	$	479
Total operating revenue		479
Operating expenses:		
Death benefits		3,333
Administrative expenses		84
Total operating expenses		3,417
Total operating loss		(2,938)
Nonoperating revenues (expenses):		
Allocation of investment loss from pooled investment fund		(47,867)
Less investment expenses		(66)
Total nonoperating expenses		(47,933)
Change in net position		(50,871)
Total net position:		
Beginning of year		408,323
End of year	$	357,452

See accompanying notes to financial statements.

Statement of Cash Flows -
State Employees' Assurance Department Active Members Fund

Year ended June 30, 2022
(In thousands)

Cash flows from operating activities:		
Insurance premiums received	$	479
Death benefits paid		(3,333)
Administrative fees paid		(82)
Net cash used in operating activities		(2,936)
Cash flows from investing activities:		
Withdrawals from pooled investment fund		2,900
Investment expenses paid		(66)
Net cash provided by investing activities		2,834
Net decrease in cash and cash equivalents		(101)
Cash and cash equivalents, beginning of year		183
Cash and cash equivalents, end of year		82
Reconciliation of operating loss to net cash used in operating activities:		
Operating loss		(2,938)
Changes in assets and liabilities:		
Unremitted Insurance Premiums		—
Accounts payable and other		2
Net cash used in operating activities	$	(2,936)

See accompanying notes to financial statements.

(1) *General*

The accompanying basic financial statements of the Employees' Retirement System of Georgia, including all plans and funds administered by the Employees' Retirement System of Georgia (collectively, the System), comprise the Employees' Retirement System of Georgia (ERS), Public School Employees Retirement System (PSERS), Legislative Retirement System (LRS), Georgia Judicial Retirement System (GJRS), Georgia Military Pension Fund (GMPF), Superior Court Judges Retirement Fund (SCJRF), District Attorneys Retirement Fund (DARF), State Employees' Assurance Department Retired and Vested Inactive Members Trust Fund (SEAD-OPEB), Georgia Defined Contribution Plan (GDCP), State of Georgia Employees' Qualified Trust Deferred Compensation Plan (401(k) Plan), State of Georgia Employees' Deferred Compensation Plan (457 Plan), Survivors Benefit Fund (SBF), and State Employees' Assurance Department Active Members Fund (SEAD-Active). All significant transactions among the various systems, departments, and funds have been eliminated. The Boards of Trustees, comprising active and retired members, ex officio state employees, and appointees by the Governor, are ultimately responsible for the administration of the System.

(2) *Authorizing Legislation and Plan Descriptions*

Each plan and fund, including benefit and contribution provisions, was established and can be amended by state law. The following summarizes authorizing legislation and the plan description of each retirement fund:

(a) ERS is a cost-sharing multiple-employer defined benefit pension plan established by the Georgia General Assembly during the 1949 Legislative Session for the purpose of providing retirement allowances for employees of the State of Georgia and its political subdivisions. ERS is directed by a Board of Trustees (ERS Board) and has the powers and privileges of a corporation. There were 396 employers and 1 nonemployer contributing entity participating in the plan during 2022. Total participation in ERS at June 30, 2022 was 177,693 as detailed in the following chart:

ERS Membership as of June 30, 2022

Benefits

The ERS Plan supports three benefit tiers: Old Plan, New Plan, and Georgia State Employees' Pension and Savings Plan (GSEPS). Employees under the Old Plan started membership prior to July 1, 1982 and are subject to plan provisions in effect prior to July 1, 1982. Members hired on or after July 1, 1982 but prior to January 1, 2009 are New Plan members subject to modified plan provisions. Effective January 1, 2009, new state employees and rehired state employees who did not retain membership rights under the Old or New Plans are members of GSEPS. ERS members hired prior to January 1, 2009 also have the option to irrevocably change their membership to GSEPS.

Under the Old Plan, the New Plan, and GSEPS, a member may retire and receive normal retirement benefits after completion of 10 years of creditable service and attainment of age 60 or 30 years of creditable service,

(continued)

regardless of age. Additionally, there are some provisions allowing for early retirement after 25 years of creditable service for members under age 60.

Retirement benefits paid to members are based upon the monthly average of the member's highest 24 consecutive calendar months, multiplied by the number of years of creditable service, multiplied by the applicable benefit factor. Annually, postretirement cost-of-living adjustments may also be made to members' benefits, provided the members were hired prior to July 1, 2009. The normal retirement pension is payable monthly for life; however, options are available for distribution of the member's monthly pension, at reduced rates, to a designated beneficiary upon the member's death. Death and disability benefits are also available through ERS.

Contributions and Vesting

Member contributions under the Old Plan are 4% of annual compensation, up to $4,200, plus 6% of annual compensation in excess of $4,200. Under the Old Plan, the state pays member contributions in excess of 1.25% of annual compensation. These state contributions are included in the members' accounts for refund purposes and are used in the computation of the members' earnable compensation for the purpose of computing retirement benefits. Member contributions under the New Plan and GSEPS are 1.25% of annual compensation. The state is required to contribute at a specified percentage of active member payrolls, determined annually by actuarial valuation. The state contributions are not at any time refundable to the member or his/her beneficiary.

Pursuant to The Official Code of Georgia Annotated (O.C.G.A.) 47-2-292, the employer contributions for local tax commissioners and their employees who took office or were employed prior to July 1, 2012 are funded by the State of Georgia on behalf of the local county employer. Pursuant to O.C.G.A. 47-2-290, the employer contribution for certain State Court employees is funded by the state on behalf of the local county employer.

Employer and nonemployer contributions as a percentage of covered payroll required for fiscal year 2022 were based on the June 30, 2019 actuarial valuation for the Old Plan, New Plan, and GSEPS, as follows:

	Old Plan	New Plan	GSEPS
Employer and nonemployer:			
Normal	1.48 %	6.23 %	3.17 %
Employer paid for member	4.75 %	— %	— %
Accrued liability	18.40 %	18.40 %	18.40 %
Total	24.63 %	24.63 %	21.57 %

Members become vested after 10 years of membership service. Upon termination of employment, member contributions with accumulated interest are refundable upon request by the member. However, if an otherwise vested member terminates and withdraws his/her member contributions, the member forfeits all rights to retirement benefits.

(b) PSERS is a cost-sharing multiple-employer defined benefit pension plan established by the Georgia General Assembly in 1969 for the purpose of providing retirement allowances for public school employees who are not eligible for membership in the Teachers Retirement System of Georgia. The ERS Board, plus two additional trustees, administers PSERS (PSERS Board). There were 188 employers and 1 nonemployer contributing entity participating in the plan during 2022. Total participation in PSERS at June 30, 2022 was 105,412 as detailed in the chart on the following page:

(continued)

PSERS Membership as of June 30, 2022

Benefits

A member may retire and elect to receive normal monthly retirement benefits after completion of 10 years of creditable service and attainment of age 65. A member may choose to receive reduced benefits after age 60 and upon completion of 10 years of service.

Upon retirement, the member will receive a monthly benefit of $15.75, multiplied by the number of years of creditable service. Death and disability benefits are also available through PSERS. Additionally, PSERS may make periodic cost-of-living adjustments to the monthly benefits.

Contributions and Vesting

Individuals who became members prior to July 1, 2012 contribute $4 per month for nine months each fiscal year. Individuals who became members on or after July 1, 2012 contribute $10 per month for nine months each fiscal year. The State of Georgia, although not the employer of PSERS members, is required by statute to make employer contributions actuarially determined and approved and certified by the PSERS Board.

Employer contributions required for the year ended June 30, 2022 were $888.52 per active member and were based on the June 30, 2019 actuarial valuation.

Members become vested after 10 years of creditable service. Upon termination of employment, member contributions with accumulated interest are refundable upon request by the member. However, if an otherwise vested member terminates and withdraws his/her member contributions, the member forfeits all rights to retirement benefits.

(c) LRS is a single-employer defined benefit pension plan established by the Georgia General Assembly from 1967–1971, and later reestablished in 1979, for the purpose of providing retirement allowances for all members of the Georgia General Assembly. LRS is administered by the ERS Board. There was one employer in the plan for 2022. Total participation in LRS at June 30, 2022 was 662 as detailed in the following chart:

LRS Membership as of June 30, 2022

(continued)

Benefits

A member's normal retirement is after eight years of creditable service and attainment of age 65, or eight years of membership service (four legislative terms) and attainment of age 62. A member may retire early and elect to receive a monthly retirement benefit after completion of eight years of membership service and attainment of age 60; however, the retirement benefit is reduced by 5% for each year the member is under age 62.

Upon retirement, the member will receive a monthly service retirement allowance of $36, multiplied by the number of years of creditable service. Death benefits are also available through the plan.

Contributions and Vesting

Member contributions are 8.5% of annual salary. The state pays member contributions in excess of 4.75% of annual compensation. Employer contributions are actuarially determined and approved and certified by the ERS Board.

There were no employer contributions required for the year ended June 30, 2022 based on the June 30, 2019 actuarial valuation.

Members become vested after eight years of creditable service. Upon termination of employment, member contributions with accumulated interest are refundable upon request by the member. However, if an otherwise vested member terminates and withdraws his/her member contributions, the member forfeits all rights to retirement benefits.

(d) GJRS is a cost-sharing multiple-employer defined benefit pension plan established by the Georgia General Assembly in 1998 for the purpose of providing retirement allowances for judges and solicitors general of the state courts and juvenile court judges in Georgia, and their survivors and other beneficiaries, superior court judges of the State of Georgia, district attorneys of the State of Georgia, and certain other employees of the General Assembly of the State of Georgia.

The GJRS was also created to serve the members and beneficiaries of the Trial Judges and Solicitors Retirement Fund, the Superior Court Judges Retirement System, and the District Attorneys Retirement System (collectively, the Predecessor Retirement Systems). As of June 30, 1998, any person who was an active, inactive, or retired member or beneficiary of the Predecessor Retirement Systems was transferred to GJRS in the same status effective July 1, 1998. All assets of the Predecessor Retirement Systems were transferred to GJRS as of July 1, 1998. The ERS Board and three additional trustees administer GJRS (GJRS Board). There were 92 employers and 1 nonemployer contributing entity participating in the plan during 2022. Total participation in GJRS at June 30, 2022 was 1,073 as detailed in the following chart:

GJRS Membership as of June 30, 2022

(continued)

Benefits

The normal retirement for GJRS is age 60, with 16 years of creditable service; however, a member may retire at age 60 with a minimum of 10 years of creditable service.

Annual retirement benefits paid to members are computed as 66⅔% of state-paid salary at retirement for district attorneys and superior court judges and 66⅔% of the average over 24 consecutive months for trial judges and solicitors, plus 1% for each year of credited service over 16 years, not to exceed 24 years. Early retirement benefits paid to members are computed as the pro rata portion of the normal retirement benefit, based on service not to exceed 16 years. Death, disability, and spousal benefits are also available.

Contributions and Vesting

Members are required to contribute 7.5% of their annual salary. Those who became members prior to July 1, 2012 must also contribute an additional 2.5% of their annual salary if spousal benefit is elected. Employer contributions are actuarially determined and approved and certified by the GJRS Board.

Pursuant to O.C.G.A. 47-23-81, the employer contributions for state court judges and solicitors are funded by the State of Georgia on behalf of the local county employers and pursuant to O.C.G.A. 47-23-82, the employer contributions for juvenile court judges are funded by the state on behalf of local county employers.

Employer and nonemployer contributions required for fiscal year 2022 were based on the June 30, 2019 actuarial valuation, as follows:

Employer and nonemployer:	
Normal	13.93 %
Accrued liability	(5.12)
Total	8.81 %

Members become vested after 10 years of creditable service. Upon termination of employment, member contributions with accumulated interest are refundable upon request by the member. However, if an otherwise vested member terminates and withdraws his/her member contributions, the member forfeits all rights to retirement benefits.

(e) GMPF is a single-employer defined benefit pension plan established on July 1, 2002 by the Georgia General Assembly for the purpose of providing retirement allowances and other benefits for members of the Georgia National Guard (the National Guard). The ERS Board administers the GMPF.

Membership

As of June 30, 2022, GMPF had 1,472 retirees and beneficiaries currently receiving benefits. Active and inactive plan member information is maintained by one employer, the Georgia Department of Defense.

Benefits

A member becomes eligible for benefits upon attainment of age 60, with 20 or more years of creditable service (including at least 15 years of service as a member of the National Guard), having served at least 10 consecutive years as a member of the National Guard immediately prior to discharge, and having received an honorable discharge from the National Guard.

The retirement allowance is payable for life in the amount of $50 per month, plus $5 per month for each year of creditable service in excess of 20 years. The maximum benefit is $100 per month.

(continued)

Contributions and Vesting

Employer contributions are actuarially determined and approved and certified by the ERS Board. There are no member contributions required.

Employer contributions required for the year ended June 30, 2022 were $196.72 per active member and were based on the June 30, 2019 actuarial valuation.

A member becomes vested after 20 years of creditable service (including at least 15 years of service as a member of the National Guard), having served at least 10 consecutive years as a member of the National Guard immediately prior to discharge, and having received an honorable discharge from the National Guard.

(f) SCJRF is a single-employer defined benefit pension plan established by the Georgia General Assembly in 1945 for the purpose of providing retirement benefits to the superior court judges of the State of Georgia. SCJRF is directed by its own Board of Trustees (SCJRF Board). The ERS Board and SCJRF Board entered into a contract for the System to administer the plan effective July 1, 1995.

Membership

As of June 30, 2022, SCJRF had four retirees and beneficiaries currently receiving benefits and no active members. No new members are allowed in SCJRF.

Benefits

The normal retirement for SCJRF is age 68, with 19 years of creditable service, with a benefit of two-thirds the salary paid to superior court judges. A member may also retire at age 65, with a minimum of 10 years of creditable service, with a benefit of one-half the salary paid to superior court judges. Death, disability, and spousal benefits are also available.

Contributions and Vesting

Employer contributions are not actuarially determined, but are provided on an as-needed basis to fund current benefits.

(g) DARF is a multiple-employer defined benefit pension plan established by the Georgia General Assembly in 1949 for the purpose of providing retirement benefits to the district attorneys of the State of Georgia. DARF is directed by its own Board of Trustees (DARF Board). The ERS Board and DARF Board entered into a contract for the System to administer the plan effective July 1, 1995.

Membership

As of June 30, 2022, DARF had two retirees and beneficiaries currently receiving benefits and no active members. No new members are allowed into DARF.

Benefits

Persons appointed as district attorney emeritus shall receive an annual benefit of $15,000, or one-half of the state salary received by such person as a district attorney for the calendar year immediately prior to the person’s retirement, whichever is greater.

Contributions and Vesting

Employer contributions are not actuarially determined, but are provided on an as-needed basis to fund current benefits.

(h) SEAD-OPEB is a cost-sharing multiple-employer defined benefit other postemployment benefit plan created in 2007 by the Georgia General Assembly to amend Title 47 of the O.C.G.A., relating to retirement, so as to establish a fund for the provision of term life insurance to retired and vested inactive members of ERS, LRS, and GJRS. Effective July 1, 2009, no newly hired members of any Georgia public retirement system are

(continued)

eligible for term life insurance under SEAD. The SEAD-OPEB trust fund accumulates the premiums received from the aforementioned retirement systems, including interest earned on deposits and investments of such payments from retired and vested inactive members. There were 389 employers and 1 nonemployer contributing entity participating in the plan during 2022. Total participation in SEAD-OPEB at June 30, 2022 was 62,356 as detailed in the following chart:

SEAD Membership as of June 30, 2022

Employee contribution rates as a percentage of member's salaries for the fiscal year ended June 30, 2022 were as follows: ERS Old Plan – 0.45% and ERS New Plan, LRS, and GJRS – 0.23%. ERS Old Plan members were hired prior to July 1, 1982 and New Plan members were hired on or after July 1, 1982, but prior to January 1, 2009.

Georgia law provides that employee contributions to the plan shall be in an amount established by the Board of Trustees (SEAD Board) not to exceed one-half of 1% of the member's earnable compensation. There were no employer contributions required for the fiscal year ended June 30, 2022.

According to the policy terms covering the lives of members, insurance coverage is provided on a monthly, renewable term basis, and no return premiums or cash value are earned. The net position represents the excess accumulation of investment income and premiums over benefit payments and expenses, and is held as a reserve for payment of death benefits under existing policies.

The amount of insurance for a retiree with creditable service prior to April 1, 1964 is the full amount of insurance under SEAD-Active in effect on the date of retirement. The amount of insurance for a service retiree with no creditable service prior to April 1, 1964 is 70% of the amount of insurance under SEAD-Active at age 60 or at termination, if earlier. Life insurance proceeds are paid in a lump sum to the beneficiary upon death of the retiree.

Administrative costs for the plan are determined based on the plan's share of overhead costs to accumulate and invest funds, actuarial services, and to process benefit payments to beneficiaries. Administrative fees are financed from the assets of the plan.

(i) GDCP is a defined contribution plan established by the Georgia General Assembly in July 1992 for the purpose of providing retirement allowances for state employees who are not members of a public retirement or pension system and do not participate in Social Security. GDCP is administered by the ERS Board. There were 65 employers participating in the plan during 2022. There were 137,153 members as of June 30, 2022.

Benefits

A member may retire and elect to receive periodic payments after attainment of age 65. The payments will be based upon mortality tables and interest assumptions adopted by the ERS Board. If a terminated member has less than $5,000 credited to his/her account, the ERS Board has the option of requiring a lump-sum

(continued)

distribution to the member. Upon the death of a member, a lump-sum distribution equaling the amount credited to his/her account will be paid to the member's designated beneficiary.

Contributions and Vesting

Members are required to contribute 7.5% of their annual salary and vest immediately in the plan upon contribution. There are no employer contributions. Earnings will be credited to each member's account as adopted by the ERS Board. Upon termination of employment, the amount of the member's account is refundable upon request by the member.

(j) The 401(k) Plan was established by the State of Georgia Employee Benefit Plan Council in accordance with Georgia Law 1985, as amended, O.C.G.A, Sections 45-18-50 through 45-18-58, and Section 401(k) of the Internal Revenue Code (IRC). On October 1, 1994, activity commenced when the 401(k) Plan became available to employees of the State of Georgia Community Service Boards (CSBs). On December 1, 1998, the 401(k) Plan became available to employees of the Georgia Lottery Corporation (GLC). On July 1, 2005, the Plan became available to employees of Fayette County Board of Education, however, on July 1, 2020, Fayette County Board of Education discontinued participation; on July 1, 2006, the Plan became available to employees of Walton County Board of Education; on January 1, 2010, the Plan became available to employees of Henry County Board of Education; and on July 1, 2017, the Plan became available to employees of the Baldwin County Board of Education.

Effective July 1, 1998, the State of Georgia Employee's Deferred Compensation Group Trust (the Master Trust) was formed for the State of Georgia Deferred Compensation Program to serve as the funding medium for the 401(k) Plan. At that time, the 401(k) Plan began operating on an employee elective deferral basis for all state employees working at least 1,000 hours in a 12-month period. All assets of the 401(k) Plan are held in trust for the exclusive benefit of the participants and their beneficiaries. The assets of the 401(k) Plan and the 457 Plan are commingled in the Master Trust with the respective trusts owning units of the Master Trust. Participant contributions are invested according to the participant's investment election. If the participant does not make an election, investments are automatically defaulted to a Lifecycle Fund based on the participant's date of birth.

Effective July 1, 2005 (HB275), the ERS Board became the trustee of the 401(k) Plan. Alight Solutions and J.P. Morgan hold, administer, and invest the assets of the Master Trust.

Contributions and Vesting

Participating CSBs, the GLC, and Walton and Henry County Boards of Education offer employer contributions, some matching, some automatic, and some a combination of both, to eligible employees at various rates (limited to a maximum of $290,000 base salary in calendar year 2021 and $305,000 in calendar year 2022). As of January 1, 2009, individual participants may defer up to 80% of eligible compensation, or up to limits prescribed by the IRC (whichever is less).

Effective January 1, 2009, in accordance with O.C.G.A. 47-2-350 through 47-2-360, newly hired state employees, as well as rehired state employees who did not maintain eligibility for the ERS Old Plan or New Plan, are members of GSEPS. From January 1, 2009 to June 30, 2014, the GSEPS tier included automatic enrollment in the 401(k) Plan at a contribution rate of 1% of salary. Effective July 1, 2014, in accordance with HB764, the employee contribution rate for automatic enrollment increased from 1% to 5%. The State matches 100% of the employee's initial 1% contribution and 50% of contributions above 1% and up to 5%. Therefore, the state will match 3% of salary when an employee contributes at least 5% to the 401(k) Plan. Employee contributions greater than 5% of salary do not receive any additional matching funds. Plan participants who are not employees of the GLC, a CSB, Walton and Henry County Boards of Education, or who are not GSEPS eligible, do not receive any employer contributions in their 401(k) Plan.

(continued)

All employer contributions are subject to a vesting schedule, which determines eligibility to receive all or a portion of the employer contribution balance at the time of any distribution from the account after separation from all state service. Vesting is determined based on the schedule as follows:

Less than 1 year	— %
1	20
2	40
3	60
4	80
5 or more years	100

For CSB/GLC participants whose services terminated prior to January 1, 2010 but after December 31, 2001, the following vesting schedule applies:

Less than 2 years	— %
2	20
3	40
4	60
5	80
6 or more years	100

For CSB/GLC participants whose services terminated prior to January 1, 2002, the following vesting schedule applies:

Less than 3 years	— %
3	20
4	40
5	60
6	80
7 or more years	100

Employee contributions and earnings thereon are 100% vested at all times. The 401(k) Plan also allows participants to roll over amounts from other qualified plans to their respective account in the 401(k) Plan on approval by the 401(k) plan administrator. Such rollovers are 100% vested at the time of transfer.

Participation

As of June 30, 2022, the 401(k) Plan had 74,098 participants with a balance. A total of 461 employers transmitted contributions to the plan during 2022.

Distributions

The participant may receive the value of his or her vested accounts upon attaining age 59 ½, qualifying financial hardship, or 30 days after retirement or other termination of service (employer contribution balances are only eligible for distribution upon separation from service). Upon the death of a participant, his or her beneficiary shall be entitled to the vested value of his or her accounts. Employees who die while actively employed and eligible for 401(k) Plan employer matching contributions become fully vested in employer contributions upon death. Distributions are made in installments or in a lump sum.

(k) The 457 Plan was established by the State Personnel Board in accordance with Georgia Law 1974, page 198 as amended, O.C.G.A., Sections 45-18-30 through 45-18-36, and Section 457 of the IRC. The 457 Plan is available to employees of the State of Georgia and county health departments and permits such

(continued)

employees to defer a portion of their annual salary until future years. Employee contributions and earnings thereon are 100% vested at all times.

Effective July 1, 1998, the Master Trust was formed for the State of Georgia Deferred Compensation Program to serve as the funding medium for the 457 Plan. All assets of the 457 Plan are held in trust for the exclusive benefit of the participants and their beneficiaries. The assets of the 457 Plan and the 401(k) Plan are commingled in the Master Trust with the respective trusts owning units of the Master Trust. Participant contributions are invested according to the participant's investment election. If the participant does not make an election, investments are automatically defaulted to a Lifecycle Fund based on the participant's date of birth.

Effective July 1, 2005 (HB275), the ERS Board became the trustee of the 457 Plan. Alight Solutions and J.P. Morgan hold, administer, and invest the assets of the Master Trust.

Participation

As of June 30, 2022, the 457 Plan had 11,718 participants with a balance. A total of 336 employers transmitted contributions to the plan during 2022.

Distributions

The balance in the employee's account in the 457 Plan is not available to the employee until age 70 ½, termination, retirement, death, or unforeseeable emergency, as defined in the 457 Plan. Upon the death of a participant, his or her beneficiary shall be entitled to the vested value of his or her accounts. Distributions are made in installments or in a lump sum.

(l) SBF was established under O.C.G.A. 47-2-128(c)(3) within the ERS trust solely for maintaining group term life insurance coverage for members of the plan. All assets of SBF are therefore limited to the payment of benefits and expenses for such coverage and cannot be used to pay pension benefits of ERS. SBF is shown on the financial statements separately as a custodial fund to reflect ERS's custodial responsibility and to account for assets held for distribution to SEAD-Active and SEAD-OPEB. SBF may only be used to pay benefits or expenses of SEAD-OPEB or SEAD-Active with authorization by the ERS Board. An actuarial valuation is not prepared, as there are no funding requirements.

(m) SEAD-Active is a cost-sharing multiple-employer life insurance plan created in 2007 by the Georgia General Assembly to amend Title 47 of the O.C.G.A., relating to retirement, so as to establish a fund for the provision of term life insurance to active members of ERS, LRS, and GJRS. Effective July 1, 2009, no newly hired members of any Georgia public retirement system are eligible for term life insurance under SEAD. The SEAD-Active fund accumulates the premiums received from the aforementioned retirement systems, including interest earned on deposits and investments of such payments from active members. There were 389 employers and 1 nonemployer contributing entity participating in the plan during 2022. As of June 30, 2022, there were 16,926 active plan members in SEAD-Active.

Employee contribution rates as a percentage of member's salaries for the fiscal year ended June 30, 2022 were as follows: ERS Old Plan – 0.05% and ERS New Plan, LRS, and GJRS – 0.02%. ERS Old Plan members were hired prior to July 1, 1982 and new plan members were hired on or after July 1, 1982, but prior to January 1, 2009.

Georgia law provides that employee contributions to the plan shall be in an amount established by the SEAD Board not to exceed one-half of 1% of the member's earnable compensation. There were no employer contributions required for the fiscal year ended June 30, 2022.

According to the policy terms covering the lives of members, insurance coverage is provided on a monthly, renewable term basis, and no return premiums or cash value are earned. The net position represents the

(continued)

excess accumulation of investment income and premiums over benefit payments and expenses, and is held as a reserve for payment of death benefits under existing policies.

The amount of insurance coverage is equal to 18 times monthly earnable compensation frozen at age 60. For members with no creditable service prior to April 1, 1964, the amount decreases from age 60 by a half of 1% per month until age 65, at which point the member will be covered for 70% of the age 60 coverage. Life insurance proceeds are paid in a lump sum to the beneficiary upon death of the member.

Administrative costs for the plan are determined based on the plan's share of overhead costs to accumulate and invest funds, actuarial services, and to process benefit payments to beneficiaries. Administrative fees are financed from the assets of the plan.

(3) *Significant Accounting Policies and System Asset Matters*

(a) Basis of Accounting

The System's financial statements are prepared in accordance with U.S. generally accepted accounting principles as applicable to governmental organizations. The System follows the reporting requirements established by the GASB.

Fiduciary funds include the defined benefit plans and defined contribution plans, which are accounted for on the flow of economic resources measurement focus and the accrual basis of accounting. Contributions to the defined benefit pension plans and OPEB plan are recognized when due, based on statutory requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan. Contributions to the deferred compensation plans are recognized as received. The SBF is a custodial fund and accounted for on the flow of economic resources measurement focus and the accrual basis of accounting. The proprietary fund comprises the SEAD-Active plan. This fund is accounted for on the flow of economic resources measurement focus and uses the accrual basis of accounting. The principal operating revenues are derived from insurance premiums. Operating expenses include the cost of claims and related expenses.

(b) Reporting Entity

The System is a component unit of the State of Georgia; however, it is accountable for its own fiscal matters and presentation of its separate financial statements. The System has considered potential component units under GASB Statements No. 80, *Blending Requirements for Certain Component Units*, No. 61, *The Financial Reporting Entity's Omnibus – An Amendment of GASB Statement No. 14 and No. 34*, and No. 39, *Determining Whether Certain Organizations are Component Units*, and determined there were no component units of the System.

(c) Cash and Cash Equivalents

Cash and cash equivalents, reported at cost, include cash on deposit at banks and cash on deposit with the investment custodian.

(d) Investments

Investments are reported at fair value, and in some cases, net asset value (NAV) as a practical expedient to fair value. Equity securities traded on a national or international exchange are valued at the last reported sales price. Investments in private investment companies are valued utilizing the NAVs provided by the underlying private investment companies as a practical expedient. The Pooled Investment Fund (the Fund) applies the practical expedient to its investments in private investment companies on an investment-by-investment basis, consistent with the Fund's entire position in a particular investment, unless it is probable that the Fund will sell a portion of an investment at an amount different from the NAV of the investment. Private equity fair value is measured using the valuation of the underlying companies as reported by the general partner. These investments, in the form of limited partnerships, reflect values and related

(continued)

performance on a quarter-lag basis due to the nature of the investments and the time it takes to value them. The estimated fair value of investments without readily determinable market values could differ significantly if a ready market for these assets existed. Fixed income securities are valued based primarily on quoted market prices provided by independent pricing sources. Global foreign exchange holdings are translated using a third-party vendor. Investment income is recognized as earned by the System. There are no investments in, loans to, or leases with parties related to the System.

The System utilizes various investment instruments. Investment securities, in general, are exposed to various risks, such as interest rate, credit, foreign currency, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

The System's policy with regard to the allocation of invested assets is established on a cost basis in compliance with Georgia statute. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension and OPEB plans. The following was the System's adopted asset allocation policy as of June 30, 2022:

Asset class	Target allocation
Fixed income	25%-45%
Equities	55%-75%
Alternative investments	0%-5%
Total	100%

Approximately 19.7% of the investments held in trust for pension and OPEB benefits are invested in debt securities of the U.S. government. The System has no investments in any one organization, other than those issued by the U.S. government and its instrumentalities, that represent 5% or more of the System's net position restricted for pensions and OPEB and SBF.

For the year ended June 30, 2022, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was (18.7)%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

(e) Capital Assets

Capital assets, including software development costs, are stated at cost less accumulated depreciation and reside in ERS. The capitalization thresholds are $100,000 for buildings and building improvements and $5,000 for equipment and vehicles. Depreciation on capital assets is computed using the straight-line method over estimated useful lives of 3 to 40 years. Depreciation expense is included in administrative expenses. Maintenance and repairs are charged to administrative expenses when incurred. When assets are retired or otherwise disposed of, the costs and related accumulated depreciation are removed from the accounts, and any resulting gain or loss is reflected in the *Combining Statement of Changes in Fiduciary Net Position* in the period of disposal. The following table summarizes the estimated useful life by class:

Capital Asset Class	Estimated Useful Life
Buildings	40 years
Furniture and fixtures	5-7 years
Computer equipment	3-7 years
Computer software	3-10 years

(continued)

(f) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of net position and changes therein. Actual results could differ from those estimates.

(g) New Accounting Pronouncements

Pronouncements effective for the 2022 financial statements:

In June 2017, the GASB issued Statement No. 87, *Leases* effective for fiscal years beginning after December 15, 2019. In May 2020, the GASB issued Statement No. 95 which changed the effective date for Statement No. 87 to fiscal years beginning after June 15, 2021. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. The System has evaluated its applicable leases and deemed them immaterial for reporting purposes.

In June 2018, the GASB issued Statement No. 89, *Accounting for Interest Costs Incurred before the End of a Construction Period* effective for fiscal years beginning after December 15, 2019. In May 2020, the GASB issued Statement No. 95 which changed the effective date for Statement No. 89 to fiscal years beginning after December 15, 2020. The objectives of this Statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period. In addition, this Statement's goal is to simplify accounting for interest cost incurred before the end of a construction period. There are no applicable reporting requirements for the System related to this Statement.

In January 2020, the GASB issued Statement No. 92, *Omnibus 2020* effective for fiscal years beginning after June 15, 2020. In May 2020, the GASB issued Statement No. 95 which changed the effective date for Statement No. 92 to fiscal years beginning after June 15, 2021. The objectives of this Statement are to enhance comparability in accounting and financial reporting as well as improve the consistency of authoritative literature. The variety of topics covered include the effective date for Statement No. 87, the reporting of intra-entity transfers, the applicability of certain requirements of Statements No. 73, 74, and 84, and the measurement of liabilities related to asset retirement obligations. There are no applicable reporting requirements for the System related to this Statement.

In March 2020, the GASB issued Statement No. 93, *Replacement of Interbank Offered Rates,* effective for fiscal years ending after December 31, 2021 for the removal of LIBOR as a benchmark interest rate. The objective of this Statement is to address the accounting and financial reporting implications that result from the replacement of LIBOR. There are no applicable reporting requirements for the System related to this Statement.

In June 2020, the GASB issued Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans - an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32,* effective for fiscal years beginning after June 15, 2021. The objectives of this Statement are to increase consistency and comparability related to the reporting of fiduciary component units when a potential component unit does not have a governing board, mitigate the costs associated with the reporting of defined contribution pension plans or other postemployment benefit plans as fiduciary component units, and enhance the relevance, consistency, and comparability for Internal Revenue Code Section 457 deferred compensation plans. There are no applicable reporting requirements for the System related to this Statement.

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In April 2022, the GASB issued Statement No. 99, *Omnibus 2022*, effective upon issuance, except for the requirements related to leases, PPP's, and SBITAs that are effective for fiscal years beginning after June 15, 2022 and for the requirements related to financial guarantees and classification and reporting of derivative instruments that are effective for fiscal years beginning after June 15, 2023. The objective of this Statement is to improve the consistency of authoritative literature and enhance the comparability in accounting and financial reporting. The variety of topics covered include the requirements related to the extension of the use of LIBOR, disclosures of nonmonetary transactions, pledges of future revenues by the pledging governments, clarification of provisions in Statement No. 34, and terminology used in Statement No. 53 and 63. There are no applicable reporting requirements for the System related to this Statement

Pronouncements issued, but not yet effective:

In May 2019, the GASB issued Statement No. 91, *Conduit Debt Obligations* effective for fiscal years beginning after December 15, 2020. In May 2020, the GASB issued Statement No. 95 which changed the effective date for Statement No. 91 to fiscal years beginning after December 15, 2021. The objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with commitments extended by issuers, arrangements associated with conduit debt obligations, and related note disclosures. The System does not anticipate this statement will impact its financial statements and related reporting.

In March 2020, the GASB issued Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements* effective for fiscal years beginning after June 15, 2022. The objective of this Statement is to improve the comparability of financial statements among governments that enter into public-private and public-public partnership arrangements and availability payment arrangements. The System does not anticipate this pronouncement will impact its financial statements and related reporting.

In May 2020, the GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements*, effective for fiscal years beginning after June 15, 2022. The objective of this Statement is to better meet the informational needs of financial statement users by establishing uniform accounting and financial reporting requirements and improving the comparability of financial statements among governments that have entered into subscription-based information technology arrangements. The System is in the process of evaluating the impact of this pronouncement on its financial statements.

In April 2022, the GASB issued Statement No. 99, *Omnibus 2022*, effective for fiscal years beginning after June 15, 2022 for the requirements related to leases, PPP's, and SBITAs, and effective for fiscal years beginning after June 15, 2023 for the requirements related to financial guarantees and classification and reporting of derivative instruments. The objective of this Statement is to improve the consistency of authoritative literature and enhance the comparability in accounting and financial reporting. The System is in the process of evaluating the impact of this pronouncement on its financial statements.

In June 2022, the GASB issued Statement No. 100, *Accounting Changes and Error Corrections — an amendment of GASB Statement No. 62*, effective for fiscal years beginning after June 15, 2023. The objective of this Statement is to improve the clarity of the accounting and financial reporting for accounting changes and error corrections to have greater consistency in the application. The System is in the process of evaluating the impact of this pronouncement on its financial statements.

In June 2022, the GASB issued Statement No. 101, *Compensated Absences*, effective for fiscal years beginning after December 15, 2023. The objective of this Statement is to eliminate potential comparability issues between governments that offer different leave types and enhance the relevance and reliability of the liability for compensated absences. The System is in the process of evaluating the impact of this pronouncement on its financial statements.

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(4) *Investment Program*

The System maintains sufficient cash to meet its immediate liquidity needs. Cash not immediately needed is invested as directed by the ERS Board. All investments are held by agent custodial banks in the name of the System. State statutes and the System's investment policy authorize the System to invest in a variety of short- term and long-term securities as follows:

(a) Cash and Cash Equivalents

Custodial credit risk is the risk that in the event a depository institution or counterparty fails, the System would not be able to recover the value of its deposits or investments. The System does not have a formal policy relating to custodial credit risk. The carrying amount of the System's deposits totaled $202.8 million at June 30, 2022, with actual bank balances of $208.0 million. The System's bank balances of $191.9 million are fully insured through the Federal Deposit Insurance Corporation, an independent agency of the U.S. government. Deposit amounts not covered under FDIC in the amount of $39.2 thousand are included in the State's Secure Deposit Program (SDP) and are fully insured. In 2018, the State of Georgia implemented the SDP, a multi-bank pledging pool. The SDP requires participating banks that accept public deposits in Georgia to operate under the policy and procedures of the program. For disclosure purposes, all deposits of participants in the SDP are considered to be fully insured. The remaining bank deposits of $16.1 million are uninsured and uncollateralized. The System's noncash investments are held in the System's name and are not exposed to custodial credit risk.

The System engages in repurchase and reverse repurchase agreements as part of the securities lending program. The System and the broker exchange cash for direct obligations of the U.S. government or obligations unconditionally guaranteed by agencies of the U.S. government or U.S. corporations. The System or broker promises to repay the cash received plus interest at a specific date in the future in exchange for the same securities.

Short-term securities authorized but not currently used are:

- U.S. Treasury obligations

- Commercial paper, with a maturity of 180 days or less. Commercial paper is an unsecured promissory note issued primarily by corporations for a specific amount and maturing on a specific day. The System considers for investment only commercial paper of the highest quality, rated P-l and/or A-l by national credit rating agencies.

- Master notes, an overnight security administered by a custodian bank and an obligation of a corporation whose commercial paper is rated P-l and/or A-l by national credit rating agencies.

Investments in commercial paper or master notes are limited to no more than $500 million in any one name.

(b) Investments

Fixed income investments, managed by the Division of Investment Services (the Division), are authorized in the following instruments:

- U.S. and foreign government obligations. At June 30, 2022, the System held U.S. Treasury bonds of approximately $3.8 billion.

- U.S. and foreign corporate obligations. At June 30, 2022, the System held U.S. corporate bonds of approximately $1.1 billion and international corporate bonds of approximately $93.1 million.

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- Obligations unconditionally guaranteed by agencies of the U.S. government. At June 30, 2022, the System did not hold agency bonds.

- Private placements are authorized under the same general restrictions applicable to corporate bonds. At June 30, 2022, the System did not hold private placements.

Mortgage investments are authorized to the extent that they are secured by first mortgages on improved real property located in the State of Georgia.

Equity securities are also authorized (in statute) for investment as a complement to the System's fixed income portfolio and as a long-term inflation hedge. By statute, no more than 75% of the total invested assets on a historical cost basis may be placed in equities. Equity holdings in any one corporation may not exceed 5% of the outstanding equity of the issuing corporation. The equity portfolio is managed by the Division, in conjunction with independent advisers. Buy/sell decisions are based on securities meeting rating criteria established by the ERS Board, in-house research considering such matters as yield, growth, and sales statistics, and analysis of independent market research. Equity trades are approved and executed by the Division's staff. Common stocks eligible for investment are approved by the Investment Committee of the ERS Board before being placed on an approved list.

Equity investments are authorized in the following instruments:

- Domestic equities are those securities considered by O.C.G.A. to be domiciled in the United States. At June 30, 2022, the System held domestic equities of approximately $9.0 billion, excluding the 401(k) and 457 plans.

- International equities, including American Depository Receipts (ADR), are not considered by the O.C.G.A. to be domiciled in the United States. At June 30, 2022, the System held international equities of approximately $1.3 billion and ADRs of approximately $1.3 billion, excluding the 401(k) and 457 plans.

- Alternative investments are authorized (in statute) to provide portfolio diversification and to enhance the risk-adjusted rate of return for the retirement fund that benefits the members of the System. By statute, the allocation to alternative investments shall not, in the aggregate, exceed 5% of the System's plan assets at any time. Further, in any calendar year, new commitments to alternative investments shall not, in the aggregate, exceed 1.0% of the System's plan assets until the first occurrence that 4.5% of the assets have been invested, at which time there shall be no limit on the percentage of commitments that may be made in any calendar year, subject to compliance with other provisions of the statute. At June 30, 2022, the System held private equity investments of approximately $631.9 million.

The Master Trust invests in various mutual funds, common collective trust funds, and separate accounts, as selected by participants. Each participant is allowed to select and invest contributions into investment options that own one or more commingled funds, as authorized by the ERS Board. Participants may also contribute to a self-directed brokerage account that offers investments in various mutual funds and equities. At June 30, 2022, the deferred compensation plans held commingled funds of approximately $2.2 billion, mutual funds of approximately $7.3 million, domestic equities of approximately $25.6 million, and international equities of approximately $2.3 million.

Substantially all of the investments of ERS, PSERS, LRS, GJRS, GMPF, SEAD-OPEB, SBF, and SEAD-Active are pooled into one common investment fund. Units in the pooled common investment fund are allocated to the respective plans based upon the cost of assets contributed, and additional units are allocated to the participating plans based on the market value of the pooled common investment fund at the date of contribution. Net income of the pooled common investment fund is allocated monthly to the participating plans, based upon the number of units outstanding during the month.

(continued)

The units and fair value of each plan's equity in the pooled common investment fund at June 30, 2022, were as follows (dollars in thousands):

	Fair value	Units
Employees' Retirement System	$ 13,793,518	2,165,903
Public School Employees Retirement System	1,026,546	161,192
Legislative Retirement System	36,112	5,670
Georgia Judicial Retirement System	515,797	80,992
Georgia Military Pension Fund	34,923	5,484
State Employees' Assurance Department - OPEB	1,334,220	209,504
Survivors Benefit Fund	191,101	30,007
Total defined benefit plans	16,932,217	2,658,752
State Employees' Assurance Department - Active	357,357	56,113
Total in pooled investment funds	$ 17,289,574	2,714,865

Fair Value Measurements. The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the inputs used in valuation and gives the highest priority to unadjusted quoted prices in active markets and requires that observable inputs be used in the valuations when available. The disclosure of fair value estimates in the hierarchy is based on whether the significant inputs into the valuations are observable. In determining the level of the hierarchy in which the estimate is disclosed, the highest level, Level 1, is given to unadjusted quoted prices in active markets and the lowest level, Level 3, to unobservable inputs.

The three levels of the fair value hierarchy are as follows:

Level 1 – Valuations based on unadjusted quoted prices for identical instruments in active markets that the System has the ability to access.

Level 2 – Valuations based on 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 – Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The System also has investments held through limited partnerships for which fair value is estimated using the NAV reported by the general partner as a practical expedient to fair value. Such investments have not been categorized within the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each investment. The table on the next page shows the fair value leveling of the System's investments (in thousands):

(continued)

Investments by fair value level	Fair value measures using Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Equities:				
Domestic	$ 8,991,853	—	—	8,991,853
International	2,563,381	13,690	355	2,577,425
Obligations:				
Domestic:				
U.S. treasuries	3,824,614	—	—	3,824,614
Corporate bonds	—	1,125,700	—	1,125,699
International:				
Corporate bonds	—	93,118	—	93,118
Mutual funds	7,338	—	—	7,338
Commingled funds	91,272	2,069,642	—	2,160,914
Total investments by fair value level	$ 15,478,458	3,302,150	355	18,780,961
Investments measured at NAV*				
Private equity funds				631,937
Total investments				$ 19,412,898

*Certain investments that are measured at fair value using the NAV per share (or its equivalent) as a practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the *Combining Statement of Fiduciary Net Position*.

Equity securities classified in Level 1 are valued using prices quoted in active markets for those securities. Equity securities in Level 2 are valued using prices quoted for similar instruments in active markets. Equity securities classified in Level 3, if any, are valued using third-party valuations not currently observable in the market.

Debt securities classified in Level 1 are valued using prices quoted in active markets. Debt securities classified in Level 2 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features, and ratings. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. These securities have nonproprietary information that was readily available to market participants, from multiple independent sources, which are known to be actively involved in the market.

Mutual funds and commingled funds classified in Level 1 are valued using prices quoted in active markets for those investment types. Commingled funds classified in Level 2 are valued using observable underlying inputs that are market corroborated.

Unfunded commitments, redemption frequency, and redemption notice period relative to the System's alternative investments for which the System utilized NAV or its equivalent relative to the determination of fair value at June 30, 2022, are noted on the following page (in thousands):

(continued)

	Investments measured at NAV	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	$ 631,937	256,355	Not Eligible	N/A

Investments in privately held limited partnerships are valued using the NAV provided by the general partner as of March 31 of each fiscal year, adjusted by the System for cash flows through June 30. The quarterly values of the partnership investments provided from the general partner are reviewed by the System to determine if any adjustments are necessary. The types of partnership strategies held include growth equity, leveraged buyouts, and mezzanine debt. Two of the 21 partnerships held are secondary investments and are in or nearing the wind up phase of the fund. The remaining investments typically have an approximate life of 8–10 years. These investments are considered illiquid since the nature of these private investments prohibits redemption with the fund; instead, distributions are received from the general partner through liquidation of the underlying assets of the fund. The System currently has no plans to sell any of the investments prior to their liquidation resulting in these assets being carried at the NAV estimated by the general partner and adjusted for second quarter cash flows by the System.

Credit Risk: Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the System. O.C.G.A. 47-20-84 limits investments to investment-grade securities. It is the System's investment policy to require that the bond portfolio be of high quality and chosen with respect to maturity ranges, coupon levels, refunding characteristics, and marketability. The System's policy is to require that new purchases of bonds be restricted to high-grade bonds rated no lower than "A" by any nationally recognized statistical rating organization. Obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk and do not require disclosure of credit quality. The quality ratings of investments in fixed income securities as described by Standard & Poor's and by Moody's Investors Service, which are nationally recognized statistical rating organizations, at June 30, 2022, are shown in the table on the following page (in thousands):

(continued)

Quality ratings of fixed income investments held at June 30, 2022			
Investment type	**Standard and Poor's/ Moody's quality rating**		**June 30, 2022 fair value**
Domestic obligations:			
U.S. treasuries		$	3,824,614
Corporates	AAA/Aaa		214,293
	AA/Aaa		171,562
	AA/Aa		187,347
	AA/A		187,549
	A/A		273,124
	A/Baa		91,824
Total domestic corporates			1,125,699
International obligations:			
Corporates	AA/A		93,118
Total international corporates			93,118
Total fixed income investments		$	5,043,431

Mutual funds, commingled funds, and various equities of the deferred compensation plans are not considered to have credit risk and do not require disclosure of credit risk rating.

Concentration of Credit Risk: Concentration of credit risk is the risk of loss that may be attributed to the magnitude of a government’s investment in a single issuer. At June 30, 2022, the System did not have debt or equity investments in any one organization, other than those issued or guaranteed by the U.S. government or its agencies, which represented greater than 5% of total investments.

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 System has no formal interest rate risk policy, active management of the bond portfolio incorporates interest rate risk to generate improved returns. This risk is managed within the portfolio using the effective duration method. This method is widely used in the management of fixed income portfolios and quantifies to a much greater degree the sensitivity to interest rate changes when analyzing a bond portfolio with call options, prepayment provisions, and any other cash flows. Effective duration makes assumptions regarding the most likely timing and amounts of variable cash flows and is best utilized to gauge the effect of a change in interest rates on the fair value of a portfolio. It is believed that the reporting of effective duration found in the table on the following page quantifies to the fullest extent possible the interest rate risk of the System’s fixed income assets (in thousands):

(continued)

Effective duration of fixed income assets			
Fixed income type	**Fair value June 30, 2022**	**Percent of all fixed income assets**	**Effective duration (years)**
Domestic obligations:			
U.S. treasuries	$ 3,824,614	75.8 %	4.9
Corporates	1,125,699	22.3	5.0
International obligations:			
Corporates	93,118	1.9	4.3
Total	$ 5,043,431	100.0 %	4.9

Foreign Currency Risk: Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The System's currency risk exposures, or exchange rate risks, primarily reside within the System's international equity investment holdings. The System's asset allocation and investment policies allow for active and passive investments in international securities. The System's Board-adopted foreign exchange risk management policy is to minimize risk and protect the investments from negative impact by hedging foreign currency exposures with foreign exchange instruments when market conditions and circumstances are deemed appropriate. Foreign exchange instruments are used to protect the value of noncash investments from currency movements. The System's foreign exchange risk management policy does not quantify limitations on foreign currency-denominated investments. As of June 30, 2022, the System's exposure to foreign currency risk in U.S. Dollars, excluding the 401(k) and 457 plans, is highlighted in the table on the following page (in thousands):

(continued)

Notes to Financial Statements

June 30, 2022

International investment securities at fair value as of June 30, 2022				
Currency	Cash/cash equivalents	Equities	Fixed income	Total
Australian Dollar	$ —	43,778	—	43,778
Brazilian Real	—	16,203	—	16,203
British Pound Sterling	—	108,377	—	108,377
Canadian Dollar	—	34,787	—	34,787
Chilean Peso	—	2,455	—	2,455
Chinese Renminbi Yuan	—	5,933	—	5,933
Colombian Peso	—	773	—	773
Czech Koruna	—	1,532	—	1,532
Danish Krone	—	13,790	—	13,790
Euro	—	274,194	—	274,194
Hong Kong Dollar	158	235,264	—	235,422
Hungarian Forint	—	1,074	—	1,074
Indian Rupee	33	71,261	—	71,294
Indonesian Rupiah	—	5,232	—	5,232
Israeli Shekel	—	3,064	—	3,064
Japanese Yen	—	184,233	—	184,233
Malaysian Ringgit	—	9,052	—	9,052
Mexican Peso	—	7,200	—	7,200
New Taiwan Dollar	—	39,276	—	39,276
New Zealand Dollar	—	737	—	737
Norwegian Krone	—	2,288	—	2,288
Philippine Peso	1	3,295	—	3,296
Polish Zloty	—	3,331	—	3,331
Qatari Riyal	—	3,483	—	3,483
Singapore Dollar	—	19,966	—	19,966
South African Rand	—	12,965	—	12,965
South Korean Won	—	63,719	—	63,719
Swedish Krona	—	39,578	—	39,578
Swiss Franc	—	37,609	—	37,609
Thai Baht	—	13,690	—	13,690
UAE Dirham	—	9,576	—	9,576
Total holdings subject to foreign currency risk	192	1,267,715	—	1,267,907
Investment securities payable in U.S. dollars	—	1,307,439	93,118	1,400,557
Total international investment securities - at fair value	$ 192	2,575,154	93,118	2,668,464

(continued)

(5) *Securities Lending Program*

State statutes and ERS Board policies permit the System to lend its securities to broker/dealers with a simultaneous agreement to return the collateral for the same securities in the future. The System is presently involved in securities lending programs or repurchase and reverse repurchase agreements that act as securities lending programs with major brokerage firms. The System lends equity and fixed income securities for varying terms and receives a fee based on the loaned securities' value. The System reports the net loan fee income earned as investment income on the *Combining Statement of Changes in Fiduciary Net Position*. During a loan, the System continues to receive dividends and interest as the owner of the loaned securities. The brokerage firms pledge collateral securities consisting of U.S. government and agency securities, mortgage-backed securities issued by a U.S. government agency, corporate bonds, and equities. The collateral value must be equal to at least 102% to 109% of the loaned securities' value, depending on the type of collateral security.

Securities loaned totaled approximately $2.3 billion at fair value at June 30, 2022. The collateral value was equal to 103.2% of the loaned securities' value at June 30, 2022. The System's lending collateral was held in the System's name by the tri-party custodian.

Loaned securities are included in the accompanying *Combining Statement of Fiduciary Net Position* since the System maintains ownership. The related collateral securities are not recorded as assets on the System's *Combining Statement of Fiduciary Net Position*, and a corresponding liability is not recorded, since the System is deemed not to have the ability to pledge or trade the collateral securities. In accordance with the criteria set forth in GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions,* the System is deemed not to have the ability to pledge or sell the collateral securities, since the System's lending contracts do not address whether the lender can pledge or sell the collateral securities without a borrower default, the System has not previously demonstrated that ability, and there are no indications of the System's ability to pledge or sell the collateral securities.

(6) *Capital Assets*

The following is a summary of capital assets and depreciation information as of and for the year ended June 30, 2022 (dollars in thousands):

	Balance at June 30, 2021	Additions	Disposals	Balance at June 30, 2022
Capital assets:				
Land	$ 4,350	12	238	4,124
Building	2,800	—	—	2,800
Equipment	2,085	401	—	2,486
Computer software	14,345	—	—	14,345
	23,580	413	238	23,755
Accumulated depreciation for:				
Building	(1,190)	(70)	—	(1,260)
Equipment	(1,657)	(180)	—	(1,837)
Computer software	(14,345)	—	—	(14,345)
	(17,192)	(250)	—	(17,442)
Capital assets, net	$ 6,388	163	238	6,313

(continued)

(7) *Commitments*

As of June 30, 2022, the System had committed to fund certain private equity partnerships for a total capital commitment of approximately $775.8 million. Of this amount, approximately $256.4 million remained unfunded and is not recorded on the System's *Combining Statement of Fiduciary Net Position*.

(8) *Net Pension Liability (Asset) of Employers and Nonemployer - ERS, PSERS, LRS, GJRS, GMPF*

The components of the net pension liability (asset) of the participating employers and nonemployer at June 30, 2022 were as follows (dollars in thousands):

	ERS	PSERS	LRS	GJRS	GMPF
Total pension liability	$20,508,975	$1,263,626	$ 26,697	$ 504,908	$57,458
Plan fiduciary net position	13,830,510	1,026,232	36,031	516,554	34,888
Employers' and nonemployer net pension liability (asset)	$ 6,678,465	$ 237,394	$(9,334)	$(11,646)	$22,570
Plan fiduciary net position as a percentage of the total pension liability	67.44 %	81.21 %	134.96 %	102.31 %	60.72 %

Actuarial assumptions: The total pension liability was determined by an actuarial valuation as of June 30, 2021, using the following actuarial assumptions, applied to all periods included in the measurement:

	ERS	PSERS	LRS	GJRS	GMPF
Inflation	2.5%	2.5%	2.5%	2.5%	2.5%
Salary increases	3.00 - 6.75%, including inflation	n/a	n/a	3.75%, including inflation	n/a
Investment rate of return	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation
Cost-of-living adjustment	1.05% annually	1.5% semi-annually	1.5% semi-annually	N/A	N/A

Mortality rates are as follows:

- The Pub-2010 General Employee Table, with no adjustments, projected generationally with the MP-2019 scale is used for both males and females while in active service.
- The Pub-2010 Family of Tables projected generationally with the MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as on the following tables:

ERS, LRS, GJRS, & GMPF*:

Participant Type	Membership Table	Set Forward (+)/ Setback (-)	Adjustment To Rates
Service Retirees	General Healthy Annuitant	Male: +1; Female: +1	Male: 105%; Female: 108%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Contingent Survivors	Male: +2; Female: +2	Male: 106%; Female: 105%

*Only Service Retiree Participant Type applies to GMPF

(continued)

PSERS:

Participant Type	Membership Table	Set Forward (+)/ Setback (-)	Adjustment To Rates
Service Retirees	General Healthy Below-Median Annuitant	Male: +2; Female: +2	Male: 101%; Female: 103%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Below-Median Contingent Survivors	Male: +2; Female: +2	Male: 104%; Female: 99%

The actuarial assumptions used in the June 30, 2021 valuation were based on the results of an actuarial experience study for the period July 1, 2014 – June 30, 2019. In the experience study, the long-term assumed investment rate of return of 7.00% and the assumed annual rate of inflation of 2.50% were recommended by the actuary and adopted by the Board.

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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

Asset class	Target allocation	Long-term expected real rate of return*
Fixed income	30.00 %	0.20 %
Domestic large equities	46.30	9.40
Domestic small equities	1.20	13.40
International developed market equities	12.30	9.40
International emerging market equities	5.20	11.40
Alternatives	5.00	10.50
Total	100.00 %	

* Rates shown are net of inflation

Discount rate: The discount rate used to measure the total pension liability was 7.00% for all defined benefit pension plans. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer and nonemployer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all 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.

(continued)

Sensitivity of the net pension liability (asset) to changes in the discount rate: The following presents the net pension liability (asset), calculated using the discount rate of 7.00%, as well as what the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate (dollars in thousands):

Employers' and nonemployer net pension liability (asset)	1% Decrease (6.00%)	Current discount rate (7.00%)	1% Increase (8.00%)
Employees' Retirement System	8,890,273	6,678,465	4,818,505
Public School Employment Retirement System	383,919	237,394	115,123
Legislative Retirement System	(6,652)	(9,334)	(11,600)
Georgia Judicial Retirement System	36,971	(11,646)	(53,594)
Georgia Military Pension Fund	30,840	22,570	15,912

Actuarial valuation date: June 30, 2021 is the actuarial valuation date upon which the total pension liability is based. An expected total pension liability is determined as of June 30, 2022 using standard roll-forward techniques. The roll-forward calculation adds the annual normal cost (also called service cost), subtracts the actual benefit payments and refunds for the plan year, and then applies the expected investment rate of return for the year.

(9) *Net OPEB Asset of Employers - SEAD-OPEB*

The components of the net OPEB asset of the participating employers at June 30, 2022 were as follows (dollars in thousands):

Total OPEB liability	$ 966,698
Plan fiduciary net position	1,334,285
Employers' net OPEB asset	$ (367,587)
Plan fiduciary net position as a percentage of the total OPEB liability	138.03 %

Actuarial assumptions: The total OPEB liability was determined by an actuarial valuation as of June 30, 2021, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.5%
Salary increases:	
ERS	3.00% - 6.75%, including inflation
GJRS	3.75%, including inflation
LRS	n/a
Investment rate of return	7.00%, net of OPEB plan investment expense, including inflation
Healthcare cost trend rate	n/a

Mortality rates are as follows:

- The Pub-2010 General Employee Table, with no adjustments, projected generationally with the MP-2019 scale is used for both males and females while in active service.
- The Pub-2010 Family of Tables projected generationally with the MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as noted on the following page:

(continued)

Participant Type	Membership Table	Set Forward (+)/ Setback (-)	Adjustment To Rates
Service Retirees	General Healthy Annuitant	Male: +1; Female: +1	Male: 105%; Female: 108%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Contingent Survivors	Male: +2; Female: +2	Male: 106%; Female: 105%

The actuarial assumptions used in the June 30, 2021 valuation were based on the results of an actuarial experience study for the period July 1, 2014 – June 30, 2019. In the experience study, the long-term assumed investment rate of return of 7.00% and the assumed annual rate of inflation of 2.50% were recommended by the actuary and adopted by the Board.

The long-term expected rate of return on OPEB plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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

Asset class	Target allocation	Long-term expected real rate of return*
Fixed income	30.00 %	0.20 %
Domestic large equities	46.30	9.40
Domestic small equities	1.20	13.40
International developed market equities	12.30	9.40
International emerging market equities	5.20	11.40
Alternatives	5.00	10.50
Total	100.00 %	

* Rates shown are net of inflation.

Discount rate: The discount rate used to measure the total OPEB liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer and nonemployer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the net OPEB asset to changes in the discount rate: The table on the following page presents the net OPEB asset, calculated using the discount rate of 7.00%, as well as what the net OPEB asset would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate (dollars in thousands):

(continued)

	1% Decrease (6.00%)	Current discount rate (7.00%)	1% Increase (8.00%)
Employers' net OPEB asset	$(237,270)	(367,587)	(474,309)

Actuarial valuation date: June 30, 2021 is the actuarial valuation date upon which the total OPEB liability is based. An expected total OPEB liability is determined as of June 30, 2022 using standard roll-forward techniques for the actual total OPEB liability. The roll-forward calculation adds the annual normal cost (also called service cost), subtracts the actual benefit payments and refunds for the plan year, and then applies the expected investment rate of return for the year.

(10) *System Employees' Other Postemployment Benefits (OPEB)*

Certain of the System's employees are members of the SEAD-OPEB and the Georgia State Employees Postretirement Benefit Fund. The notes to the financial statements that follow and required supplementary information on pages 78 and 79 are presented from the perspective of the System as an employer.

General Information about SEAD-OPEB

Plan description: SEAD-OPEB was created in 2007 by the Georgia General Assembly to amend Title 47 of the O.C.G.A., relating to retirement, so as to establish a fund for the provision of term life insurance to retired and vested inactive members of ERS, LRS, and GJRS. The plan is a cost-sharing multiple-employer defined benefit other postemployment benefit plan as defined in GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. The SEAD-OPEB trust fund accumulates the premiums received from the aforementioned retirement plans, including interest earned on deposits and investments of such payments.

Benefits provided: The amount of insurance for a retiree with creditable service prior to April 1, 1964 is the full amount of insurance in effect on the date of retirement. The amount of insurance for a service retiree with no creditable service prior to April 1, 1964 is 70% of the amount of insurance in effect at age 60 or at termination, if earlier. Life insurance proceeds are paid in a lump sum to the beneficiary upon death of the retiree.

Contributions: Georgia law provides that employee contributions to the plan shall be in an amount established by the SEAD Board not to exceed one-half of 1% of the member's earnable compensation. There were no employer contributions required for the fiscal year ended June 30, 2022.

OPEB Asset, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows off Resources Related to OPEB SEAD-OPEB

At June 30, 2022, the System reported an asset of $1,426.3 thousand for its proportionate share of the net OPEB asset. The net OPEB asset was measured as of June 30, 2021. The total OPEB liability used to calculate the net OPEB asset was based on an actuarial valuation as of June 30, 2020. An expected total OPEB liability as of June 30, 2021 was determined using standard roll-forward techniques. The System's proportionate share of the net OPEB asset was based on actual member salaries reported to the SEAD-OPEB plan during the fiscal year ended June 30, 2021. At June 30, 2021, the employer's proportionate share was 0.231607%, which was an increase of 0.019784% from its proportionate share measured as of June 30, 2020. For the year ended June 30, 2022, the System recognized a reduction of OPEB expense of $277.8 thousand.

Actuarial assumptions: The total SEAD-OPEB liability as of June 30, 2021 was determined by an actuarial valuation as of June 30, 2020 using the actuarial assumptions on the following page, applied to all periods included in the measurement:

(continued)

Inflation	2.5%
Salary increase	3.00 - 6.75%, including inflation
Investment rate of return	7.00%, net of OPEB plan investment expense, including inflation
Healthcare cost trend rate	n/a

Mortality rates are as follows:

- The Pub-2010 General Employee Table, with no adjustments, projected generationally with the MP-2019 scale is used for both males and females while in active service.
- The Pub-2010 Family of Tables projected generationally with the MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as follows:

Participant Type	Membership Table	Set Forward (+)/ Setback (-)	Adjustment To Rates
Service Retirees	General Healthy Annuitant	Male: +1; Female: +1	Male: 105%; Female: 108%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Contingent Survivors	Male: +2; Female: +2	Male: 106%; Female: 105%

The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period July 1, 2014 – June 30, 2019.

The long-term expected rate of return on SEAD-OPEB plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected nominal returns, net of plan investment expense and the assumed rate of inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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

Asset class	Target allocation	Long-term expected real rate of return*
Fixed income	30.00 %	(1.50) %
Domestic large equities	46.40	9.20
Domestic small equities	1.10	13.40
International developed market equities	11.70	9.20
International emerging market equities	5.80	10.40
Alternatives	5.00	10.60
Total	100.00 %	

* Rates shown are net of inflation.

Discount rate: The discount rate used to measure the total SEAD-OPEB liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer and nonemployer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the SEAD-OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of

(continued)

current plan members. Therefore, the long-term expected rate of return on SEAD-OPEB plan investments was applied to all periods of projected benefit payments to determine the total SEAD-OPEB liability.

Sensitivity of the System's proportionate share of the net SEAD-OPEB asset to changes in the discount rate: The following presents the System's proportionate share of the net SEAD-OPEB asset calculated using the discount rate of 7.00%, as well as what the System's proportionate share of the net SEAD-OPEB asset would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate (dollars in thousands):

	1% Decrease (6.00%)	Current discount rate (7.00%)	1% Increase (8.00%)
System's proportionate share of the net OPEB asset	$(1,122)	(1,426)	(1,675)

SEAD-OPEB plan fiduciary net position: Detailed information about the SEAD-OPEB plan's fiduciary net position is available in the Annual Comprehensive Financial Report which is publicly available at https://www.ers.ga.gov/post/annual-financial-reports.

General Information about the Georgia State Employees Postemployment Benefit Fund (State OPEB Fund)

Plan description: Employees of State of Georgia (State) organizations as defined in §45-18-25 of the Official Code of Georgia Annotated (O.C.G.A.) are provided OPEB through the State OPEB Fund - a cost-sharing multiple-employer defined benefit postemployment healthcare plan, reported as an employee trust fund and administered by a Board of Community Health (Board). Title 45 of the O.C.G.A. assigns the authority to establish and amend the benefit terms of the group health plan to the Board.

Benefits provided: The State OPEB Fund provides healthcare benefits for retirees and their dependents due under the group health plan for employees of State organizations (including technical colleges) and other entities authorized by law to contract with the Department of Community Health (DCH) for inclusion in the plan. Retiree medical eligibility is attained when an employee retires and is immediately eligible to draw a retirement annuity from ERS, LRS, GJRS, Teachers Retirement System (TRS) or PSERS. If elected, dependent coverage starts on the same day as retiree coverage. Medicare-eligible retirees are offered Standard and Premium Medicare Advantage plan options. Non-Medicare-eligible retiree plan options include Health Reimbursement Arrangement (HRA), Health Maintenance Organization (HMO) and a High Deductible Health Plan (HDHP). The State OPEB Fund also pays for administrative expenses of the fund. By law, no other use of the assets of the State OPEB Fund is permitted.

Contributions: As established by the DCH Board of Trustees, the State OPEB Fund is funded on a pay-as-you-go basis, with additional contributions by the State as available and deemed necessary; that is, annual cost of providing benefits will be financed in the same year as claims occur. Contributions to the State OPEB Fund from the System were $283.6 thousand for the year ended June 30, 2022. Active employees are not required to contribute to the State OPEB Fund.

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to State OPEB Fund

At June 30, 2022, the System reported a liability of approximately $544.8 thousand for its proportionate share of the net OPEB liability. The net OPEB liability was measured as of June 30, 2021. The total OPEB liability used to calculate the net OPEB liability was based on an actuarial valuation as of June 30, 2020. An expected total OPEB liability as of June 30, 2021 was determined using standard roll-forward techniques. The System's proportionate

(continued)

share of the net OPEB liability was actuarially determined based on employer contributions during the fiscal year ended June 30, 2021. At June 30, 2021, the System's proportionate share was 0.198205%, which was a increase of 0.006650% from its proportionate share measured as of June 30, 2020. For the year ended June 30, 2022, the System recognized a reduction in OPEB expense of $1,169.5 thousand.

Actuarial assumptions: The total OPEB liability as of June 30, 2021 was determined by an actuarial valuation as of June 30, 2020 using the following actuarial assumptions and other inputs, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2021:

Inflation	2.5%
Salary increase	3.00 - 6.75%, including inflation
Investment rate of return	7.00%, compounded annually, net of OPEB plan investment expense, including inflation
Healthcare trend rate:	
Pre-Medicare Eligible	6.75%
Medicare Eligible	5.13%
Ultimate trend rate:	
Pre-Medicare Eligible	4.50%
Medicare Eligible	4.50%
Year of Ultimate trend rate	
Pre-Medicare Eligible	2029
Medicare Eligible	2023

Mortality rates were based on the Pub-2010 General Employee Mortality Table for Males or Females, as appropriate, with no adjustments and with the MP-2019 Projection scale applied generationally as follows:

For ERS, JRS and LRS members: Post-retirement mortality rates for service retirements were based on the Pub-2010 General Healthy Annuitant Mortality Table (ages set forward one year and adjusted 105% for males and 108% for females) with the MP-2019 Projection scale applied generationally. Post-retirement mortality rates for disability retirements were based on the Pub-2010 General Disabled Mortality Table (ages set back three years for males and adjusted 103% for males and 106% for females) with the MP-2019 Projection scale applied generationally. Post-retirement mortality rates for beneficiaries were based on the Pub-2010 General Contingent Survivor Mortality Table (ages set forward two years and adjusted 106% for males and 108% for females) with the MP-2019 Projection scale applied generationally.

The actuarial assumptions used in the June 30, 2020 valuation were based on the results of the most recent actuarial experience studies for the pension systems, which covered the five-year period ending June 30, 2019, and was adopted by the ERS Board on December 17, 2020.

The remaining actuarial assumptions (e.g., initial per capita costs, health care cost trends, rate of plan participation, rates of plan election, etc.) used in the June 30, 2020 valuation were based on a review of recent plan experience done concurrently with the June 30, 2020 valuation.

Projection of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculation.

The long-term expected rate of return on OPEB plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected nominal returns, net of investment expense and the assumed rate of inflation) are developed for each major asset class. These ranges

(continued)

are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset class	Target allocation	Long-term expected real rate of return*
Fixed income	30.00 %	0.14 %
Equities	70.00	9.20
Total	100.00 %	

* Rates shown are net of inflation.

Discount rate: The discount rate used to measure the total State OPEB liability was 7.00%, as compared with last year's discount rate of 7.06%. The projection of cash flows used to determine the discount rate assumed that contributions from members and from the employer will be made at the current level as averaged over the last five years, adjusted for annual projected changes in headcount. Based on those assumptions, the State OPEB fund's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on State OPEB plan investments was applied to all periods of projected benefit payments to determine the total State OPEB liability.

Sensitivity of the System's proportionate share of the net State OPEB liability to changes in the discount rate: The following presents the System's proportionate share of the net OPEB liability calculated using the discount rate of 7.00%, as well as what the System's proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current discount rate (dollars in thousands):

	1% Decrease (6.00%)	Current discount rate (7.00%)	1% Increase (8.00%)
System's proportionate share of the net OPEB liability	$959	545	187

Sensitivity of the System's proportionate share of the net State OPEB liability to changes in the healthcare cost trend rates: The following presents the System's proportionate share of the net OPEB liability, as well as what the System's proportionate share of the net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates (dollars in thousands):

	1% Decrease	Current healthcare cost trend rate	1% Increase
System's proportionate share of the net OPEB liability	$127	545	1,034

State OPEB plan fiduciary net position: Detailed information about the State OPEB Benefit plan's fiduciary net position is available in the Annual Comprehensive Financial Report, which is publicly available at https://sao.georgia.gov/swar/acfr.

(continued)

Deferred Outflows of Resources and Deferred Inflows of Resources for SEAD-OPEB and State OPEB Fund

At June 30, 2022, the System reported deferred outflows of resources and deferred inflows of resources related to SEAD-OPEB and the State OPEB Fund from the following sources (dollars in thousands):

	SEAD-OPEB plan	State OPEB fund	Total
Deferred outflows of resources:			
Change of assumptions	$ —	28	28
Net difference between projected and actual earnings on plan investments	—	—	—
Change in proportion and differences between the System's contributions and proportionate share of contributions	—	229	229
System's contributions subsequent to the measurement date	—	284	284
Total deferred outflows of resources	$ —	541	541

	SEAD-OPEB plan	State OPEB fund	Total
Deferred inflows of resources:			
Difference between expected and actual experience	$ 4	1,467	1,471
Change of assumptions	44	574	619
Net difference between projected and actual earnings on plan investments	476	95	571
Change in proportion and differences between the System's contributions and proportionate share of contributions	33	15	47
Total deferred inflows of resources	$ 558	2,151	2,709

SEAD-OPEB amounts reported as deferred outflows of resources and deferred inflows of resources related to SEAD-OPEB will be recognized in OPEB expense as noted as follows (dollars in thousands):

Year ended June 30:	
2023	($196)
2024	(120)
2025	(116)
2026	(126)

(continued)

State OPEB Fund employer contributions subsequent to the measurement date of $283.6 thousand are reported as deferred outflows of resources and will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to State OPEB Fund will be recognized in OPEB expense as follows (dollars in thousands):

Year ended June 30:	
2023	($945)
2024	(485)
2025	(323)
2026	(141)

Required Supplementary Information (UNAUDITED)

Schedules of Employers' and Nonemployer Contributions - Defined Benefit Plans

Year ended June 30, 2022
(In thousands)

	Year ended	Actuarially determined contribution (a)	Contributions in relation to the actuarially determined contribution (b)	Contribution deficiency (excess) (a-b)	Covered payroll (c)	Contributions as a percentage of covered payroll (b/c)
Employees' Retirement System	6/30/2013	$ 358,376	358,992	(616)	2,335,773	15.4 %
	6/30/2014	428,982	429,752	(770)	2,335,773	18.4
	6/30/2015	517,220	518,163	(943)	2,353,225	22.0
	6/30/2016	595,124	595,566	(442)	2,390,457	24.9
	6/30/2017	624,623	625,281	(658)	2,565,918	24.4
	6/30/2018	650,073	652,167	(2,094)	2,635,896	24.7
	6/30/2019	649,209	649,209	—	2,615,491	24.8
	6/30/2020	643,857	643,857	—	2,614,856	24.6
	6/30/2021	615,967	615,967	—	2,480,422	24.8
	6/30/2022	619,723	619,723	—	2,577,449	24.0
Public School Employees Retirement System[1]	6/30/2013	24,829	24,829	—	n/a	n/a
	6/30/2014	27,160	27,160	—	n/a	n/a
	6/30/2015	28,461	28,461	—	n/a	n/a
	6/30/2016	28,580	28,580	—	n/a	n/a
	6/30/2017	26,277	26,277	—	n/a	n/a
	6/30/2018	29,276	29,276	—	n/a	n/a
	6/30/2019	30,263	30,263	—	n/a	n/a
	6/30/2020	32,496	32,496	—	n/a	n/a
	6/30/2021	30,264	30,264	—	n/a	n/a
	6/30/2022	32,491	32,491	—	n/a	n/a
Legislative Retirement System[2]	6/30/2013	—	128	(128)	3,867	3.3
	6/30/2014	—	45	(45)	3,850	1.2
	6/30/2015	—	—	—	3,764	n/a
	6/30/2016	—	—	—	3,875	n/a
	6/30/2017	—	—	—	3,830	n/a
	6/30/2018	—	—	—	3,844	n/a
	6/30/2019	—	—	—	3,833	n/a
	6/30/2020	—	—	—	3,798	n/a
	6/30/2021	—	—	—	3,371	n/a
	6/30/2022	—	—	—	4,024	n/a

(continued)

Required Supplementary Information (UNAUDITED)

Schedules of Employers' and Nonemployer Contributions - Defined Benefit Plans

Year ended June 30, 2022
(In thousands)

	Year ended	Actuarially determined contribution (a)	Contributions in relation to the actuarially determined contribution (b)	Contribution deficiency (excess) (a-b)	Covered payroll (c)	Contributions as a percentage of covered payroll (b/c)
Georgia Judicial Retirement System	6/30/2013	$ 2,279	2,279	—	52,807	4.3 %
	6/30/2014	2,375	2,375	—	54,787	4.3
	6/30/2015	4,261	4,261	—	54,272	7.9
	6/30/2016	7,623	7,623	—	57,401	13.3
	6/30/2017	6,684	6,684	—	59,695	11.2
	6/30/2018	6,566	6,566	—	60,572	10.8
	6/30/2019	5,254	5,254	—	60,532	8.7
	6/30/2020	6,464	6,464	—	63,835	10.1
	6/30/2021	6,070	6,070	—	63,421	9.6
	6/30/2022	9,962	9,962	—	62,426	16.0
Georgia Military Pension Fund[3]	6/30/2013	1,703	1,703	—	n/a	n/a
	6/30/2014	1,892	1,892	—	n/a	n/a
	6/30/2015	1,893	1,893	—	n/a	n/a
	6/30/2016	1,990	1,990	—	n/a	n/a
	6/30/2017	2,018	2,018	—	n/a	n/a
	6/30/2018	2,377	2,377	—	n/a	n/a
	6/30/2019	2,537	2,537	—	n/a	n/a
	6/30/2020	2,611	2,611	—	n/a	n/a
	6/30/2021	2,684	2,684	—	n/a	n/a
	6/30/2022	2,697	2,697	—	n/a	n/a
State Employees' Assurance Department Retired and Vested Inactive Members Trust Fund	6/30/2013	5,009	5,009	—	1,855,185	0.3
	6/30/2014	—	—	—	n/a	n/a
	6/30/2015	—	—	—	n/a	n/a
	6/30/2016	—	—	—	n/a	n/a
	6/30/2017	—	—	—	n/a	n/a
	6/30/2018	—	—	—	n/a	n/a
	6/30/2019	—	—	—	n/a	n/a
	6/30/2020	—	—	—	n/a	n/a
	6/30/2021	—	—	—	n/a	n/a
	6/30/2022	—	—	—	n/a	n/a

This data, except for annual covered payroll, was provided by the System's actuary.

[1] No statistics regarding covered payroll are available. Contributions are not based upon members' salaries but are simply $4.00 per member, per month, for nine months, each fiscal year if hired prior to July 1, 2012 and $10 per month, per member, for nine months, if hired after July 1,2012.
[2] The Georgia General Assembly made contributions in some years that were not required.
[3] No statistics regarding covered payroll are available. Active and inactive plan member information is maintained by the Georgia Department of Defense.

See accompanying notes to required supplementary schedules and accompanying independent auditors' report.

Required Supplementary Information (UNAUDITED)

Schedules of Employers' and Nonemployer Net Pension/OPEB Liability (Asset) and Related Ratios – Defined Benefit Plans

June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Employees' Retirement System:									
Total pension liability	$20,508,975	18,886,809	17,717,243	17,744,003	17,628,219	17,159,634	17,103,987	17,019,362	17,042,149
Plan fiduciary net position	13,830,510	16,547,905	13,502,286	13,617,472	13,517,186	13,098,299	12,373,567	12,967,964	13,291,531
Employers' and nonemployer net pension liability	$ 6,678,465	2,338,904	4,214,957	4,126,531	4,111,033	4,061,335	4,730,420	4,051,398	3,750,618
Plan fiduciary net position as a percentage of the total pension liability	67.44 %	87.62 %	76.21 %	76.74 %	76.68 %	76.33 %	72.34 %	76.20 %	77.99 %
Covered payroll	$ 2,577,449	2,480,422	2,614,856	2,615,491	2,635,896	2,565,918	2,390,457	2,353,225	2,335,773
Employers' and nonemployer net pension liability as a percentage of covered payroll	259.11 %	94.29 %	161.19 %	157.77 %	155.96 %	158.28 %	197.89 %	172.16 %	160.57 %
Public School Employees Retirement System:									
Total pension liability	$ 1,263,626	1,224,416	1,134,724	1,107,495	1,072,165	1,013,163	992,292	946,200	930,745
Plan fiduciary net position	1,026,232	1,199,970	958,248	941,587	914,138	868,134	803,775	823,150	821,733
Employers' and nonemployer net pension liability	$ 237,394	24,446	176,476	165,908	158,027	145,029	188,517	123,050	109,012
Plan fiduciary net position as a percentage of the total pension liability	81.21 %	98.00 %	84.45 %	85.02 %	85.26 %	85.69 %	81.00 %	87.00 %	88.29 %
Covered payroll	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Employers' and nonemployer net pension liability as a percentage of covered payroll	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Legislative Retirement System:									
Total pension liability	$ 26,697	26,695	26,081	26,166	26,304	25,898	26,142	25,271	25,216
Plan fiduciary net position	36,031	42,713	34,568	34,540	34,189	32,981	30,975	32,359	32,794
Employer's net pension asset	$ (9,334)	(16,018)	(8,487)	(8,374)	(7,885)	(7,083)	(4,833)	(7,088)	(7,578)
Plan fiduciary net position as a percentage of the total pension liability	134.96 %	160.00 %	132.54 %	132.00 %	129.98 %	127.35 %	118.49 %	128.05 %	130.05 %
Covered payroll	4,024	3,371	3,798	n/a	n/a	n/a	n/a	n/a	n/a
Employer's net pension asset as a percentage of covered payroll	(231.96)%	(475.17)%	(223.46)%	n/a	n/a	n/a	n/a	n/a	n/a
Georgia Judicial Retirement System:									
Total pension liability	$ 504,908	485,387	455,656	440,041	428,624	394,736	368,669	357,081	350,443
Plan fiduciary net position	516,554	605,426	485,930	479,372	466,657	441,182	403,011	404,852	400,790
Employers' and nonemployer net pension asset	$ (11,646)	(120,039)	(30,274)	(39,331)	(38,033)	(46,446)	(34,342)	(47,771)	(50,347)
Plan fiduciary net position as a percentage of the total pension liability	102.31 %	124.73 %	106.64 %	108.94 %	108.87 %	111.77 %	109.32 %	113.38 %	114.37 %
Covered payroll	$ 62,426	63,421	63,835	60,532	60,572	59,695	57,401	54,272	54,787
Employers' and nonemployer net pension asset as a percentage of covered payroll	(18.66)%	(189.27)%	(47.43)%	(64.98)%	(62.79)%	(77.81)%	(59.83)%	(88.02)%	(91.90)%

(continued)

Required Supplementary Information (UNAUDITED)

Schedules of Employers' and Nonemployer Net Pension/OPEB Liability (Asset) and Related Ratios – Defined Benefit Plans

June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Georgia Military Pension Fund:									
Total pension liability	$ 57,458	54,739	47,883	45,639	43,204	40,085	36,950	33,343	31,511
Plan fiduciary net position	34,888	38,677	28,967	26,417	23,653	20,711	17,717	16,712	15,251
Employers' net pension liability	$ 22,570	16,062	18,916	19,222	19,551	19,374	19,233	16,631	16,260
Plan fiduciary net position as a percentage of the total pension liability	60.72 %	70.66 %	60.50 %	57.88 %	54.75 %	51.67 %	47.95 %	50.12 %	48.40 %
Covered payroll	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Employers' net pension liability as a percentage of covered payroll	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
State Employees' Assurance Department - Retired and Vested Inactive Members Trust Fund:									
Total OPEB liability	$ 966,698	950,995	972,700	951,091	918,816	861,346	—	—	—
Plan fiduciary net position	1,334,285	1,566,821	1,256,718	1,233,856	1,189,462	1,121,251	—	—	—
Employer's net OPEB asset	$ (367,587)	(615,826)	(284,018)	(282,765)	(270,646)	(259,905)	—	—	—
Plan fiduciary net position as a percentage of the total OPEB liability	138.03 %	164.76 %	129.20 %	129.73 %	129.46 %	130.17 %	— %	— %	— %
Covered payroll	$ 982,303	1,030,717	1,135,433	1,211,274	1,328,485	1,383,860	—	—	—
Employers' net OPEB asset as a percentage of covered payroll	(37.42)%	(59.75)%	(25.01)%	(23.34)%	(20.37)%	(18.78)%	— %	— %	— %

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

See accompanying notes to required supplementary schedule and accompanying independent auditors' report.

Required Supplementary Information (UNAUDITED)

Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset) – Defined Benefit Plans

June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Employee's Retirement System:									
Total pension liability:									
Service cost	$ 142,949	129,500	132,004	135,679	129,294	125,910	143,043	145,045	150,075
Interest	1,269,224	1,240,748	1,240,887	1,233,882	1,233,689	1,230,175	1,225,650	1,227,846	1,224,380
Benefit changes	67,351	—	65,702	42,097	31,097	30,563	—	—	—
Differences between expected and actual experience	(107,167)	86,061	25,736	155,573	180,655	72,315	(238)	(53,950)	—
Changes of assumptions	1,759,895	1,154,636	—	—	314,733	—	70,890	—	—
Benefit payments	(1,502,904)	(1,434,775)	(1,484,445)	(1,443,756)	(1,413,298)	(1,394,283)	(1,347,633)	(1,334,278)	(1,305,998)
Refunds of contributions	(7,182)	(6,604)	(6,644)	(7,691)	(7,585)	(9,033)	(7,087)	(7,450)	(8,757)
Net change in total pension liability	1,622,166	1,169,566	(26,760)	115,784	468,585	55,647	84,625	(22,787)	59,700
Total pension liability-beginning	18,886,809	17,717,243	17,744,003	17,628,219	17,159,634	17,103,987	17,019,362	17,042,149	16,982,449
Total pension liability-end (a)	20,508,975	18,886,809	17,717,243	17,744,003	17,628,219	17,159,634	17,103,987	17,019,362	17,042,149
Plan fiduciary net position:									
Contributions-employer	611,410	606,919	634,108	638,989	639,302	613,201	583,082	505,668	418,807
Contributions-nonemployer	8,313	9,048	9,749	10,220	12,865	12,080	12,484	12,495	10,945
Contributions-member	36,130	35,027	35,837	36,252	37,130	35,863	31,961	33,713	32,423
Administrative expense allotment	10	10	10	10	10	10	10	10	—
Net investment income (loss)	(1,855,595)	3,843,581	703,840	873,404	1,166,013	1,475,626	141,292	474,147	2,021,748
Benefit payments	(1,502,904)	(1,434,775)	(1,484,445)	(1,443,756)	(1,413,298)	(1,394,283)	(1,347,633)	(1,334,278)	(1,305,998)
Administrative expense	(7,577)	(7,587)	(7,641)	(7,142)	(8,056)	(8,732)	(8,506)	(7,872)	(7,440)
Refunds of contributions	(7,182)	(6,604)	(6,644)	(7,691)	(7,585)	(9,033)	(7,087)	(7,450)	(8,757)
Other[1]	—	—	—	—	(7,494)	—	—	—	—
Net change in plan fiduciary net position	(2,717,395)	3,045,619	(115,186)	100,286	418,887	724,732	(594,397)	(323,567)	1,161,728
Plan fiduciary net position-beginning	16,547,905	13,502,286	13,617,472	13,517,186	13,098,299	12,373,567	12,967,964	13,291,531	12,129,803
Plan fiduciary net position-end (b)	13,830,510	16,547,905	13,502,286	13,617,472	13,517,186	13,098,299	12,373,567	12,967,964	13,291,531
Net pension liability-end (a)-(b)	$ 6,678,465	2,338,904	4,214,957	4,126,531	4,111,033	4,061,335	4,730,420	4,051,398	3,750,618

[1] The System is a participating employer in the Georgia State Employees Postemployment Benefit Fund and the State Employees' Assurance Department Retired and Vested Inactive Members Trust Fund. Pursuant to the requirements of GASB Statement No. 75, the fiscal year 2018 beginning Fiduciary Net Position was restated by $7,494,507. The restatement of net position was made for reporting purposes to reflect the impact of recording the initial deferred outflows of resources, net OPEB liability, and net OPEB asset. For actuarial purposes, this adjustment was recognized in fiscal year 2018 and beginning fiduciary net position was not restated.

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

See accompanying notes to required supplementary schedule and accompanying independent auditors' report.

(continued)

Required Supplementary Information (UNAUDITED)

Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset) – Defined Benefit Plans

June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Public School Employees Retirement System:									
Total pension liability:									
Service cost	$ 14,109	14,332	14,017	13,762	13,180	12,788	11,952	12,088	11,049
Interest	83,301	80,388	78,414	75,923	73,643	72,157	68,776	67,652	66,143
Benefit changes	16,044	—	13,680	18,050	17,289	—	—	—	—
Differences between expected and actual experience	(5,427)	(12,739)	(12,220)	(8,159)	(3,943)	(3,665)	(9,483)	(6,858)	—
Changes of assumptions	—	74,759	—	—	21,354	—	33,215	—	—
Benefit payments	(68,203)	(66,415)	(66,090)	(63,637)	(61,820)	(59,378)	(57,903)	(56,972)	(56,189)
Refunds of contributions	(614)	(633)	(572)	(609)	(701)	(1,031)	(465)	(455)	(514)
Net change in total pension liability	39,210	89,692	27,229	35,330	59,002	20,871	46,092	15,455	20,489
Total pension liability-beginning	1,224,416	1,134,724	1,107,495	1,072,165	1,013,163	992,292	946,200	930,745	910,256
Total pension liability-end (a)	1,263,626	1,224,416	1,134,724	1,107,495	1,072,165	1,013,163	992,292	946,200	930,745
Plan fiduciary net position:									
Contributions-employer	32,491	30,264	32,496	30,263	29,276	26,277	28,580	28,461	27,160
Contributions-member	2,256	2,222	2,338	2,256	2,162	2,084	1,925	1,800	1,659
Net investment income (loss)	(138,145)	277,705	49,913	60,553	78,418	97,715	9,809	30,129	123,799
Benefit payments	(68,203)	(66,415)	(66,090)	(63,637)	(61,820)	(59,378)	(57,903)	(56,972)	(56,189)
Administrative expense	(1,523)	(1,421)	(1,424)	(1,377)	(1,331)	(1,308)	(1,321)	(1,545)	(1,450)
Refunds of contributions	(614)	(633)	(572)	(609)	(701)	(1,031)	(465)	(456)	(514)
Net change in plan fiduciary net position	(173,738)	241,722	16,661	27,449	46,004	64,359	(19,375)	1,417	94,465
Plan fiduciary net position-beginning	1,199,970	958,248	941,587	914,138	868,134	803,775	823,150	821,733	727,268
Plan fiduciary net position-end (b)	1,026,232	1,199,970	958,248	941,587	914,138	868,134	803,775	823,150	821,733
Net pension liability-end (a)-(b)	$ 237,394	24,446	176,476	165,908	158,027	145,029	188,517	123,050	109,012

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

See accompanying notes to required supplementary schedule and accompanying independent auditors' report.

(continued)

Required Supplementary Information (UNAUDITED)

Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset) – Defined Benefit Plans

June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Legislative Retirement System:									
Total pension liability:									
Service cost	$ 461	366	372	366	359	357	331	338	344
Interest	1,804	1,840	1,844	1,850	1,875	1,892	1,829	1,824	1,799
Benefit changes	—	—	—	—	—	—	—	—	—
Differences between expected and actual experience	(412)	(643)	(485)	(428)	(481)	(655)	(465)	(325)	—
Changes of assumptions	—	813	—	—	447	—	938	—	—
Benefit payments	(1,818)	(1,720)	(1,795)	(1,856)	(1,772)	(1,763)	(1,724)	(1,756)	(1,801)
Refunds of contributions	(33)	(42)	(21)	(70)	(22)	(75)	(38)	(26)	(30)
Net change in total pension liability	2	614	(85)	(138)	406	(244)	871	55	312
Total pension liability-beginning	26,695	26,081	26,166	26,304	25,898	26,142	25,271	25,216	24,904
Total pension liability-end (a)	26,697	26,695	26,081	26,166	26,304	25,898	26,142	25,271	25,216
Plan fiduciary net position:									
Contributions-employer	—	—	—	—	—	—	—	—	45
Contributions-member	344	290	325	339	323	327	328	327	282
Net investment income (loss)	(4,848)	9,928	1,824	2,228	2,962	3,741	363	1,189	4,969
Benefit payments	(1,818)	(1,720)	(1,795)	(1,856)	(1,772)	(1,763)	(1,724)	(1,756)	(1,801)
Administrative expense	(327)	(311)	(305)	(290)	(283)	(224)	(313)	(169)	(152)
Refunds of contributions	(33)	(42)	(21)	(70)	(22)	(75)	(38)	(26)	(30)
Net change in plan fiduciary net position	(6,682)	8,145	28	351	1,208	2,006	(1,384)	(435)	3,313
Plan fiduciary net position-beginning	42,713	34,568	34,540	34,189	32,981	30,975	32,359	32,794	29,481
Plan fiduciary net position-end (b)	36,031	42,713	34,568	34,540	34,189	32,981	30,975	32,359	32,794
Net pension asset-end (a)-(b)	$ (9,334)	(16,018)	(8,487)	(8,374)	(7,885)	(7,083)	(4,833)	(7,088)	(7,578)

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

See accompanying notes to required supplementary schedule and accompanying independent auditors' report.

(continued)

Required Supplementary Information (UNAUDITED)

Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset) – Defined Benefit Plans

June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Georgia Judicial Retirement System:									
Total pension liability:									
Service cost	$ 14,428	13,494	13,375	13,350	13,019	12,514	12,713	7,751	7,584
Interest	32,785	32,131	31,047	30,267	28,666	26,826	26,058	25,566	24,530
Benefit changes	760	—	693	1,065	3,442	3,419	—	—	—
Differences between expected and actual experience	5,621	(2,712)	(24)	(5,250)	6,379	5,258	(3,603)	(7,542)	—
Changes of assumptions	—	17,839	—	—	7,466	—	(4,308)	—	—
Benefit payments	(34,050)	(30,958)	(29,263)	(27,462)	(24,934)	(21,784)	(19,011)	(18,365)	(17,441)
Refunds of contributions	(23)	(63)	(213)	(553)	(150)	(166)	(261)	(772)	(22)
Net change in total pension liability	19,521	29,731	15,615	11,417	33,888	26,067	11,588	6,638	14,651
Total pension liability-beginning	485,387	455,656	440,041	428,624	394,736	368,669	357,081	350,443	335,792
Total pension liability-end (a)	504,908	485,387	455,656	440,041	428,624	394,736	368,669	357,081	350,443
Plan fiduciary net position:									
Contributions-employer	7,585	3,830	4,022	3,117	4,725	4,081	4,754	2,696	1,373
Contributions-nonemployer	2,377	2,240	2,442	2,137	1,841	2,603	2,869	1,564	1,002
Contributions-member	5,466	5,190	5,005	5,469	4,910	4,906	5,507	5,061	4,731
Net investment income (loss)	(69,334)	140,103	25,414	30,827	39,877	49,259	5,055	14,697	60,012
Benefit payments	(34,050)	(30,958)	(29,263)	(27,462)	(24,934)	(21,784)	(19,011)	(18,365)	(17,441)
Administrative expense	(893)	(846)	(849)	(820)	(794)	(728)	(754)	(819)	(754)
Refunds of contributions	(23)	(63)	(213)	(553)	(150)	(166)	(261)	(772)	(22)
Net change in plan fiduciary net position	(88,872)	119,496	6,558	12,715	25,475	38,171	(1,841)	4,062	48,901
Plan fiduciary net position-beginning	605,426	485,930	479,372	466,657	441,182	403,011	404,852	400,790	351,889
Plan fiduciary net position-end (b)	516,554	605,426	485,930	479,372	466,657	441,182	403,011	404,852	400,790
Net pension asset-end (a)-(b)	$ (11,646)	(120,039)	(30,274)	(39,331)	(38,033)	(46,446)	(34,342)	(47,771)	(50,347)

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

See accompanying notes to required supplementary schedule and accompanying independent auditors' report.

(continued)

Required Supplementary Information (UNAUDITED)

Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset) – Defined Benefit Plans

June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Georgia Military Pension Fund:									
Total pension liability:									
Service cost	$ 155	106	95	97	84	89	73	73	73
Interest	3,778	3,443	3,284	3,109	2,964	2,732	2,465	2,330	2,223
Benefit changes	—	—	—	—	—	—	—	—	—
Differences between expected and actual experience	313	142	162	449	116	1,356	950	326	—
Changes of assumptions	—	4,593	—	—	1,093	—	1,082	—	—
Benefit payments	(1,527)	(1,428)	(1,297)	(1,220)	(1,138)	(1,042)	(963)	(897)	(841)
Net change in total pension liability	2,719	6,856	2,244	2,435	3,119	3,135	3,607	1,832	1,455
Total pension liability-beginning	54,739	47,883	45,639	43,204	40,085	36,950	33,343	31,511	30,056
Total pension liability-end (a)	57,458	54,739	47,883	45,639	43,204	40,085	36,950	33,343	31,511
Plan fiduciary net position:									
Contributions-employer	2,697	2,684	2,611	2,537	2,377	2,018	1,990	1,893	1,892
Contributions-member	—	—	—	—	—	—	—	—	—
Net investment income (loss)	(4,693)	8,709	1,485	1,683	1,928	2,262	240	585	2,179
Benefit payments	(1,527)	(1,428)	(1,297)	(1,220)	(1,138)	(1,042)	(963)	(896)	(841)
Administrative expense	(266)	(255)	(249)	(236)	(225)	(244)	(262)	(121)	(110)
Net change in plan fiduciary net position	(3,789)	9,710	2,550	2,764	2,942	2,994	1,005	1,461	3,120
Plan fiduciary net position-beginning	38,677	28,967	26,417	23,653	20,711	17,717	16,712	15,251	12,131
Plan fiduciary net position-end (b)	34,888	38,677	28,967	26,417	23,653	20,711	17,717	16,712	15,251
Net pension liability-end (a)-(b)	$ 22,570	16,062	18,916	19,222	19,551	19,374	19,233	16,631	16,260

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

See accompanying notes to required supplementary schedule and accompanying independent auditors' report.

(continued)

Required Supplementary Information (UNAUDITED)

Schedules of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset) – Defined Benefit Plans

June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017
Statement Employees' Assurance Department Retired and Vested Inactive Members Trust Fund:						
Total OPEB Liability:						
Service cost	$ 2,551	2,957	3,237	3,617	3,695	3,959
Interest	64,643	69,011	67,796	65,708	63,242	61,076
Benefit changes	—	—	—	—	—	—
Differences between expected and actual experience	3,562	(2,342)	(4,670)	366	4,697	—
Changes of assumptions	—	(36,651)	—	—	22,085	—
Death benefits	(55,053)	(54,680)	(44,754)	(37,416)	(36,249)	(36,058)
Refunds of contributions	—	—	—	—	—	—
Net change in total OPEB liability	15,703	(21,705)	21,609	32,275	57,470	28,977
Total OPEB liability-beginning	950,995	972,700	951,091	918,816	861,346	832,369
Total OPEB liability-end	966,698	950,995	972,700	951,091	918,816	861,346
Plan fiduciary net position:						
Contributions - employer	—	—	—	—	—	1
Insurance premiums - member	2,641	2,817	3,088	3,328	3,599	3,793
Net investment income (loss)	(179,369)	362,663	65,248	79,193	101,542	125,550
Death benefits	(55,053)	(54,680)	(44,754)	(37,416)	(36,249)	(36,058)
Administrative expense	(755)	(697)	(720)	(716)	(681)	(576)
Other	—	—	—	5	—	—
Net change in plan fiduciary net position	(232,536)	310,103	22,862	44,394	68,211	92,710
Plan fiduciary net position-beginning	1,566,821	1,256,718	1,233,856	1,189,462	1,121,251	1,028,541
Plan fiduciary net position-end (b)	1,334,285	1,566,821	1,256,718	1,233,856	1,189,462	1,121,251
Net OPEB asset-end (a)-(b)	$ (367,587)	(615,826)	(284,018)	(282,765)	(270,646)	(259,905)

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

See accompanying notes to required supplementary schedule and accompanying independent auditors' report.

Required Supplementary Information (UNAUDITED)

Schedule of Investment Returns

Year ended June 30, 2022

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Pooled Investment Fund:									
Annual money-weighted rate of return, net of investment expense	(18.7)%	19.4%	(3.6)%	(1.8)%	0.6%	2.9%	(7.2)%	(5.3)%	6.0%

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

See accompanying notes to required supplementary schedule and accompanying independent auditors' report.

Required Supplementary Information (UNAUDITED)

Schedules of the System's Proportionate Share of the Net OPEB Liability (Asset)

Year ended June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018
SEAD-OPEB:					
System's proportion of the net OPEB asset	0.231607 %	0.211823 %	0.201267 %	0.200064 %	0.192864 %
System's proportionate share of the net OPEB asset	$ (1,426)	$ (602)	$ (569)	$ (541)	$ (501)
System's covered payroll	2,511	2,524	2,567	2,770	2,809
System's proportionate share of the net OPEB asset as a percentage of its covered payroll	(56.81) %	(23.84) %	(22.17) %	(19.55) %	(17.85) %
Plan fiduciary net position as a percentage of the total OPEB asset	164.76 %	129.2 %	129.73 %	129.46 %	130.17 %
State OPEB Fund:					
System's proportion of the net OPEB liability	0.198205 %	0.191555 %	0.189291 %	0.181584 %	0.185830 %
System's proportionate share of the net OPEB liability	$ 545	$ 2,156	$ 2,350	$ 4,749	$ 7,571
System's covered payroll	5,713	5,700	5,578	5,415	5,265
System's proportionate share of the net OPEB liability as a percentage of its covered payroll	9.53 %	37.82 %	42.13 %	87.71 %	143.81 %
System's fiduciary net position as a percentage of the total OPEB liability	87.58 %	59.71 %	56.57 %	31.48 %	17.34 %

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

See accompanying notes to required supplementary schedules and accompanying independent auditors' report.

Required Supplementary Information (UNAUDITED)

Schedules of the System's Contributions to OPEB Plans

Year ended June 30, 2022
(In thousands)

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018
SEAD-OPEB:					
Contractually required contribution*	$ —	$ —	$ —	$ —	$ —
Contributions in relation to the contractually required contribution	—	—	—	—	—
Contribution deficiency (excess)	—	—	—	—	—
System's covered payroll	2,607	2,511	2,524	2,567	2,770
Contributions as a percentage of a covered payroll	— %	— %	— %	— %	— %
State OPEB Fund:					
Contractually required contribution	$ 284	$ 301	$ 288	$ 1,012	$ 905
Contributions in relation to the contractually required contribution	284	301	288	1,012	905
Contribution deficiency (excess)	—	—	—	—	—
System's covered payroll	5,929	5,713	5,700	5,578	5,415
Contributions as a percentage of a covered payroll	4.78 %	5.26 %	5.05 %	18.15 %	16.71 %

*Employer contributions are not currently required for the SEAD-OPEB plan.

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

See accompanying notes to required supplementary schedules and accompanying independent auditors' report.

Notes to Required Supplementary Information (UNAUDITED)

June 30, 2022

Required Supplementary Information Schedules for the System as the Plan:

(1) Schedule of Employers' and Nonemployer Contributions – Defined Benefit Plans

This schedule presents the required contributions and the percent of required contributions actually contributed.

(2) Schedule of Employers' and Nonemployer Net Pension/OPEB Liability (Asset) and Related Ratios – Defined Benefit Plans

The components of the net pension/OPEB liability (asset) as of the fiscal year end and the fiduciary net position as a percentage of the total pension/OPEB liability (asset) as of that date are presented in this schedule. This trend information will be accumulated to display a 10-year presentation.

(3) Schedule of Changes in Employers' and Nonemployer Net Pension/OPEB Liability (Asset) – Defined Benefit Plans

Net pension/OPEB liability (asset), which is measured as total pension/OPEB liability less the amount of the fiduciary net position, is presented in this schedule. This trend information will be accumulated to display a 10-year presentation.

(4) Schedule of Investment Returns

This schedule presents historical trend information about the annual money-weighted rate of return on plan investments, net of plan investment expense. This trend information will be accumulated to display a 10-year presentation.

(5) Individual Plan Information

This note provides information about changes of benefit terms, changes of assumptions, and methods and assumptions used in calculations of actuarially determined contributions.

(a) Employees' Retirement System

Changes of benefit terms –

- A one-time 3% payment was granted to certain retirees and beneficiaries effective July 2016.
- A one-time 3% payment was granted to certain retirees and beneficiaries effective July 2017.
- Two one-time 2% payments were granted to certain retirees and beneficiaries effective July 2018 and January 2019.
- Two one-time 3% payments were granted to certain retirees and beneficiaries effective July 2019 and January 2020.
- Two one-time 3% payments were granted to certain retirees and beneficiaries effective July 2021 and January 2022.

Changes of assumptions – On December 17, 2015, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System. Primary among the changes were the updates to rates of mortality, retirement, disability, withdrawal, and salary increases. Subsequent to the June 30, 2016 actuarial valuation, the ERS Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation. In addition, based on the ERS Board's new funding policy, the assumed investment rate

(continued)

of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 measurement date, and remained unchanged for June 30, 2019 and June 30, 2020 measurement dates. On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System based on the experience study prepared for the five-year period ending June 30, 2019. Primary among the changes were the updates to rates of mortality, retirement, withdrawal, and salary increases. This also included a change to the long-term assumed investment rate of return to 7.00%. Therefore, a change in assumptions due to the reduction in the assumed investment rate of return from 7.30% to 7.00%, are reflected, along with the assumptions changes due to the experience study, in the calculation of the June 30, 2021 ERS Total Pension Liability. On April 21, 2022, the Board adopted a new funding policy superseding and replacing the funding policy adopted March 15, 2018. This new funding policy, in part, provides that the Actuarial Accrued Liability and Normal Cost of the System will include a prefunded variable COLA for eligible retirees and beneficiaries of the System. Under the new policy, future COLAs are provided through a profit-sharing mechanism using the System's asset performance. After studying the parameters of this new policy, the assumption for future COLAs was set at 1.05%. Previously, no future COLAs were assumed.

(b) Public School Employees' Retirement System

Changes of benefit terms –

- A 2% COLA was granted to certain retirees and beneficiaries effective July 2016.
- The monthly benefit accrual rate was increased from $14.75 to $15.00 per year of creditable service effective July 1, 2017.
- A 2% COLA was granted to certain retirees and beneficiaries effective July 2017.
- The monthly benefit accrual rate was increased from $15.00 to $15.25 per year of creditable service effective July 1, 2018.
- A 2% COLA was granted to certain retirees and beneficiaries effective July 2018.
- The monthly benefit accrual rate was increased from $15.25 to $15.50 per year of creditable service effective July 1, 2019.
- Two 1.5% COLAs were granted to certain retirees and beneficiaries effective July 2019 and January 2020.
- The monthly benefit accrual rate was increased from $15.50 to $15.75 per year of credible service effective July 1, 2021 for members retiring on or after August 1, 2012.
- Two 1.5% COLAs were granted to certain retirees and beneficiaries effective July 2021 and January 2022.

Changes of assumptions – On December 17, 2015, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System. Primary among the changes were the updates to rates of mortality, retirement, and withdrawal. Subsequent to the June 30, 2016 actuarial valuation, the PSERS Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation. In addition, based on the PSERS Board's new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 measurement date, and remained unchanged for June 30, 2019 and June 30, 2020 measurement dates. On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System based on the experience study prepared for the five-year period ending June 30, 2019. Primary among the changes were the updates to rates of mortality, retirement, withdrawal, and salary increases. This also included a change to the long-term assumed investment rate of return to 7.00%. Therefore, a change in assumptions due to the reduction in the assumed investment rate of return from 7.30% to 7.00%, are reflected, along with the assumptions changes due to the experience study, in the calculation of the June 30, 2021 PSERS Total Pension Liability.

(continued)

(c) Legislative Retirement System

Changes of benefit terms –

- Two one-time 3% payments were granted to certain retirees and beneficiaries effective July 2019 and January 2020.
- Two one-time 3% payments were granted to certain retirees and beneficiaries effective July 2021 and January 2022.

Changes of assumptions – On December 17, 2015, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System. Primary among the changes were the updates to rates of mortality, retirement, and withdrawal. Subsequent to the June 30, 2016 actuarial valuation, the LRS Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation. In addition, based on the LRS Board's new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 measurement date, and remained unchanged for June 30, 2019 and June 30, 2020 measurement dates. On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System based on the experience study prepared for the five-year period ending June 30, 2019. Primary among the changes were the updates to rates of mortality, retirement, withdrawal, and salary increases. This also included a change to the long-term assumed investment rate of return to 7.00%. Therefore, a change in assumptions due to the reduction in the assumed investment rate of return from 7.30% to 7.00%, are reflected, along with the assumptions changes due to the experience study, in the calculation of the June 30, 2021 LRS Total Pension Liability.

(d) Georgia Judicial Retirement System

Changes of benefit terms –

- A 2% cost-of-living adjustment was granted to certain retirees and beneficiaries effective July 1, 2016.
- A 2% cost-of-living adjustment was granted to certain retirees and beneficiaries effective July 1, 2017.
- Two one-time 2% payments were granted to certain retirees and beneficiaries effective July 2018 and January 2019.
- Two one-time 3% payments were granted to certain retirees and beneficiaries effective July 2019 and January 2020.
- Two one-time 3% payments were granted to certain retirees and beneficiaries effective July 2021 and January 2022.

Changes of assumptions – On December 17, 2015, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System. Primary among the changes were the updates to rates of mortality, retirement, disability, withdrawal, and salary increases. Subsequent to the June 30, 2016 actuarial valuation, the GJRS Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation. In addition, based on the GJRS Board's new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 measurement date, and remained unchanged for June 30, 2019 and June 30, 2020 measurement dates. On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System based on the experience study prepared for the five-year period ending June 30, 2019. Primary among the changes were the updates to rates of mortality, retirement, withdrawal, and salary increases. This also included a change to the long-term assumed investment rate of return to 7.00%. Therefore, a change in

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assumptions due to the reduction in the assumed investment rate of return from 7.30% to 7.00%, are reflected, along with the assumptions changes due to the experience study, in the calculation of the June 30, 2021 GJRS Total Pension Liability.

(e) Georgia Military Pension Fund

Changes of benefit terms – none

Changes of assumptions – On December 17, 2015, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System. Primary among the changes were the updates to rates of mortality, retirement, and withdrawal. Subsequent to the June 30, 2016 actuarial valuation, the GMPF Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation. In addition, based on the GMPF Board's new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 measurement date, and remained unchanged for June 30, 2019 and June 30, 2020 measurement dates. On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System based on the experience study prepared for the five-year period ending June 30, 2019. Primary among the changes were the updates to rates of mortality, retirement, withdrawal, and salary increases. This also included a change to the long-term assumed investment rate of return to 7.00%. Therefore, a change in assumptions due to the reduction in the assumed investment rate of return from 7.30% to 7.00%, are reflected, along with the assumptions changes due to the experience study, in the calculation of the June 30, 2021 GMPF Total Pension Liability.

(f) State Employees' Assurance Department Retired and Vested Inactive Members Trust Fund (SEAD-OPEB) as a plan

Changes of benefit terms – none

Changes of assumptions – Subsequent to the June 30, 2016 actuarial valuation, the SEAD Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation. In addition, based on the SEAD Board's new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 measurement date, and remained unchanged for June 30, 2019 and June 30, 2020 measurement dates. On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System based on the experience study prepared for the five-year period ending June 30, 2019. Primary among the changes were the updates to rates of mortality, retirement, withdrawal, and salary increases. This also included a change to the long-term assumed investment rate of return to 7.00%. Therefore, a change in assumptions due to the reduction in the assumed investment rate of return from 7.30% to 7.00%, are reflected, along with the assumptions changes due to the experience study, in the calculation of the June 30, 2021 SEAD Total OPEB Liability.

(continued)

Notes to Required Supplementary Information (UNAUDITED)

June 30, 2022

The following actuarial methods and assumptions were used to determine the most recent contribution rates reported in the schedules of employer and nonemployer contributions calculated as of June 30, three years prior to the end of the first calendar year in which contributions are reported:

	ERS	PSERS	LRS
Actuarial cost method	Entry age	Entry age	Entry age
Amortization method	Level dollar, closed	Level dollar, closed	Level dollar, open
Remaining amortization period	15.3 years	19.6 years	Infinite
Asset valuation method	Five-year smoothed fair	Five-year smoothed fair	Five-year smoothed fair
Inflation	2.75%	2.75%	2.75%
Salary increases	3.25 to 7.00%, including inflation	n/a	n/a
Investment rate of return	7.30% net of pension plan investment expense, including inflation	7.30% net of pension plan investment expense, including inflation	7.30% net of pension plan investment expense, including inflation
Cost of living adjustments	None	1.50% Semi-annually	1.50% Semi-annually

	GJRS	GMPF
Actuarial cost method	Entry age	Entry age
Amortization method	Level percent of pay, closed	Level dollar, closed
Remaining amortization period	14.3 years	14.6 years
Asset valuation method	Five-year smoothed fair	Five-year smoothed fair
Inflation	2.75%	2.75%
Salary increases	4.5%, including inflation	n/a
Investment rate of return	7.30% net of pension plan investment expense, including inflation	7.30% net of pension plan investment expense, including inflation
Cost of living adjustments	None	None

	SEAD - OPEB
Actuarial cost method	Entry age
Amortization method	Level dollar, open
Remaining amortization period	Infinite
Asset valuation method	Fair Value of Assets
Inflation	2.75%
Salary increases	
ERS	3.25-7.00%, including inflation
JRS	4.5%, including inflation
LRS	n/a
Investment rate of return	7.30% net of pension plan investment expense, including inflation
Cost of living adjustments	None

(continued)

Notes to Required Supplementary Information (UNAUDITED)

June 30, 2022

Required Supplementary Information Schedules for the System as a participating employer:

(1) Schedules of the System's Proportionate Share of the Net OPEB Liability (Asset)

The information in this schedule presents historical information related to the net OPEB liability (asset) that is recognized by the System in the current period financial statements. This trend information will be accumulated to display a 10-year presentation.

(2) Schedules of the System's Contributions to OPEB Plans

This schedule presents the required contributions and the percent of required contributions actually contributed.

(3) Individual Plan Information

This note provides information about changes of benefit terms, changes of assumptions, and methods and assumptions used in calculations of actuarially determined contributions.

(a) **SEAD-OPEB**

Changes of benefit terms – none

Changes of assumptions – On December 17, 2015, the SEAD Board adopted recommended changes to the economic and demographic assumptions utilized by the Plan. Primary among the changes were the updates to rates of mortality, retirement, disability, withdrawal and salary increases. On March 15, 2018, the Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for June 30, 2017 actuarial valuation and further reduced from 7.40% to 7.30% for the June 30, 2018 actuarial valuation.

On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the Systems based on the experience study prepared for the five-year period ending June 30, 2019. Primary among the changes were the updates to rates of mortality, retirement, withdrawal, and salary increases. This also included a change to the long-term assumed investment rate of return to 7.00%. Therefore, a change in assumptions due to the reduction in the assumed investment rate of return from 7.30% to 7.00%, are reflected, along with the assumptions changes due to the experience study, in the calculation of the June 30, 2021 SEAD Total OPEB Liability.

(b) **State OPEB Fund**

Changes of benefit terms – none

Changes of assumptions – The June 30, 2017 actuarial valuation was revised, for various factors, including the methodology used to determine how employees and retirees were assigned to each of the OPEB Funds and anticipated participation percentages. Current and former employees of State organizations (including technical colleges, community service boards and public health departments) are now assigned to the State OPEB fund based on their last employer payroll location: irrespective of retirement affiliation. In the June 30, 2019 valuation the inflation assumption was lowered from 2.75% to 2.50% in anticipation of the upcoming ERS Experience Study. Additionally, decremental assumptions were changed to reflect the Teachers Retirement Systems experience study. Approximately 6.0% of employees are members of the Teachers Retirement System. In the June 30, 2020 valuation decremental assumptions were changed to reflect the Employees Retirement Systems experience study.

The discount rate was updated from 3.09% as of June 30, 2016, to 3.60% as of June 30, 2017, to 5.22% as of June 30, 2018, to 7.30% as of June 30, 2019, to 7.06% as of June 30, 2020, and to 7.00% as of June 30, 2021.

Additional Information

Schedule of Administrative Expenses - Contributions and Expenses

Year ended June 30, 2022
(In thousands)

Contributions from fiduciary funds:		
Employees' Retirement System	$	7,577
Public School Employees Retirement System		1,523
Legislative Retirement System		327
Georgia Judicial Retirement System		893
Georgia Military Pension Fund		266
Superior Court Judges Retirement Fund		2
District Attorneys Retirement Fund		2
Georgia Defined Contribution Plan		987
401(k) Plan		3,437
457 Plan		585
State Employees' Assurance Department - OPEB		755
Total fiduciary funds		16,354
Contributions from proprietary fund:		
State Employees' Assurance Department Active Members Fund		84
Total contributions		16,438
Expenses:		
Personal services:		
Salaries and fringes		6,242
Retirement contributions		1,137
FICA		452
Health insurance		293
Miscellaneous		44
		8,168
Communications:		
Postage		164
Publications and printing		12
Telecommunications		115
Travel		13
		304
Professional services:		
Accounting services		792
Computer services		1,088
Contracts		3,455
Actuarial services		388
Medical services		52
Audit fees		324
Legal services		32
		6,131
Management fees:		
Building maintenance		635
Other services and charges:		
Temporary services		763
Supplies and materials		63
Repairs and maintenance		14
Courier services		5
Depreciation		250
Miscellaneous		103
Office equipment		2
		1,200
Total expenses		16,438
Net income	$	—

See accompanying independent auditors' report.

(continued)

Additional Information

Schedule of Investment Expenses
Year ended June 30, 2022
(In thousands)

Investment advisory and custodial fees	$	9,848
Miscellaneous		14,044
Total investment expenses*	$	23,892

* Total investment expenses are reported on the Combining Statement of Changes in Fiduciary Net Position and are included with the elements of "Investment income (loss)" on page 29 under the title "Less investment expenses" and the Statement of Revenues, Expenses, and Changes in Net Position - State Employees' Assurance Department Active Members Fund and are included with the elements of "Nonoperating revenues (expenses)" on page 31 under the title "Less investment expenses."

See accompanying independent auditors' report.

Investment Section

Georgia's Waterfalls

Cherokee Falls

ERSGA
Employees' Retirement System of Georgia
Serving those who serve Georgia

Cherokee and Hemlock Falls

Cloudland Canyon Waterfalls Trail: 2.1 miles, difficult

Cloudland Canyon State Park lies in the northwest corner of Georgia, near the borders of Tennessee and Alabama.

Though this out-and-back hike is only 2 miles, it's a difficult trek. The trail drops over 400 feet to the waterfalls before climbing to return to the trailhead. The hike's many stairs are a workout, although the beauty of the falls make the hike worthwhile.

The Cloudland Canyon Waterfalls Trail skirts around the canyon's eastern walls. Views here from the canyon rim are beautiful in any season, though they're especially gorgeous in autumn.

Cherokee Falls is the first waterfall, and plunges 60 feet into a clear, blue pool of water. This waterfall is created from Sitton's Gulch Creek dropping from an immense, arced rock outcrop. Cherokee Falls varies in intensity with seasonal rainfall, ranging from roaring to a mere trickle.

The trail departs Cherokee Falls, retracing the hike to the second trail intersection and follows the Waterfalls Trail to Hemlock Falls. This next waterfall drops over 90 feet from a rock wall, plunging into the surrounding boulder-filled canyon floor.

Learn more at atlantatrails.com

Investment Section

Investment Overview

U.S. real GDP turned negative in the second half of the fiscal year as inflation moved toward record levels. The Federal Reserve began aggressively raising rates and reducing its bond holdings this past year to offset this pressure. The net result was an unusual return paradigm, with both equity and bond returns turning negative for the fiscal year. U.S. equities were down about 11% last year, while foreign equities were down over 19%. Broad domestic bond indexes were down over 8%.

We continually emphasize that the pension plan has a long-term investment horizon and that short-term concerns should not drive investment decisions. The System invests primarily in a mix of liquid, high-quality bonds and stocks. In addition, the System continues to build its private markets program in a disciplined manner. These types of investments further diversify the portfolio and allow the System to participate in rising markets while moderating the risks on the downside. A high-quality balanced fund has proven to be a successful strategy in a variety of markets over long periods of time.

As in previous years, the bias to quality was a primary goal and was successfully met. "Conservation of Capital" and "Conservatism" remain the guiding principles for investment decisions. The Board of Trustees continues to use a diversified portfolio to accomplish these objectives.

Following 12.2% real GDP growth last year, the growth rate fell to 1.6% this year, attributable to negative real growth for the second half of the fiscal year. This turn in growth coincided with a spike in inflation, with a reported CPI of 9.1% for June, the largest 12-month increase since November 1981. Nominal GDP growth was 9.3%. Quarterly real GDP growth volatility remains unusually high and dates back to COVID-19-related shutdowns. Globally, foreign economies are as weak as, if not weaker than, the U.S. This was particularly the case in China, where global weakness and its zero-COVID-19 policy significantly slowed its economy. Other sources of weakness included the war between Russia and Ukraine and the growing likelihood of a recession in Europe.

Studies undertaken to evaluate the investment returns of pension funds over very long-time horizons indicate that the asset allocation decision has the largest impact on the fund's returns. Although the returns for the various asset categories vary from year to year, over the long term, equities typically outperform fixed income and cash by a very wide margin. For example, the ten-year returns for equities was 10.7%, while for bonds it was 1.5%. For that reason, the System has generally maintained significant equity exposure, with the remainder of the fund invested in fixed income securities designed to generate income and preserve capital.

Returns for one, three, five, ten, twenty, and thirty-year periods are presented in this section. Longer periods allow for a more valid evaluation of returns, both in absolute terms and relative to an asset class index, by reducing emphasis on the short-term volatility of markets. The Daily Valuation Method, a time-weighted rate of return, was used to calculate returns in a manner consistent with the CFA Institute's objectives as stated in its publication, "Global Investment Performance Standards Handbook," third edition.

The S&P 500 had a return of (10.6%). The S&P MidCap 400 and the S&P SmallCap 500 indexes had returns of (14.6%) and (16.8%), respectively. While negative for the fiscal year, the long-term returns for these indexes are impressive, with all three reporting ten-year annualized performance of over 10%. Growth stocks underperformed value stocks for the year, a reversal from recent trends. On a sector basis, consumer staples, energy and utilities all had a positive return for the year.

International markets were similarly weak. The MSCI EAFE Index had a return of (17.8%) and the Emerging Markets Index had a return of (25.2%). Nearly all countries recorded a negative return over the past year. Japan was the largest negative contributor to the MSCI EAFE index, while China was the largest drag on the Emerging Markets Index performance. The U.S. dollar was particularly strong last year, with the representative United States Dollar Index reporting a 13.3% increase.

Fixed income yields moved meaningfully higher last year as central banks reversed course to focus on inflation. For example, the Federal Reserve began raising rates in March, with the Federal Funds Rate target range moving from 0-0.25% to 1.5-1.75%. These moves caused negative returns on bonds, with yields on the 1-year, 10-year, and 30-year Treasuries increasing by 2.6%, 1.5%, and 1.06%, respectively. The 10-year Treasury had a return of (11.0%) for the year, while the 30-year Treasury had a return of (19.1%).

We look at two fixed-income indexes to measure the bond market's performance. The Bloomberg U.S. Government/Credit Index had a return of (10.9%). It is a broad index containing corporate and government-sponsored bonds as well as Treasuries. The FTSE Gov/Corp AAA/AA had a return of (8.8%). It is also a broad index containing higher-rated corporate bonds as well as Treasuries and Government securities.

In summary, due to the long-term investment focus, and despite remarkable market volatility and high inflation, the investment status of the System is excellent. The high quality of the System's investments is in keeping with the continued policy of "Conservatism" and "Conservation of Capital."

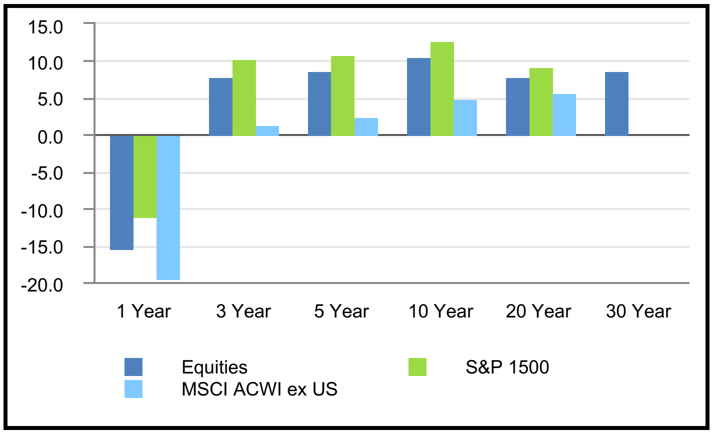
Prepared by the Division of Investment Services

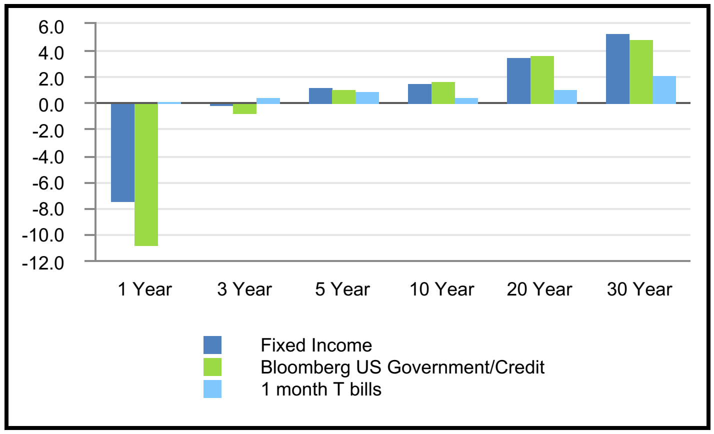
Pooled Investment Fund

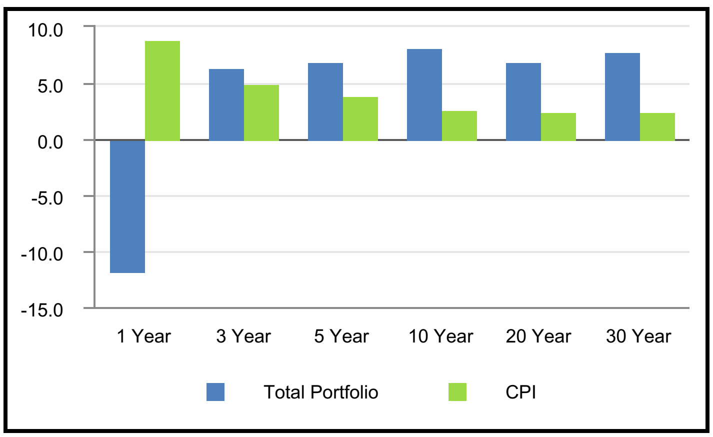
As of June 30, 2022
(in thousands)

Employees' Retirement System (ERS)	$	13,793,518
Public School Employees Retirement System (PSERS)		1,026,546
Legislative Retirement System (LRS)		36,112
Georgia Judicial Retirement System (GJRS)		515,797
State Employees' Assurance Department (SEAD) - Active		357,357
State Employees' Assurance Department (SEAD) - OPEB		1,334,220
Survivors Benefit Fund (SBF)		191,101
Georgia Military Pension Fund (GMPF)		34,923
Total	$	17,289,574

Rates of Return





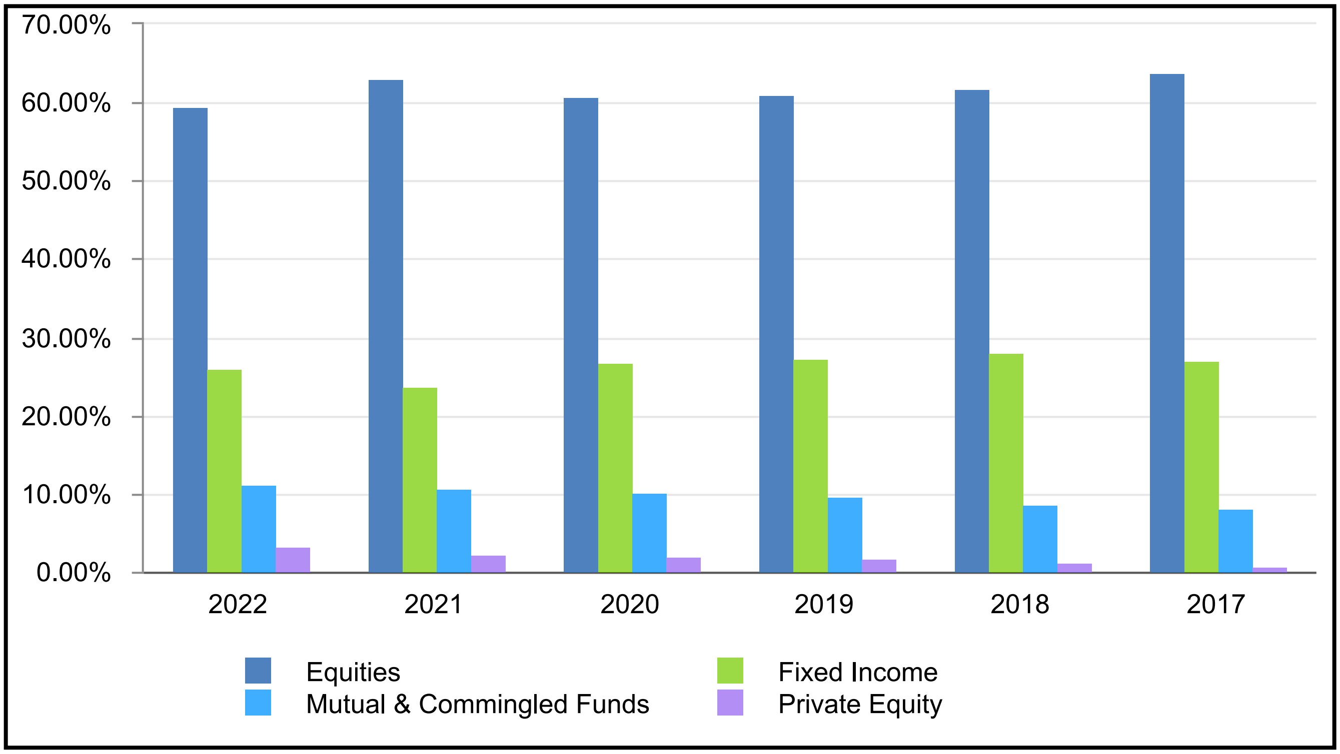


	Equities	S&P 1500	MSCI ACWI ex US	Fixed Income	Bloomberg US Government / Credit	1 Month T-Bills	Total Portfolio	CPI
1 year	(15.27)%	(11.02)%	(19.42)%	(7.43)%	(10.85)%	0.15 %	(11.71)%	9.00 %
3 year	7.93 %	10.29 %	1.35 %	(0.06)%	(0.77)%	0.53 %	6.40 %	4.97 %
5 year	8.72 %	10.92 %	2.50 %	1.24 %	1.05 %	1.02 %	7.05 %	3.88 %
10 year	10.73 %	12.79 %	4.83 %	1.51 %	1.67 %	0.57 %	8.26 %	2.60 %
20 year	7.91 %	9.17 %	5.78 %	3.63 %	3.71 %	1.12 %	6.97 %	2.52 %
30 year	8.86 %	— %	— %	5.32 %	4.91 %	2.15 %	7.94 %	2.52 %

Note: Time-weighted rates of return are calculated using the Daily Valuation Method based on market rates of return.

Investment Section

Asset Allocation at Fair Value



Investment Summary

Asset Allocation as of June 30 (in percentages)

	2022	2021	2020	2019	2018	2017
Equities	59.5 %	63.2	60.9	61.1	61.9	63.9
Fixed Income	26.0	23.8	26.9	27.4	28.1	27.1
Mutual and Commingled Funds	11.2	10.7	10.2	9.7	8.8	8.2
Private Equity	3.3	2.3	2.0	1.8	1.2	0.8
Total	**100.0 %**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Asset Allocation as of June 30 (in millions)

	2022	2021	2020	2019	2018	2017
Equities	$ 11,569	14,412	11,279	11,138	11,140	11,030
Fixed Income	5,044	5,423	4,959	4,984	5,040	4,668
Mutual and Commingled Funds	2,168	2,430	1,893	1,769	1,599	1,421
Private Equity	632	526	365	335	222	134
Total	$ 19,413	22,791	18,496	18,226	18,001	17,253

Schedule of Fees and Commissions

Year ended June 30, 2022

(In thousands)

Investment Advisors' Fees:		
U.S. Equity	$	3,410
International Equity		5,760
Investment Commissions:		
U.S. Equity		585
International Equity		1,396
Transaction Fees:		556
Miscellaneous*:		23,163
Total Fees and Commissions	$	34,870

*Includes capitalized fees not included in total investment expenses shown on page 93.

Twenty Largest Equity Holdings †

As of June 30, 2022

(In thousands)

Shares	Company		Fair Value
2,798,956	Apple Inc.	$	382,673
1,365,384	Microsoft Corp.		350,672
111,603	Alphabet Inc.		243,621
1,759,830	Amazon.Com Inc.		186,911
208,989	UnitedHealth Group Inc.		107,343
144,990	Tesla Inc.		97,639
310,270	Berkshire Hathaway Inc.		84,710
429,620	Visa Inc.		84,588
470,360	Johnson & Johnson		83,494
1,476,875	Pfizer Inc.		77,433
834,641	Merck & Co. Inc.		76,094
270,489	The Home Depot Inc.		74,187
864,718	Taiwan Semiconductor Manufacturing Company Ltd.		70,691
457,642	Nvidia Corp.		69,374
426,317	Meta Platforms, Inc.		68,744
1,352,157	Verizon Communications Inc.		68,622
1,074,990	Coca Cola Co		67,628
399,066	PepsiCo, Inc.		66,508
133,105	Broadcom Inc.		64,664
556,598	JPMorgan Chase & Co.		62,678
	Top Twenty Equities	$	2,388,274
	Remaining Equities		9,181,004
	Total Equities	$	11,569,278

†A complete listing is available upon written request, subject to restrictions of O.C.G.A. Section 47-1-14.

Top 10 Fixed Income Holdings*

As of June 30, 2022

Issuer	Year of Maturity	Interest Rate	Par Value (in thousands)	Fair Value (in thousands)
U.S. Treasury Note	2024	2.2500 %	$ 313,000	$ 307,695
U.S. Treasury Note	2030	0.8750	315,000	265,967
U.S. Treasury Note	2025	2.6250	200,000	197,962
U.S. Treasury Note	2025	2.5000	200,000	197,376
U.S. Treasury Note	2025	2.7500	190,000	188,301
U.S. Treasury Note	2024	1.0000	180,000	171,416
U.S. Treasury Note	2027	2.2500	160,000	153,394
U.S. Treasury Bond	2039	3.5000	113,000	118,045
U.S. Treasury Bond	2028	5.2500	102,000	114,746
U.S. Treasury Note	2028	1.5000	120,000	108,966
Total of 10 Largest ERS & GDCP Fixed Income Holdings				1,823,868
Remaining Fixed Income Holdings				$ 3,219,563
Total ERS and Defined Contribution Fixed Income Securities				$ 5,043,431

*A complete listing is available upon written request, subject to restrictions of O.C.G.A. Section 47-1-14.

Actuarial Section

Georgia's Waterfalls

Toccoa Falls

Serving those who serve Georgia

ERSGA

Employees' Retirement System of Georgia

Toccoa Falls

Toccoa Falls: 100 yards, easy

Toccoa Falls is located on the campus of Toccoa Falls College. It is nestled in the foothills of the Great Smoky Mountains and near Lake Hartwell.

A meandering stream flows through the lower part of the 1,000-acre, wooded campus from the base of the 186-foot high waterfall. The short 100-yard path to the falls is wheelchair and stroller accessible. Toccoa Falls is a spectacular waterfall, higher than Niagara Falls, and is a popular tourist attraction and campus retreat.

Learn more at stephenscountyga.gov

ERS

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

3550 Busbee Pkwy, Suite 250
Kennesaw, GA 30144
Phone (678) 388-1700 • Fax (678) 388-1730
www.CavMacConsulting.com

April 21, 2022

Board of Trustees
Employees' Retirement System of Georgia
Two Northside 75, Suite 300
Atlanta, GA 30318-7701

Attention: Mr. James Potvin, Executive Director

Members of the Board:

Section 47-2-26 of the law governing the operation of the Employees' Retirement System (ERS) of Georgia provides that the actuary shall make annual valuations of the contingent assets and liabilities of the Retirement System on the basis of regular interest and the tables last adopted by the Board of Trustees. We have submitted the report giving the results of the actuarial valuation of the System prepared as of June 30, 2021. The report indicates that annual employer contributions at the rate of 24.60% of compensation for Old Plan Members, 29.35% of compensation for New Plan Members, and 25.51% of compensation for GSEPS Members for the fiscal year ending June 30, 2024 are sufficient to support the benefits of the System.

In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the System enacted through the 2021 session of the General Assembly. In addition, the results of the valuation reflect the two one-time 3% payments to certain retirees and beneficiaries effective July 2021 and January 2022.

Since the previous valuation, a new funding policy has been adopted by the Board. The new funding policy provides for a new Transitional Unfunded Actuarial Accrued Liability (UAAL) as of June 30, 2021, which will be amortized over a closed 20-year period. All previous Transitional and Incremental UAAL bases have been rolled into this new Transitional UAAL. All future new Incremental UAAL bases established after this valuation will be amortized over closed 20-year periods as well.

In addition, the new funding policy provides that the Actuarial Accrued Liability and Normal Cost of the System will include a prefunded variable Cost-of-Living Adjustment (COLA) for eligible retirees and beneficiaries of the System. Under the new policy, future COLAs are provided through a profit-sharing mechanism using the System's asset performance. More information, including definitions and the methodology used in determining the annual COLA rate, is provided in the Appendix of the Funding Policy in Schedule F of this report.

Based on the new funding policy, the long-term annual investment rate of return assumption will be 7.20%. Effective with the June 30, 2022 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. The assumed rate of return used in this valuation was decreased from 7.30% to 7.20%.

The System is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System. The assumptions and methods used for financial reporting purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). The funding objective of the plan is that contribution rates over time will remain level as a percent of payroll. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a level percent of payroll. Gains and losses

(continued)

are reflected in the total unfunded accrued liability which is being amortized on a level dollar basis in accordance with the funding policy adopted by the Board.

The Plan and the employers are required to comply with the financial reporting requirements of GASB Statements No. 67 and 68. The necessary disclosure information is provided in separate supplemental reports.

We have provided the following information and supporting schedules for the Actuarial Section of the Annual Comprehensive Financial Report:

- Summary of Actuarial Assumptions
- Schedule of Active Members
- Schedule of Funding Progress
- Schedule of Retirees Added to and Removed from Rolls
- Analysis of Change in Unfunded Accrued Liability
- Solvency Test Results

The System is being funded in conformity with the minimum funding standard set forth in Code Section 47-20-10 of the Public Retirement Systems Standards Law and the funding policy adopted by the Board. In our opinion the System is operating on an actuarially sound basis. Assuming that contributions to the System are made by the employer from year to year in the future at the rates recommended on the basis of the successive valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the System and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions at this time.

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

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Use of these computations for purposes other than meeting these requirements may not be appropriate.

Sincerely yours,

Edward J. Koebel

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Cathy Turcot

Cathy Turcot
Principal and Managing Director

Ben Mobley

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

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www.CavMacConsulting.com

April 21, 2022

Board of Trustees
Georgia Public School Employees Retirement System
Two Northside 75, Suite 300
Atlanta, GA 30318-7701

Attention: Mr. James Potvin, Executive Director

Members of the Board:

Section 47-4-60 of the law governing the operation of the Georgia Public School Employees Retirement System (PSERS) provides that the employer contribution shall be actuarially determined and approved by the Board of Trustees. We have submitted the report giving the results of the actuarial valuation of the System prepared as of June 30, 2021. Based on a monthly benefit accrual rate of $15.75, which became effective July 1, 2021, the valuation indicates that annual employer contributions of $29,531,000 or $918.35 per active member for the fiscal year ending June 30, 2024 are sufficient to support the benefits of the System.

Since the previous valuation, the monthly benefit accrual rate has been increased from $15.50 to $15.75 per year of creditable service for members retiring on or after August 1, 2012, with an effective date of July 1, 2021.

In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the System enacted through the 2021 session of the General Assembly.

The valuation reflects that the Board granted 1.5% cost-of-living adjustments (COLAs) to certain retired members on July 1, 2021 and on January 1, 2022.

Effective with the June 30, 2017 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. Since the actual rate of return for the year ending June 30, 2021 was greater than 7.30%, the assumed rate of return used in this valuation was decreased from 7.30% to 7.20%.

The System is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System. The assumptions and methods used for financial reporting purposes meet the parameters set by Actuarial Standards of Practice (ASOPS). The funding objective of the plan is that contribution rates over time will remain level as a dollar per active member. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a dollar per active member. Gains and losses are reflected in the total unfunded accrued liability which is being amortized as a level dollar per active member in accordance with the funding policy adopted by the Board.

The Plan and the employers are required to comply with the financial reporting requirements of GASB Statements No. 67 and 68. The necessary disclosure information is provided in separate supplemental reports.

We have provided the following information and supporting schedules for the Actuarial Section of the Annual Comprehensive Financial Report:

- Summary of Actuarial Assumptions
- Schedule of Active Members
- Schedule of Funding Progress
- Schedule of Retirees Added to and Removed from Rolls

(continued)

- Analysis of Change in Unfunded Accrued Liability
- Solvency Test Results

The System is currently being funded in conformity with the minimum funding standard set forth in Code Section 47-20-10 of the Public Retirement Systems Standards Law and the funding policy adopted by the Board. In our opinion the System is currently operating on an actuarially sound basis. Assuming that contributions to the System are made by the employer from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the System and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions prior to the next experience study.

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

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Use of these computations for purposes other than meeting these requirements may not be appropriate.

Sincerely yours,

Edward J. Koebel

Cathy Turcot

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Cathy Turcot
Principal and Managing Director

Ben Mobley

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary

GJRS

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April 21, 2022

Board of Trustees
Georgia Judicial Retirement System
Two Northside 75, Suite 300
Atlanta, GA 30318-7701

Attention: Mr. James Potvin, Executive Director

Members of the Board:

Section 47-23-21 of the law governing the operation of the Georgia Judicial Retirement System provides that the actuary shall make annual valuations of the contingent assets and liabilities of the Retirement System on the basis of regular interest and the tables last adopted by the Board of Trustees. We have submitted the report giving the results of the actuarial valuation of the System prepared as of June 30, 2021. The report indicates that annual employer contributions at the rate of 6.90% of compensation for the fiscal year ending June 30, 2024 are sufficient to support the benefits of the System.

In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the System enacted through the 2021 session of the General Assembly.

The results of the valuation reflect the two one-time 3% payments to certain retirees and beneficiaries effective July 2021 and January 2022.

Effective with the June 30, 2017 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. Since the actual rate of return for the year ending in June 30, 2021 was greater than 7.30%, the assumed rate of return used in the current valuation was decreased from 7.30% to 7.20%.

The System is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System. The assumptions and methods used for financial reporting purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). The funding objective of the plan is that contribution rates over time will remain level as a percent of payroll. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a level percent of payroll. Gains and losses are reflected in the total unfunded accrued liability which is negative and being amortized as a level percent of payroll in accordance with the funding policy adopted by the Board.

The Plan and the employers are required to comply with the financial reporting requirements of GASB Statements No. 67 and 68. The necessary disclosure information is provided in separate supplemental reports.

We have provided the following information and supporting schedules for the Actuarial Section of the Annual Comprehensive Financial Report:

- Summary of Actuarial Assumptions
- Schedule of Active Members
- Schedule of Funding Progress
- Schedule of Retirees Added to and Removed from Rolls
- Analysis of Change in Unfunded Accrued Liability
- Solvency Test Results

(continued)

The System is being funded in conformity with the minimum funding standard set forth in Code Section 47-20-10 of the Public Retirement Systems Standards Law and the funding policy adopted by the Board. In our opinion the System is operating on an actuarially sound basis. Assuming that contributions to the System are made by the employer from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions at this time.

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

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Use of these computations for purposes other than meeting these requirements may not be appropriate.

Sincerely yours,

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Cathy Turcot
Principal and Managing Director

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary

LRS

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April 21, 2022

Board of Trustees
Legislative Retirement System of Georgia
Two Northside 75, Suite 300
Atlanta, GA 30318-7701

Attention: Mr. James Potvin, Executive Director

Members of the Board:

Section 47-6-22 of the law governing the operation of the Georgia Legislative Retirement System provides that the actuary shall make annual valuations of the contingent assets and liabilities of the Retirement System on the basis of regular interest and the tables last adopted by the Board of Trustees. We have submitted the report giving the results of the actuarial valuation of the System prepared as of June 30, 2021. The report indicates that no annual employer contributions for the fiscal year ending June 30, 2024 are required to support the benefits of the System.

The results of the valuation reflect that the Board did not grant the anticipated cost-of-living adjustments (COLAs) to retired members on July 1, 2021 and on January 1, 2022. In addition, the results of the valuation reflect the two one-time 3% payments to certain retirees and beneficiaries effective July 2021 and January 2022.

In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the System enacted through the 2021 session of the General Assembly.

Effective with the June 30, 2017 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. Since the actual rate of return for the year ending June 30, 2021 was greater than 7.30%, the assumed rate of return used in this valuation was decreased from 7.30% to 7.20%.

The System is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System. The assumptions and methods used for financial reporting purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). The funding objective of the plan is that contribution rates over time will remain level as a dollar per active member. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a level dollar per active member. Gains and losses are reflected in the total unfunded accrued liability which is negative and being amortized as a level dollar per active member in accordance with the funding policy adopted by the Board.

The Plan and the employers are required to comply with the financial reporting requirements of GASB Statements No. 67 and 68. The necessary disclosure information is provided in separate supplemental reports.

We have provided the following information and supporting schedules for the Actuarial Section of the Annual Comprehensive Financial Report:

- Summary of Actuarial Assumptions
- Schedule of Active Members
- Schedule of Funding Progress
- Schedule of Retirees Added to and Removed from Rolls
- Analysis of Change in Unfunded Accrued Liability
- Solvency Test Results

(continued)

The System is being funded in conformity with the minimum funding standard set forth in Code Section 47-20-10 of the Public Retirement Systems Standards Law and the funding policy adopted by the Board. In our opinion the System is operating on an actuarially sound basis. Assuming that contributions to the System are made by the employer from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions at this time.

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

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Use of these computations for purposes other than meeting these requirements may not be appropriate.

Sincerely yours,

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Cathy Turcot
Principal and Managing Director

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary

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April 21, 2022

Board of Trustees
Georgia Military Pension Fund
Two Northside 75, Suite 300
Atlanta, GA 30318-7701

Attention: Mr. James Potvin, Executive Director

Members of the Board:

Section 47-24-22 of the law governing the operation of the Georgia Military Pension Fund provides that the actuary shall make periodic valuations of the contingent assets and liabilities of the Pension Fund on the basis of regular interest and the tables last adopted by the Board of Trustees. We have submitted the report giving the results of the actuarial valuation of the Fund prepared as of June 30, 2021. The report indicates that annual employer contributions of $2,793,161 or $194.20 per active member for the fiscal year ending June 30, 2024 are sufficient to support the benefits of the Fund.

In preparing the valuation, the actuary relied on data provided by the Fund. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the Fund enacted through the 2021 session of the General Assembly.

Effective with the June 30, 2017 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. Since the actual rate of return for the year ending June 30, 2021 was greater than 7.30%, the assumed rate of return used in this valuation was decreased from 7.30% to 7.20%.

The Fund is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund. The assumptions and methods used for financial reporting purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). The funding objective of the plan is that contribution rates over time will remain level as a dollar per active member. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a dollar per active member. Gains and losses are reflected in the total unfunded accrued liability which is being amortized as a level dollar per active member in accordance with the funding policy adopted by the Board.

The Plan and the employers are required to comply with the financial reporting requirements of GASB Statements No. 67 and 68. The necessary disclosure information is provided in separate supplemental reports.

We have provided the following information and supporting schedules for the Actuarial Section of the Annual Comprehensive Financial Report:

- Summary of Actuarial Assumptions
- Schedule of Active Members
- Schedule of Funding Progress
- Schedule of Retirees Added to and Removed from Rolls
- Analysis of Change in Unfunded Accrued Liability
- Solvency Test Results

(continued)

The Fund is being funded in conformity with the minimum funding standard set forth in Code Section 47-20-10 of the Public Retirement Systems Standards Law and the funding policy adopted by the Board. In our opinion the Fund is operating on an actuarially sound basis. Assuming that contributions to the Fund are made by the employer from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the Fund may be safely anticipated.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience is performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Fund.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions prior to the next experience study.

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

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Use of these computations for purposes other than meeting these requirements may not be appropriate.

Sincerely yours,

Edward J. Koebel

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Cathy Turcot

Cathy Turcot
Principal and Managing Director

Ben Mobley

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary

SEAD Post-Retirement (SEAD-OPEB)

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April 21, 2022

Board of Trustees
Employees' Retirement System of Georgia
Two Northside 75, Suite 300
Atlanta, GA 30318-7701

Attention: Mr. James Potvin, Executive Director

Members of the Board:

Chapters 47-2 and 47-19 of the Code of Georgia which govern the operation of the Georgia Employees' Group Term Life Insurance Plan provide that the actuary shall make periodic valuations of the contingent assets and liabilities of the Insurance Plan on the basis of regular interest and the tables last adopted by the Board of Trustees. In this report, we have determined liabilities for life insurance benefits payable upon death after retirement (Post-Retirement).

We have submitted the report giving the results of the valuation of the Plan prepared as of June 30, 2021. The report indicates that employee contributions at the rate of 0.45% of active payroll for Old Plan members of the Employees' Retirement System, and 0.23% of active payroll for New Plan members of the Employees' Retirement System, certain members of the Legislative Retirement System and certain members of the Judicial Retirement System are sufficient to support the post-retirement benefits of the Plan. No employer contribution is required for the fiscal year ending June 30, 2024 for pre-retirement benefits.

In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the Plan enacted through the 2021 session of the General Assembly.

Effective with the June 30, 2017 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. Since the actual rate of return for the year ending June 30, 2021 was greater than 7.30%, the assumed rate of return used in the current valuation was decreased from 7.30% to 7.20%.

The Plan is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan. The assumptions and methods used for financial reporting purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). The funding objective of the plan is that contribution rates over time will remain level as a percent of payroll. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a level percent of payroll. Gains and losses are reflected in the total unfunded accrued liability which is being amortized on a level dollar basis in accordance with the funding policy adopted by the Board. In our opinion, the Plan is operating on an actuarially sound basis and the sufficiency of the funds to provide the benefits called for by the Plan may be safely anticipated.

The Plan and the employers are required to comply with the financial reporting requirements of GASB Statements No. 74 and 75. The necessary disclosure information is provided in separate supplemental reports.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were

(continued)

performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Plan.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions at this time.

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

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the Plan. Use of these computations for purposes other than meeting these requirements may not be appropriate.

Sincerely yours,

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Cathy Turcot
Principal and Managing Director

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary

Summary of Plan Provisions

ERS – Please see Notes to Financial Statements, (2)(a), pages 33-34.
PSERS – Please see Notes to Financial Statements, (2)(b), page 34-35.
LRS – Please see Notes to Financial Statements, (2)(c), page 35-36.
GJRS – Please see Notes to Financial Statements, (2)(d), pages 36-37.
GMPF – Please see Notes to Financial Statements, (2)(e), pages 37-38.
SEAD-OPEB – Please see Notes to Financial Statements, (2)(h), pages 38-39.

The following Boards are responsible for establishing and maintaining the funding policies of the various defined benefit pension plans administered by the System:

- Board of Trustees of the Employees' Retirement System: ERS, LRS, and GMPF
- Board of Trustees of the Public School Employees Retirement System: PSERS
- Board of Trustees of the Georgia Judicial Retirement System: GJRS

The following Board is responsible for establishing and maintaining the funding policy of the defined benefit post-employment life insurance plan administered by the System:

- Board of Directors of the State Employees' Assurance Department: SEAD-OPEB

ERS, PSERS, LRS, GJRS, and GMPF are all subject to the provisions of GASB Statement No. 67, *Financial Reporting for Pension Plans*, an amendment of GASB Statement No. 25 (GASB 67). All of the plans covered under GASB 67 use the Entry Age Normal actuarial cost method for both funding and financial reporting purposes. This continues a long-standing practice for all of those plans and provides a point of consistency between the funding provisions and the GASB 67 requirements.

SEAD-OPEB is subject to the provisions of GASB 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. SEAD-OPEB uses the Entry Age Normal actuarial cost method for both funding and financial reporting purposes.

For all of the plans covered under GASB 67, the GASB 67 reports prepared as of June 30, 2022 were largely based on the data, assumptions, and results of the annual funding valuations as of June 30, 2021. The Total Pension Liability (TPL) for each plan, determined using the Entry Age Normal method, was then rolled forward to the June 30, 2022 measurement date. The Net Pension Liability for each plan is equal to the rolled forward TPL less the plan's net position as of June 30, 2022.

For the plan covered under GASB 74, the GASB 74 report prepared as of June 30, 2022 was largely based on the data, assumptions, and results of the annual funding valuation as of June 30, 2021. The Total OPEB Liability (TOL) for the plan, determined using the Entry Age Normal method, was then rolled forward to the June 30, 2022 measurement date. The Net OPEB Liability for the plan is equal to the rolled forward TOL less the plan's net position as of June 30, 2022.

For the pension plans' funding valuations as of June 30, 2021, the Actuarial Value of Assets is calculated using a five-year smoothing methodology, whereby excesses and shortfalls of actual investment income over or under the expected investment return will be recognized over the succeeding five-year periods.

For the life insurance plan's funding valuation as of June 30, 2021, the Actuarial Value of Assets is equal to the Fair Value of Assets as of June 30, 2021.

(continued)

Summary of Plan Provisions

For the funding valuations, each plan covered under GASB 67 utilizes a 7.20% assumed rate of return and a 7.20% discount rate for the calculation of the respective plans' liabilities. The Single Equivalent Interest Rate required under GASB 67 has been determined to be 7.00% by the plans' actuaries.

The plan covered under GASB 74 utilizes a 7.20% assumed rate of return and a 7.20% discount rate for the calculation of the plan's liabilities. The Single Equivalent Interest Rate required under GASB 74 has been determined to be 7.00% by the plan's actuaries.

Summary of Actuarial Assumptions

The laws governing the Employees' Retirement System and the plans it administers require an actuary to perform an annual valuation of the soundness of the plans. In addition, the actuary must perform at least once every five years an actuarial investigation of the mortality, service, and compensation experience of the members and beneficiaries of the System. The latest valuations were performed as of June 30, 2021 based on actuarial assumptions approved by the ERS Board, PSERS Board, GJRS Board, and SEAD Board during the last experience study on December 17, 2020.

The more pertinent facts and significant assumptions underlying the computations included in the June 30, 2021 reports are as follows:

	ERS	PSERS	GJRS	LRS	GMPF
Valuation Date	June 30, 2021	June 30, 2021	June 30, 2021	June 30, 2021	June 30, 2021
Actuarial Cost Method	Entry age	Entry age	Entry age	Entry age	Entry age
Amortization Method	Level dollar, closed	Level dollar, closed	Level percent of pay, closed	Level dollar, open	Level dollar, closed
Amortization Period	20.0 years	17.5 years	13.7 years	Infinite	13.0 years
Actuarial Asset Valuation Method	The actuarial value of assets was based on the total fair value income of investments, with the excess or shortfall of actual investment income over or under the expected investment return smoothed over five years. One-fifth of the excess or shortfall is recognized each year for five years.				
Investment Rate of Return	7.20%	7.20%	7.20%	7.20%	7.20%
Inflation Rate	2.50%	2.50%	2.50%	2.50%	2.50%
Projected Salary Increases	3.00 - 6.75%	n/a	3.75%	n/a	n/a
COLA	1.05% annually	1.50% Semi-annually	None	1.50% Semi-annually	None

	SEAD-OPEB
Valuation Date	June 30, 2021
Actuarial Cost Method	Entry age
Amortization Method	Level dollar, open
Amortization Period	Infinite
Actuarial Asset Valuation Method	Fair Value of Assets
Investment Rate of Return	7.20%
Inflation Rate	2.50%
Projected Salary Increases	
ERS	3.00-6.75%
GJRS	3.75%
LRS	n/a
COLA	None

(continued)

Summary of Actuarial Assumptions

Rates of Withdrawal Prior to Retirement (Withdrawal, Death, Disability)

ERS

Representative values of the assumed annual rates of separation other than retirement for non-law enforcement officers are as follows. Special rates of separation apply to law enforcement officers.

	Annual Rates of Death		Annual Rates of Disability	
Age	Men	Women	Men	Women
20	.0370 %	.0130 %	— %	— %
25	.0280	.0090	—	—
30	.0360	.0150	.010	.005
35	.0470	.0230	.040	.010
40	.0660	.0360	.200	.085
45	.0980	.0560	.375	.215
50	.1490	.0830	.625	.365
55	.2190	.1230	.875	.565
60	.3190	.1860	—	—
65	.4680	.2960	—	—

	Annual Rates of Withdrawal Years of Service					
	0-4		5-9		10 & over	
Age	Men	Women	Men	Women	Men	Women
20	40.00 %	35.00 %	— %	— %	— %	— %
25	30.00	27.00	16.25	18.00	—	—
30	25.00	23.00	12.50	12.50	8.00	9.00
35	23.00	20.00	10.50	10.25	6.25	6.50
40	20.00	18.00	9.50	9.00	4.75	5.25
45	20.00	17.00	8.50	8.00	4.00	4.25
50	17.00	16.00	7.25	7.50	4.50	4.25
55	15.00	15.00	6.75	7.25	4.75	4.25
60	14.50	15.50	5.50	7.00	—	—
65	14.50	16.50	12.50	12.00	—	—

(continued)

Summary of Actuarial Assumptions

Rates of Withdrawal Prior to Retirement (Withdrawal, Death, Disability)

PSERS

Age	Annual Rates of Death Men	Annual Rates of Death Women	Annual Rates of Disability Both
20	.0410 %	.0130 %	— %
25	.0410	.0120	—
30	.0520	.0190	—
35	.0680	.0300	.0018
40	.0960	.0470	.0110
45	.1430	.0720	.0330
50	.2180	.1070	.0770
55	.3200	.1570	.2250
60	.4660	.2380	.2500
65	.6820	.3800	—

Annual Rates of Withdrawal Years of Service						
	0-4		5-9		10 & over	
Age	Men	Women	Men	Women	Men	Women
20	34.00 %	35.00 %	— %	— %	— %	— %
25	31.00	31.00	19.00	20.00	—	—
30	27.50	25.00	17.00	16.50	12.50	10.00
35	24.50	22.00	15.50	15.00	9.00	10.00
40	22.00	20.00	13.50	14.00	8.25	9.00
45	21.00	18.00	12.50	12.00	7.00	8.00
50	18.50	16.25	11.00	10.00	7.00	7.00
55	15.25	13.50	9.00	9.00	6.00	6.00
60	13.50	13.00	9.00	9.00	—	—

(continued)

Summary of Actuarial Assumptions

Rates of Withdrawal Prior to Retirement (Withdrawal, Death, Disability)

GJRS

Annual Rates of				
	Withdrawal	Death		Disability
Age	Both	Men	Women	Both
20	— %	.0370 %	.0130 %	— %
25	5.00	.0280	.0090	.0125
30	5.00	.0360	.0150	.0250
35	5.00	.0470	.0230	.0375
40	4.00	.0660	.0360	.0500
45	3.50	.0980	.0560	.0875
50	2.75	.1490	.0830	.1250
55	2.75	.2190	.1230	.2250
60	2.50	.3190	.1860	.3625
65	2.50	.4680	.2960	.5875

LRS

Annual Rates of			
	Withdrawal	Death	
Age	Both	Men	Women
20	— %	.0370 %	.0130 %
25	9.0	.0280	.0090
30	9.0	.0360	.0150
35	9.0	.0470	.0230
40	10.0	.0660	.0360
45	11.0	.0980	.0560
50	9.0	.1490	.0830
55	8.0	.2190	.1230
60	8.0	.3190	.1860
65	8.0	.4680	.2960

GMPF

Rates of Withdrawal from Active Service	
Service	Rates
2 or Less	11.5 %
3-7	17.0
8-9	13.0
10-14	11.5
15-19	8.5
20 or more	15.5

Age	Rates of Death	
	Men	Women
20	.0370 %	.0130 %
25	.0280	.0090
30	.0360	.0150
35	.0470	.0230
40	.0660	.0360
45	.0980	.0560
50	.1490	.0830
55	.2190	.1230
60	.3190	.1860
65	.4680	.2960

(continued)

Summary of Actuarial Assumptions

Rates of Withdrawal Prior to Retirement (Withdrawal, Death, Disability)

SEAD-OPEB

	All Groups Annual Rates of Death		ERS Annual Rates of Disability		GJRS Annual Rates of Disability
Age	Men	Women	Men	Women	Both
20	.0370 %	.0130 %	— %	— %	— %
25	.0280	.0090	—	—	.0125
30	.0360	.0150	.0100	.0050	.0250
35	.0470	.0230	.0400	.0100	.0375
40	.0660	.0360	.2000	.0850	.0500
45	.0980	.0560	.3750	.2150	.0875
50	.1490	.0830	.6250	.3650	.1250
55	.2190	.1230	.8750	.5650	.2250
60	.3190	.1860	—	—	.3625
65	.4680	.2960	—	—	.5875

	ERS Annual Rates of Withdrawal Years of Service						LRS Annual Rates of Withdrawal	GJRS Annual Rates of Withdrawal
	0-4		5-9		10 & over			
Age	Men	Women	Men	Women	Men	Women	Both	Both
20	40.00 %	35.00 %	— %	— %	— %	— %	9.00 %	5.00 %
25	30.00	27.00	16.25	18.00	—	—	9.00	5.00
30	25.00	23.00	12.50	12.50	8.00	9.00	9.00	5.00
35	23.00	20.00	10.50	10.25	6.25	6.50	9.00	5.00
40	20.00	18.00	9.50	9.00	4.75	5.25	10.00	4.00
45	20.00	17.00	8.50	8.00	4.00	4.25	11.00	3.50
50	17.00	16.00	7.25	7.50	4.50	4.25	9.25	2.75
55	15.00	15.00	6.75	7.25	4.75	4.25	8.00	2.75
60	14.50	15.50	5.50	7.00	—	—	8.00	2.50
65	14.50	16.50	12.50	12.00	—	—	8.00	2.50

(continued)

Summary of Actuarial Assumptions

Annual Rates of Retirement

ERS

	Old Plan							
	Early Retirement		Age 60 or 30 years		34 years		More than 34 years	
Age	Men	Women	Men	Women	Men	Women	Men	Women
50	2.0 %	2.0 %	7.5 %	6.0 %	100.0 %	100.0 %	90.0 %	100.0 %
52	2.0	2.0	7.5	6.0	100.0	100.0	90.0	100.0
55	3.0	3.5	7.5	10.0	100.0	100.0	75.0	90.0
57	3.0	5.0	10.5	10.0	100.0	100.0	70.0	70.0
60	—	—	15.0	20.0	97.5	95.0	40.0	55.0
62	—	—	32.0	40.0	97.5	95.0	40.0	65.0
65	—	—	35.0	40.0	35.0	40.0	35.0	40.0
67	—	—	35.0	35.0	35.0	35.0	35.0	35.0
70	—	—	35.0	35.0	35.0	35.0	35.0	35.0
75	—	—	100.0	100.0	100.0	100.0	100.0	100.0

	New Plan and GSEPS			
	Early Retirement		Normal Retirement	
Age	Men	Women	Men*	Women**
50	5.0 %	3.8 %	60.0 %	42.0 %
52	5.0	3.8	50.0	42.0
55	6.0	5.8	50.0	40.0
57	6.0	7.3	45.0	37.0
60	—	—	25.0	28.0
62	—	—	37.5	37.5
65	—	—	32.0	33.0
67	—	—	32.0	32.0
70	—	—	30.0	30.0
75	—	—	100.0	100.0

*An additional 20% are assumed to retire in the first year eligible for unreduced retirement with 30 years of service before age 60.

**An additional 25% for ages below 53 and 20% for ages 53 to 59 are assumed to retire in the first year eligible for unreduced retirement with 30 years of service before age 60.

(continued)

Summary of Actuarial Assumptions

Annual Rates of Retirement

PSERS

Age	Annual Rate of Retirement	Age	Annual Rate of Retirement
60	12.0 %	71	25.0 %
61	12.0	72	25.0
62	21.0	73	25.0
63	17.0	74	25.0
64	15.0	75	25.0
65	26.0	76	25.0
66	26.0	77	25.0
67	22.0	78	25.0
68	22.0	79	25.0
69	23.5	80 & over	100.0
70	25.0		

GJRS

Age	Annual Rate of Retirement
60	15.0 %
61-64	10.0
65	13.0
66-67	15.0
68-69	18.0
70-77	25.0
78	100.0

LRS

Age	Annual Rate of Retirement	Age	Annual Rate of Retirement
60	8.0 %	66	10.0 %
61	8.0	67	10.0
62	12.0	68	10.0
63	8.0	69	15.0
64	8.0	70-79	15.0
65	10.0	80	100.0

(continued)

Summary of Actuarial Assumptions

Annual Rates of Retirement

GMPF

Age	Annual Rate of Retirement
60	75.0 %
61	75.0
62	60.0
63	50.0
64	50.0
65 & over	100.0

SEAD-OPEB

ERS Members

	Old Plan							
	Early Retirement		Age 60 or 30 years		34 years		More than 34 years	
Age	Men	Women	Men	Women	Men	Women	Men	Women
50	2.0 %	2.0 %	7.5 %	6.0 %	100.0 %	100.0 %	90.0 %	100.0 %
52	2.0	2.0	7.5	6.0	100.0	100.0	90.0	100.0
55	3.0	3.5	7.5	10.0	100.0	100.0	75.0	90.0
57	3.5	5.0	10.5	10.0	100.0	100.0	70.0	70.0
60	—	—	15.0	20.0	97.5	95.0	40.0	55.0
62	—	—	32.0	40.0	97.5	95.0	40.0	65.0
65	—	—	35.0	40.0	35.0	40.0	35.0	40.0
67	—	—	35.0	35.0	35.0	35.0	35.0	35.0
70	—	—	35.0	35.0	35.0	35.0	35.0	35.0
75	—	—	100.0	100.0	100.0	100.0	100.0	100.0

	New Plan and GSEPS			
	Early Retirement		Normal Retirement	
Age	Men	Women	Men*	Women**
50	5.0 %	3.8 %	60.0 %	42.0 %
52	5.0	3.8	50.0	42.0
55	6.0	5.8	50.0	40.0
57	6.0	7.3	45.0	37.0
60	—	—	25.0	28.0
62	—	—	37.5	37.5
65	—	—	32.0	33.0
67	—	—	32.0	32.0
70	—	—	30.0	30.0
75	—	—	100.0	100.0

*An additional 20% of active male New Plan and GSEPS members are expected to retire in the year in which they attain 30 years of service before age 60.
**An additional 25% of active female New Plan and GSEPS members less than age 53 and 20% for ages 53 to 59 are expected to retire in the year in which they attain 30 years of service before age 60.

(continued)

Summary of Actuarial Assumptions

Annual Rates of Retirement

LRS Members

Age	Annual Rate of Retirement	Age	Annual Rate of Retirement
60	8.0 %	66	10.0 %
61	8.0	67	10.0
62	12.0	68	10.0
63	8.0	69	15.0
64	8.0	70-79	15.0
65	10.0	80	100.0

GJRS Members

Age	Annual Rate of Retirement
60	15.0 %
61-64	10.0
65	13.0
66-67	15.0
68-69	18.0
70-77	25.0
78	100.0

(continued)

Summary of Actuarial Assumptions

Annual Rates of Death After Retirement[1]

For all plans except PSERS, the Pub-2010 Family of Tables projected generationally with MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as follows:

Participant Type	Membership Table	Set Forward (+)/ Setback (-)	Adjustment To Rates
Service Retirees	General Healthy Annuitant	Male: +1; Female: +1	Male: 105%; Female: 108%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Contingent Survivors	Male: +2; Female: +2	Male: 106%; Female: 105%

For PSERS, the Pub-2010 Family of Tables projected generationally with MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as follows:

Participant Type	Membership Table	Set Forward (+)/ Setback (-)	Adjustment To Rates
Service Retirees	General Healthy Below-Median Annuitant	Male: +2; Female: +2	Male: 101%; Female: 103%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Below-Median Contingent Survivors	Male: +2; Female: +2	Male: 104%; Female: 99%

ERS

	Service Retirement		Disability Retirement		Beneficiaries	
Age	Men	Women	Men	Women	Men	Women
50	0.3371 %	0.2516 %	1.2576 %	1.5720 %	0.7918 %	0.3843 %
55	0.4861	0.3251	1.8725	1.8465	0.9402	0.5334
60	0.6941	0.4493	2.3484	2.0734	1.1978	0.7529
65	1.0532	0.7366	2.7573	2.3914	1.7257	1.1057
70	1.7882	1.2863	3.4536	3.0337	2.7157	1.7000
75	3.1448	2.2799	4.4743	4.2432	4.3036	2.7500
80	5.6427	4.0900	6.0986	6.3674	6.8879	4.6778
85	10.0958	7.6043	8.8220	9.8909	11.3049	8.4315
90	16.9785	13.8596	12.9831	14.4849	18.6083	14.6496

[1]Base mortality rates as of 2010 before application of the improvement scale

(continued)

Summary of Actuarial Assumptions

Annual Rates of Death After Retirement[1]

PSERS

Age	Service Retirement Men	Service Retirement Women	Disability Retirement Men	Disability Retirement Women	Beneficiaries Men	Beneficiaries Women
50	0.7989 %	0.4532 %	1.2576 %	1.5720 %	0.9984 %	0.5930 %
55	0.9837	0.5037	1.8725	1.8465	1.1523	0.7742
60	1.1726	0.6015	2.3484	2.0734	1.4258	1.0237
65	1.5736	0.8827	2.7573	2.3914	1.9978	1.4147
70	2.5785	1.5296	3.4536	3.0337	3.0680	2.0731
75	4.3329	2.6770	4.4743	4.2432	4.7414	3.1878
80	7.4043	4.7679	6.0986	6.3674	7.3944	5.1450
85	12.4301	8.7849	8.8220	9.8909	11.8154	8.7684
90	19.3173	15.3594	12.9831	14.4849	19.0320	14.3778

GJRS

Age	Service Retirement Men	Service Retirement Women	Disability Retirement Men	Disability Retirement Women	Beneficiaries Men	Beneficiaries Women
50	0.3371 %	0.2516 %	1.2576 %	1.5720 %	0.7918 %	0.3843 %
55	0.4861	0.3251	1.8725	1.8465	0.9402	0.5334
60	0.6941	0.4493	2.3484	2.0734	1.1978	0.7529
65	1.0532	0.7366	2.7573	2.3914	1.7257	1.1057
70	1.7882	1.2863	3.4536	3.0337	2.7157	1.7000
75	3.1448	2.2799	4.4743	4.2432	4.3036	2.7500
80	5.6427	4.0900	6.0986	6.3674	6.8879	4.6778
85	10.0958	7.6043	8.8220	9.8909	11.3049	8.4315
90	16.9785	13.8596	12.9831	14.4849	18.6083	14.6496

LRS

Age	Service Retirement Men	Service Retirement Women	Disability Retirement Men	Disability Retirement Women	Beneficiaries Men	Beneficiaries Women
50	0.3371 %	0.2516 %	1.2576 %	1.5720 %	0.7918 %	0.3843 %
55	0.4861	0.3251	1.8725	1.8465	0.9402	0.5334
60	0.6941	0.4493	2.3484	2.0734	1.1978	0.7529
65	1.0532	0.7366	2.7573	2.3914	1.7257	1.1057
70	1.7882	1.2863	3.4536	3.0337	2.7157	1.7000
75	3.1448	2.2799	4.4743	4.2432	4.3036	2.7500
80	5.6427	4.0900	6.0986	6.3674	6.8879	4.6778
85	10.0958	7.6043	8.8220	9.8909	11.3049	8.4315
90	16.9785	13.8596	12.9831	14.4849	18.6083	14.6496

[1]Base mortality rates as of 2010 before application of the improvement scale

(continued)

Summary of Actuarial Assumptions

Annual Rates of Death After Retirement[1]

GMPF

Age	Service Retirement Men	Service Retirement Women
50	0.3371 %	0.2516 %
55	0.4861	0.3251
60	0.6941	0.4493
65	1.0532	0.7366
70	1.7882	1.2863
75	3.1448	2.2799
80	5.6427	4.0900
85	10.0958	7.6043
90	16.9785	13.8596

SEAD-OPEB

	Service Retirement		Disability Retirement		Beneficiaries	
Age	Men	Women	Men	Women	Men	Women
50	0.3371 %	0.2516 %	1.2576 %	1.5720 %	0.7918 %	0.3843 %
55	0.4861	0.3251	1.8725	1.8465	0.9402	0.5334
60	0.6941	0.4493	2.3484	2.0734	1.1978	0.7529
65	1.0532	0.7366	2.7573	2.3914	1.7257	1.1057
70	1.7882	1.2863	3.4536	3.0337	2.7157	1.7000
75	3.1448	2.2799	4.4743	4.2432	4.3036	2.7500
80	5.6427	4.0900	6.0986	6.3674	6.8879	4.6778
85	10.0958	7.6043	8.8220	9.8909	11.3049	8.4315
90	16.9785	13.8596	12.9831	14.4849	18.6083	14.6496

[1]Base mortality rates as of 2010 before application of the improvement scale

Active Members

ERS

Year	Employers	Active Members	Annual Payroll (in thousands)	Average Pay	Change
2012	723	63,942	$ 2,414,884	$ 37,767	0.4 %
2013	716	61,550	2,335,773	37,949	0.5
2014	425	60,486	2,315,625	38,284	0.9
2015	423	60,416	2,352,920	38,945	1.7
2016	425	59,766	2,384,358	39,895	2.4
2017	427	60,906	2,546,492	41,810	4.8
2018	419	60,405	2,634,129	43,608	4.3
2019	420	59,207	2,611,965	44,116	1.2
2020	417	57,059	2,612,773	45,791	3.8
2021	406	53,330	2,477,691	46,460	1.5

PSERS

PSERS is not a compensation based plan.

Year	Employers	Active Members
2012	189	38,654
2013	187	37,361
2014	184	36,096
2015	183	35,477
2016	182	34,866
2017	184	35,509
2018	184	34,953
2019	187	34,767
2020	186	34,736
2021	186	32,157

GJRS

Year	Employers	Active Members	Annual Payroll (in thousands)	Average Pay	Change
2012	96	503	$ 51,898	$ 103,177	0.0 %
2013	97	506	52,807	104,362	1.1
2014	92	513	53,628	104,539	0.2
2015	91	516	54,272	105,178	0.6
2016	93	526	57,401	109,128	3.8
2017	94	527	59,695	113,273	3.8
2018	93	527	60,572	114,937	1.5
2019	93	521	60,532	116,184	1.1
2020	92	522	61,544	117,900	1.5
2021	91	538	63,421	117,883	(0.0)

(continued)

Active Members

LRS

LRS is not a compensation based plan.

Year	Employers	Active Members
2012	1	220
2013	1	223
2014	1	222
2015	1	218
2016	1	224
2017	1	222
2018	1	222
2019	1	221
2020	1	219
2021	1	216

GMPF

GMPF is not a compensation based plan.

Year	Employers	Active Members
2012	1	13,526
2013	1	13,573
2014	1	13,469
2015	1	13,754
2016	1	13,850
2017	1	13,037
2018	1	13,804
2019	1	13,711
2020	1	14,095
2021	1	14,383

SEAD-OPEB

Year	Employers	Active Members
2012	815	49,261
2013	811	43,512
2014	482	39,101
2015	481	35,189
2016	477	32,076
2017	455	29,024
2018	459	26,224
2019	456	23,499
2020	444	21,144
2021	412	18,875

Note: Payroll data on page 124 for fiscal year 2021 will not equal that which is presented in the Financial section in the Schedules of Employers' and Nonemployer Contributions on pages 67-68. Valuation data at that time was a snapshot of the valuation date, annualized for new hires, but does not include those who terminated during the year.

Member and Employer Contribution Rates

ERS

Year	Member	Employer Rates: Old Plan*	Employer Rates: New Plan	Employer Rates: GSEPS
2013	1.25 %	14.90 %	14.90 %	11.54 %
2014	1.25	18.46	18.46	15.18
2015	1.25	21.96	21.96	18.87
2016	1.25	24.72	24.72	21.69
2017	1.25	24.69	24.69	21.69
2018	1.25	24.69	24.69	21.66
2019	1.25	24.66	24.66	21.66
2020	1.25	24.66	24.66	21.64
2021	1.25	24.66	24.66	21.57
2022	1.25	24.63	24.63	21.57

* Old Plan rate includes an employer pick-up of employee contributions.

PSERS

Year	Pre 7/1/12 Member	Post 7/1/12 Member	Employer
2013	$ 36 per year	$ 90 per year	$ 24,829,000
2014	$ 36 per year	$ 90 per year	27,160,000
2015	$ 36 per year	$ 90 per year	28,461,000
2016	$ 36 per year	$ 90 per year	28,580,000
2017	$ 36 per year	$ 90 per year	26,277,000
2018	$ 36 per year	$ 90 per year	29,276,000
2019	$ 36 per year	$ 90 per year	30,263,000
2020	$ 36 per year	$ 90 per year	32,496,000
2021	$ 36 per year	$ 90 per year	30,264,000
2022	$ 36 per year	$ 90 per year	32,491,000

GJRS

Year	Member	Employer
2013	7.50 %	3.90 %
2014	7.50	4.23
2015	7.50	6.98
2016	7.50	12.19
2017	7.50	10.48
2018	7.50	7.17
2019	7.50	7.83
2020	7.50	9.13
2021	7.50	8.38
2022	7.50	8.81

(continued)

Member and Employer Contribution Rates

LRS

Year	Member	Employer
2013	8.50 %	$ 128,000
2014	8.50	45,000
2015	8.50	—
2016	8.50	—
2017	8.50	—
2018	8.50	—
2019	8.50	—
2020	8.50	—
2021	8.50	—
2022	8.50	—

* Member rate includes an employer pick-up of employee contributions.

GMPF

Year	Member	Employer
2013	n/a	$ 1,703,000
2014	n/a	1,892,000
2015	n/a	1,893,369
2016	n/a	1,989,530
2017	n/a	2,017,875
2018	n/a	2,377,312
2019	n/a	2,537,272
2020	n/a	2,611,590
2021	n/a	2,683,883
2022	n/a	2,697,265

SEAD-OPEB

Year	Member - Old Plan	Member - New Plan, LRS, GJRS	Employer
2013	0.45 %	0.23 %	0.27 %
2014	0.45	0.23	—
2015	0.45	0.23	—
2016	0.45	0.23	—
2017	0.45	0.23	—
2018	0.45	0.23	—
2019	0.45	0.23	—
2020	0.45	0.23	—
2021	0.45	0.23	—
2022	0.45	0.23	—

Schedules of Funding Progress - Defined Benefit Plans

(in thousands)

	Actuarial Valuation Date		Actuarial Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry-Age (b)	Unfunded AAL/ (Funded Excess) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	Unfunded AAL/ (Funded Excess) as Percentage of Covered Payroll [(b-a)/c]
Employees' Retirement System	6/30/2012		$ 12,260,595	$ 16,777,922	$ 4,517,327	73.1 %	$ 2,414,884	187.1 %
	6/30/2013		12,129,804	16,982,449	4,852,645	71.4	2,335,773	207.8
	6/30/2014		12,376,120	16,991,963	4,615,843	72.8	2,315,625	199.3
	6/30/2015	**	12,675,649	17,099,527	4,423,878	74.1	2,352,920	188.0
	6/30/2016		12,854,518	17,199,688	4,345,170	74.7	2,384,358	182.2
	6/30/2017	*	13,088,185	17,514,898	4,426,713	74.7	2,546,492	173.8
	6/30/2018	*	13,412,046	17,812,441	4,400,395	75.3	2,634,129	167.1
	6/30/2019		13,481,219	17,829,220	4,348,001	75.6	2,611,965	166.5
	6/30/2020	**	13,556,622	18,375,797	4,819,175	73.8	2,612,773	184.4
	6/30/2021	*	14,383,600	20,085,695	5,702,095	71.6	2,477,691	230.1
Public School Employees Retirement System[1]	6/30/2012		710,915	895,324	184,409	79.4	n/a	n/a
	6/30/2013		727,268	910,256	182,988	79.9	n/a	n/a
	6/30/2014		765,450	924,365	158,915	82.8	n/a	n/a
	6/30/2015	**	805,277	967,409	162,132	83.2	n/a	n/a
	6/30/2016		834,554	988,883	154,329	84.4	n/a	n/a
	6/30/2017	*	865,786	1,035,935	170,149	83.6	n/a	n/a
	6/30/2018	*	905,046	1,081,184	176,138	83.7	n/a	n/a
	6/30/2019		931,032	1,108,658	177,626	84.0	n/a	n/a
	6/30/2020	**	961,431	1,156,997	195,566	83.1	n/a	n/a
	6/30/2021	*	1,042,196	1,207,955	165,759	86.3	n/a	n/a
Legislative Retirement System	6/30/2012		28,990	24,966	(4,024)	116.1	3,815	(105.5)
	6/30/2013		29,481	24,904	(4,577)	118.4	3,867	(118.4)
	6/30/2014		30,538	24,913	(5,624)	122.6	3,850	(146.1)
	6/30/2015	**	31,635	25,690	(5,945)	123.1	3,764	(157.9)
	6/30/2016		32,171	25,533	(6,638)	126.0	3,875	(171.3)
	6/30/2017	*	32,913	25,674	(7,239)	128.2	3,830	(189.0)
	6/30/2018	*	33,871	25,905	(7,966)	130.7	3,844	(207.2)
	6/30/2019		34,153	25,714	(8,439)	132.8	3,833	(220.2)
	6/30/2020	**	34,661	25,543	(9,118)	135.7	3,798	(240.1)
	6/30/2021	*	37,078	25,838	(11,240)	143.5	3,746	(300.1)
Georgia Judicial Retirement System	6/30/2012		335,225	308,862	(26,363)	108.5	51,898	(50.8)
	6/30/2013		351,889	335,792	(16,097)	104.8	52,807	(30.5)
	6/30/2014		373,560	343,428	(30,132)	108.8	53,628	(56.2)
	6/30/2015	**	396,399	350,298	(46,101)	113.2	54,272	(84.9)
	6/30/2016		418,412	376,740	(41,672)	111.1	57,401	(72.6)
	6/30/2017	*	439,828	407,607	(32,221)	107.9	59,695	(54.0)
	6/30/2018	*	461,787	424,724	(37,063)	108.7	60,572	(61.2)
	6/30/2019		474,003	440,664	(33,339)	107.6	60,532	(55.1)
	6/30/2020	**	487,591	458,188	(29,403)	106.4	61,544	(47.8)
	6/30/2021	*	525,929	482,619	(43,310)	109.0	63,421	(68.3)

(continued)

Schedules of Funding Progress - Defined Benefit Plans

(in thousands)

	Actuarial Valuation Date		Actuarial Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry-Age (b)	Unfunded AAL/ (Funded Excess) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	Unfunded AAL/ (Funded Excess) as Percentage of Covered Payroll [(b-a)/c]
Georgia Military Pension Fund[2]	6/30/2012		$ 10,087	$ 28,231	$ 18,144	35.7 %	n/a	n/a
	6/30/2013		12,131	30,056	17,925	40.4	n/a	n/a
	6/30/2014		14,264	31,815	17,551	44.8	n/a	n/a
	6/30/2015	**	16,446	35,213	18,767	46.7	n/a	n/a
	6/30/2016		18,414	38,211	19,797	48.2	n/a	n/a
	6/30/2017	*	20,604	40,731	20,127	50.6	n/a	n/a
	6/30/2018	*	23,362	43,622	20,260	53.6	n/a	n/a
	6/30/2019		26,119	45,790	19,671	57.0	n/a	n/a
	6/30/2020	**	29,083	50,329	21,246	57.8	n/a	n/a
	6/30/2021	*	33,687	53,591	19,904	62.9	n/a	n/a

This data, except for annual covered payroll, was provided by the System's actuary.

[1] No statistics regarding covered payroll are available. Contributions are not based on members' salaries, but are simply $4.00 per month, per member for nine months each fiscal year if hired prior to July 1, 2012 and $10 per month, per member for nine months if hired after July 1, 2012.
[2] No statistics regarding covered payroll are available. Active and inactive plan member information is maintained by the Georgia Department of Defense.

Note: Payroll data on page 128 for fiscal year 2021 will not equal that which is presented in the Financial section in the Schedules of Employers' and Nonemployer Contributions on pages 67-68. Valuation data at that time was a snapshot of the valuation date, annualized for new hires, but does not include those who terminated during the year.

*Reflects change in assumed rate of return
**Reflects changes in actuarial assumptions

Schedule of Retirees Added to and Removed from Rolls

ERS

Year Ended	Added to Rolls: Number	Added to Rolls: Annual Allowances (in thousands)	Removed from Rolls: Number	Removed from Rolls: Annual Allowances (in thousands)	Roll End of Year: Number	Roll End of Year: Annual Allowances (in thousands)	% Increase in Annual Allowance	Average Annual Allowances
2012	2,956	$ 71,464	1,305	$ 27,696	41,860	$ 1,198,180	3.8 %	$ 28,624
2013	3,664	88,855	1,176	26,334	44,348	1,260,701	5.2	28,427
2014	2,440	51,178	1,059	22,997	45,729	1,288,882	2.2	28,185
2015	2,656	54,003	1,350	30,927	47,035	1,311,958	1.8	27,893
2016	2,572	51,031	1,342	30,724	48,265	1,332,265	1.5	27,603
2017	2,630	45,833	1,420	32,372	49,475	1,345,726	1.0	27,200
2018	2,612	50,005	1,422	33,530	50,665	1,362,201	1.2	26,886
2019	2,777	58,673	1,357	32,574	52,085	1,388,300	1.9	26,655
2020	2,553	53,509	1,606	38,185	53,032	1,403,624	1.1	26,467
2021	2,724	58,426	1,893	45,432	53,863	1,416,618	0.9	26,300

PSERS

Year Ended	Added to Rolls: Number	Added to Rolls: Annual Allowances (in thousands)	Removed from Rolls: Number	Removed from Rolls: Annual Allowances (in thousands)	Roll End of Year: Number	Roll End of Year: Annual Allowances (in thousands)	% Increase in Annual Allowance	Average Annual Allowances
2012	1,133	$ 3,192	684	$ 2,834	15,049	$ 54,117	0.7 %	$ 3,596
2013	1,298	3,803	650	2,738	15,697	55,182	2.0	3,515
2014	1,345	3,749	647	2,604	16,395	56,327	2.1	3,436
2015	1,247	3,482	690	2,679	16,952	57,130	1.4	3,370
2016	1,363	3,927	763	2,890	17,552	58,167	1.8	3,314
2017	1,253	4,322	756	2,927	18,049	59,562	2.4	3,300
2018	1,258	5,436	885	3,354	18,422	61,644	3.5	3,346
2019	1,301	5,319	795	3,101	18,928	63,862	3.6	3,374
2020	1,165	5,679	932	3,484	19,161	66,057	3.4	3,447
2021	1,368	4,185	1,087	4,195	19,442	66,047	(0.0)	3,397

GJRS

Year Ended	Added to Rolls: Number	Added to Rolls: Annual Allowances (in thousands)	Removed from Rolls: Number	Removed from Rolls: Annual Allowances (in thousands)	Roll End of Year: Number	Roll End of Year: Annual Allowances (in thousands)	% Increase in Annual Allowance	Average Annual Allowances
2012	22	$ 1,732	8	$ 405	234	$ 14,827	9.8 %	$ 63,363
2013	42	2,763	13	629	263	16,961	14.4	64,490
2014	23	1,175	9	326	277	17,810	5.0	64,296
2015	21	1,416	11	561	287	18,665	4.8	65,035
2016	13	919	5	269	295	19,315	3.5	65,475
2017	62	5,304	10	771	347	23,848	23.5	68,726
2018	23	1,950	12	558	358	25,240	5.8	70,503
2019	52	3,435	12	562	398	28,113	11.4	70,636
2020	34	2,060	19	1,058	413	29,115	3.6	70,496
2021	43	3,669	9	402	447	32,382	11.2	72,443

(continued)

Schedule of Retirees Added to and Removed from Rolls

LRS

Year Ended	Added to Rolls Number	Added to Rolls Annual Allowances (in thousands)	Removed from Rolls Number	Removed from Rolls Annual Allowances (in thousands)	Roll End of Year Number	Roll End of Year Annual Allowances (in thousands)	% Increase in Annual Allowance	Average Annual Allowances
2012	10	$ 66	11	$ 82	243	$ 1,774	(0.9) %	$ 7,300
2013	32	200	15	140	260	1,834	3.4	7,054
2014	6	30	7	61	259	1,803	(1.7)	6,961
2015	13	87	12	112	260	1,778	(1.4)	6,838
2016	9	58	13	111	256	1,725	(3.0)	6,738
2017	13	80	6	74	263	1,731	0.3	6,582
2018	11	57	7	56	267	1,732	0.4	6,489
2019	14	82	12	96	269	1,718	(0.8)	6,386
2020	14	95	14	123	269	1,690	(1.6)	6,283
2021	30	207	21	157	278	1,740	3.0	6,259

GMPF

Year Ended	Added to Rolls Number	Added to Rolls Annual Allowances (in thousands)	Removed from Rolls Number	Removed from Rolls Annual Allowances (in thousands)	Roll End of Year Number	Roll End of Year Annual Allowances (in thousands)	% Increase in Annual Allowance	Average Annual Allowances
2012	95	$ 106	3	$ 3	660	$ 720	16.7 %	$ 1,091
2013	83	87	5	5	738	802	11.4	1,087
2014	62	68	5	6	795	864	7.7	1,087
2015	54	55	6	5	843	914	5.8	1,084
2016	79	82	9	9	913	987	8.0	1,081
2017	83	90	11	11	985	1,066	8.0	1,082
2018	97	106	7	8	1,075	1,164	9.2	1,083
2019	91	94	18	20	1,148	1,238	6.4	1,078
2020	89	93	17	20	1,220	1,311	5.9	1,075
2021	147	152	9	9	1,358	1,454	10.9	1,071

SEAD-OPEB is a post-employment life insurance plan which does not have annuity payments.

Analysis of Change in Unfunded Accrued Liability (UAL)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
	Amount of Increase (Decrease) (in millions)									
ERS										
Interest (7.30) added to previous UAL	$ 351.8	$ 317.4	$ 321.2	$ 327.6	$ 325.9	$ 331.8	$ 346.2	$ 363.9	$ 338.8	$ 299.2
Accrued liability contribution	(524.9)	(564.6)	(567.4)	(574.4)	(551.0)	(514.7)	(419.4)	(321.7)	(239.1)	(147.7)
Experience:										
Valuation asset growth	(664.4)	59.8	108.6	(130.4)	(48.6)	8.5	(198.9)	(228.9)	253.7	396.3
Pensioners' mortality	(37.9)	13.3	(1.2)	2.6	9.0	12.8	13.9	60.4	20.6	15.5
Turnover and retirements	31.4	41.6	40.7	58.7	39.9	43.6	50.8	45.5	103.7	93.8
New entrants	7.7	9.3	9.6	12.4	7.8	7.8	10.3	9.3	14.1	12.1
Salary increases	(104.9)	9.5	(43.5)	53.5	127.5	(0.6)	(89.6)	(159.4)	(46.8)	(74.2)
Method changes	—	—	—	—	—	—	—	—	(128.3)	—
Amendments (COLAs)	62.9	—	61.2	39.2	28.9	28.4	—	—	—	(118.8)
Assumption changes	1,756.2	578.3	—	161.1	158.3	—	80.4	—	—	—
Programming modification	—	—	—	—	—	—	—	—	—	26.3
Data changes	5.0	6.5	18.4	15.3	(16.2)	3.6	14.4	(6.0)	18.7	12.9
Misc. changes	—	0.1	—	8.1	—	0.1	(0.1)	0.1	(0.1)	12.6
Total	$ 882.9	$ 471.2	$ (52.4)	$ (26.3)	$ 81.5	$ (78.7)	$ (192.0)	$ (236.8)	$ 335.3	$ 528.0

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
	Amount of Increase (Decrease) (in thousands)									
PSERS										
Interest (7.30) added to previous UAL	$ 14,276.3	$ 12,966.7	$ 12,858.1	$ 12,591.0	$ 11,574.7	$ 12,159.9	$ 11,918.7	$ 13,724.1	$ 13,830.7	$ 12,474.4
Accrued liability contribution	(17,933.0)	(20,400.5)	(18,303.2)	(17,584.7)	(15,278.9)	(17,394.7)	(17,704.8)	(15,915.4)	(12,497.7)	(4,843.8)
Experience:										
Valuation asset growth	(47,877.0)	3,100.0	5,770.0	(8,805.0)	(3,247.0)	841.0	(12,207.0)	(14,071.0)	13,868.0	21,922.0
Pensioners' mortality	(5,890.6)	(2,626.4)	(1,104.1)	(2,859.3)	(308.6)	(643.8)	414.9	1,286.7	(381.9)	(1,149.5)
Turnover and retirements	337.8	814.7	(859.2)	(1,024.6)	(879.7)	(228.2)	2,618.5	2,580.8	4,772.4	4,974.5
New entrants	2,305.0	3,516.1	3,701.8	3,206.8	4,334.7	2,798.1	2,875.9	2,786.0	2,757.7	2,783.8
Method changes	—	—	—	—	—	—	—	—	(9,259.0)	—
Amendments	14,281.2	—	12,551.0	16,292.1	15,892.7	—	—	—	—	—
COLAs	(1,604.1)	(13,371.6)	(8,832.0)	(6,469.5)	(6,786.4)	(5,492.0)	(14,772.9)	(14,398.9)	(14,813.1)	(20,664.9)
Assumption changes	12,742.1	34,145.2	—	10,995.2	10,547.5	—	30,030.0	—	—	—
Lawsuit	—	—	110.9	—	—	—	—	—	—	—
Data Changes	(444.5)	—	—	—	—	—	—	—	—	—
Misc. changes	—	(204.7)	(4,405.3)	(352.4)	(29.5)	157.2	43.0	(64.9)	301.7	2,586.9
Total	$ (29,806.8)	$ 17,939.5	$ 1,488.0	$ 5,989.6	$ 15,819.5	$ (7,802.5)	$ 3,216.3	$ (24,072.6)	$ (1,421.2)	$ 18,083.4

(continued)

Analysis of Change in Unfunded Accrued Liability (UAL)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
	Amount of Increase (Decrease) (in thousands)									
GJRS										
Interest (7.30) added to previous UAL	$ (2,146.4)	$ (2,433.7)	$ (2,705.6)	$ (2,416.5)	$ (3,125.4)	$ (3,457.6)	$ (2,259.9)	$ (1,207.3)	$ (1,977.2)	$ (2,774.8)
Accrued liability contribution	2,355.8	2,367.2	3,085.8	2,005.4	1,245.0	(746.2)	3,754.1	5,803.3	5,187.8	4,710.8
Experience:										
Valuation asset growth	(24,103.0)	1,470.0	2,721.4	(4,346.6)	(1,538.9)	562.3	(5,855.8)	(6,807.0)	4,949.6	8,638.5
Pensioners' mortality	1,897.6	1,109.5	1,456.8	543.1	(339.7)	1,530.2	639.6	2,138.5	533.8	376.9
Turnover and retirements	4,751.0	(1,383.9)	1,100.3	(162.6)	2,307.0	872.4	(370.0)	(5,962.8)	3,941.4	2,080.7
New entrants	1,588.3	492.4	1,774.9	338.7	2,353.1	1,190.9	1,539.1	1,272.3	3,138.0	442.3
Salary increases	(4,724.8)	(4,160.2)	(5,839.7)	(5,756.8)	187.7	209.7	(8,848.5)	(10,382.5)	(4,620.6)	(4,536.5)
Method changes	—	—	—	—	—	—	—	—	(6,827.0)	—
Amendments (COLAs)	710.0	—	645.9	993.1	3,345.4	3,179.6	—	—	—	(870.0)
Assumption changes	4,255.0	5,058.9	—	3,696.0	3,615.6	—	(5,030.9)	—	—	—
Data changes	1,509.0	1,416.2	1,484.4	—	—	—	—	—	—	—
Programming modification	—	—	—	—	—	—	—	—	4,606.4	1,648.9
Misc. changes	—	—	—	263.6	1,402.0	1,086.9	464.1	1,110.1	1,333.8	917.5
Total	$ (13,907.5)	$ 3,936.4	$ 3,724.2	$ (4,842.6)	$ 9,451.8	$ 4,428.2	$ (15,968.2)	$ (14,035.4)	$ 10,266.0	$ 10,634.3

	Amount of Increase (Decrease) (in thousands)									
LRS										
Interest (7.30) added to previous UAL	$ (665.6)	$ (616.1)	$ (581.5)	$ (535.7)	$ (497.8)	$ (445.9)	$ (421.9)	$ (343.3)	$ (301.8)	$ (302.5)
Accrued liability contribution	405.5	352.1	315.2	322.9	250.3	338.3	173.4	161.9	(62.4)	33.9
Experience:										
Valuation asset growth	(1,734.8)	123.6	245.1	(342.2)	(129.2)	24.1	(491.6)	(576.5)	513.9	829.0
Pensioners' mortality	(43.5)	(19.8)	29.6	118.3	245.9	(66.1)	(50.8)	323.8	(29.6)	19.1
Turnover and retirements	(65.1)	(119.1)	(180.7)	(175.2)	(257.7)	(198.9)	(10.1)	(347.5)	17.4	(84.3)
New entrants	96.6	3.7	57.2	16.7	99.2	26.8	35.1	135.2	144.5	16.9
Method changes	—	—	—	—	—	—	—	—	(418.0)	—
Amendments	99.6	—	101.9	67.6	50.4	51.5	—	—	(488.1)	(549.7)
COLAs	(431.8)	(444.3)	(457.4)	(462.8)	(458.3)	(418.2)	(452.6)	(470.8)	—	—
Assumption changes	220.2	60.4	—	229.1	223.7	—	852.3	—	—	—
Data changes	(2.8)	(19.8)	(3.6)	—	—	—	—	—	—	—
Misc. changes	—	—	0.9	34.8	(127.9)	(4.7)	46.2	69.9	71.1	46.4
Total	$ (2,121.7)	$ (679.3)	$ (473.3)	$ (726.5)	$ (601.5)	$ (693.1)	$ (320.0)	$ (1,047.3)	$ (553.1)	$ 8.8

(continued)

Analysis of Change in Unfunded Accrued Liability (UAL)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
	Amount of Increase (Decrease) (in thousands)									
GMPF										
Interest (7.30) added to previous UAL	$ 1,550.9	$ 1,436.0	$ 1,479.0	$ 1,489.4	$ 1,484.8	$ 1,407.5	$ 1,316.3	$ 1,344.3	$ 1,360.8	$ 1,354.9
Accrued liability contribution	(2,381.5)	(2,348.7)	(2,285.4)	(2,140.6)	(1,747.5)	(1,698.6)	(1,765.6)	(1,775.3)	(1,661.5)	(1,502.4)
Experience:										
Valuation asset growth	(1,443.0)	47.0	68.0	(181.0)	(50.0)	59.0	(203.0)	(247.0)	39.3	107.0
Pensioners' mortality	34.0	(36.1)	(20.1)	40.7	(109.2)	119.3	126.1	88.8	80.2	68.3
Turnover and retirements	(136.4)	78.5	(17.0)	143.1	11.0	233.3	120.5	(87.9)	186.4	17.9
New entrants	277.1	331.6	179.1	208.9	138.9	165.1	236.9	142.6	137.8	127.1
Method changes	—	—	—	—	—	—	—	—	(393.0)	—
Assumption changes	696.7	2,313.3	—	570.2	537.6	—	985.8	—	—	—
Data changes	61.1	(243.0)	10.4	—	—	—	—	—	—	—
Misc. changes	(0.4)	(3.9)	(3.0)	2.6	64.2	744.4	398.7	161.1	30.6	(93.6)
Total	$ (1,341.5)	$ 1,574.7	$ (589.0)	$ 133.3	$ 329.8	$ 1,030.0	$ 1,215.7	$ (373.4)	$ (219.4)	$ 79.2

SEAD-OPEB: Data is not available.

Solvency Test Results

(in thousands)

ERS

Actuarial Valuation as of 6/30	Actuarial Accrued Liability for: Active Member Contributions (1)	Retirants & Beneficiaries (2)	Active Member (Employer Funded Portion) (3)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets (1)	(2)	(3)
2012	$ 460,861	$ 11,420,011	$ 4,897,050	$ 12,260,595	100.0 %	100.0 %	7.8 %
2013	405,841	11,935,364	4,641,244	12,129,803	100.0	98.2	—
2014	385,058	12,108,737	4,498,168	12,376,120	100.0	99.0	—
2015	367,462	12,520,321	4,211,744	12,675,649	100.0	98.3	—
2016	368,281	12,592,980	4,238,427	12,854,518	100.0	99.2	—
2017	368,935	12,729,977	4,415,986	13,088,185	100.0	99.9	—
2018	372,375	12,927,796	4,512,270	13,412,046	100.0	100.0	2.5
2019	371,147	13,077,253	4,380,820	13,481,219	100.0	100.0	0.7
2020	372,510	13,406,538	4,596,749	13,556,622	100.0	98.3	—
2021	371,048	14,782,338	4,932,309	14,383,600	100.0	94.8	—

PSERS

Actuarial Valuation as of 6/30	Actuarial Accrued Liability for: Active Member Contributions (1)	Retirants & Beneficiaries (2)	Active Member (Employer Funded Portion) (3)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets (1)	(2)	(3)
2012	$ 16,917	$ 537,284	$ 341,123	$ 710,915	100.0 %	100.0 %	45.9 %
2013	17,016	549,796	343,444	727,268	100.0	100.0	46.7
2014	16,995	566,344	341,026	765,450	100.0	100.0	53.4
2015	17,196	585,471	364,742	805,277	100.0	100.0	55.5
2016	17,413	609,807	361,663	834,554	100.0	100.0	57.3
2017	18,077	640,197	377,661	865,786	100.0	100.0	54.9
2018	18,570	674,222	388,392	905,046	100.0	100.0	54.6
2019	19,109	695,624	393,925	931,032	100.0	100.0	54.9
2020	19,898	721,554	415,545	961,431	100.0	100.0	52.9
2021	20,188	763,615	424,152	1,042,196	100.0	100.0	60.9

GJRS

Actuarial Valuation as of 6/30	Actuarial Accrued Liability for: Active Member Contributions (1)	Retirants & Beneficiaries (2)	Active Member (Employer Funded Portion) (3)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets (1)	(2)	(3)
2012	$ 73,998	$ 141,880	$ 92,984	$ 335,225	100.0 %	100.0 %	100.0 %
2013	73,949	162,364	99,479	351,889	100.0	100.0	100.0
2014	80,007	162,527	100,894	373,560	100.0	100.0	100.0
2015	84,170	174,147	91,981	396,399	100.0	100.0	100.0
2016	91,991	180,107	104,642	418,412	100.0	100.0	100.0
2017	84,841	220,738	102,028	439,828	100.0	100.0	100.0
2018	88,890	231,811	104,023	461,787	100.0	100.0	100.0
2019	85,722	256,060	98,882	474,003	100.0	100.0	100.0
2020	89,842	267,433	100,913	487,591	100.0	100.0	100.0
2021	82,116	303,301	97,202	525,929	100.0	100.0	100.0

(continued)

Solvency Test Results
(in thousands)

LRS

Actuarial Valuation as of 6/30	Actuarial Accrued Liability for: Active Member Contributions (1)	Retirants & Beneficiaries (2)	Active Member (Employer Funded Portion) (3)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets (1)	(2)	(3)
2012	$ 3,185	$ 19,200	$ 2,581	$ 28,990	100.0 %	100.0 %	100.0 %
2013	2,951	19,623	2,330	29,481	100.0	100.0	100.0
2014	3,430	19,006	2,477	30,538	100.0	100.0	100.0
2015	3,287	19,873	2,530	31,635	100.0	100.0	100.0
2016	3,630	19,202	2,701	32,171	100.0	100.0	100.0
2017	3,543	19,382	2,749	32,913	100.0	100.0	100.0
2018	3,862	19,048	2,995	33,871	100.0	100.0	100.0
2019	3,664	19,204	2,846	34,153	100.0	100.0	100.0
2020	4,007	18,936	2,600	34,661	100.0	100.0	100.0
2021	3,628	20,179	2,031	37,078	100.0	100.0	100.0

GMPF

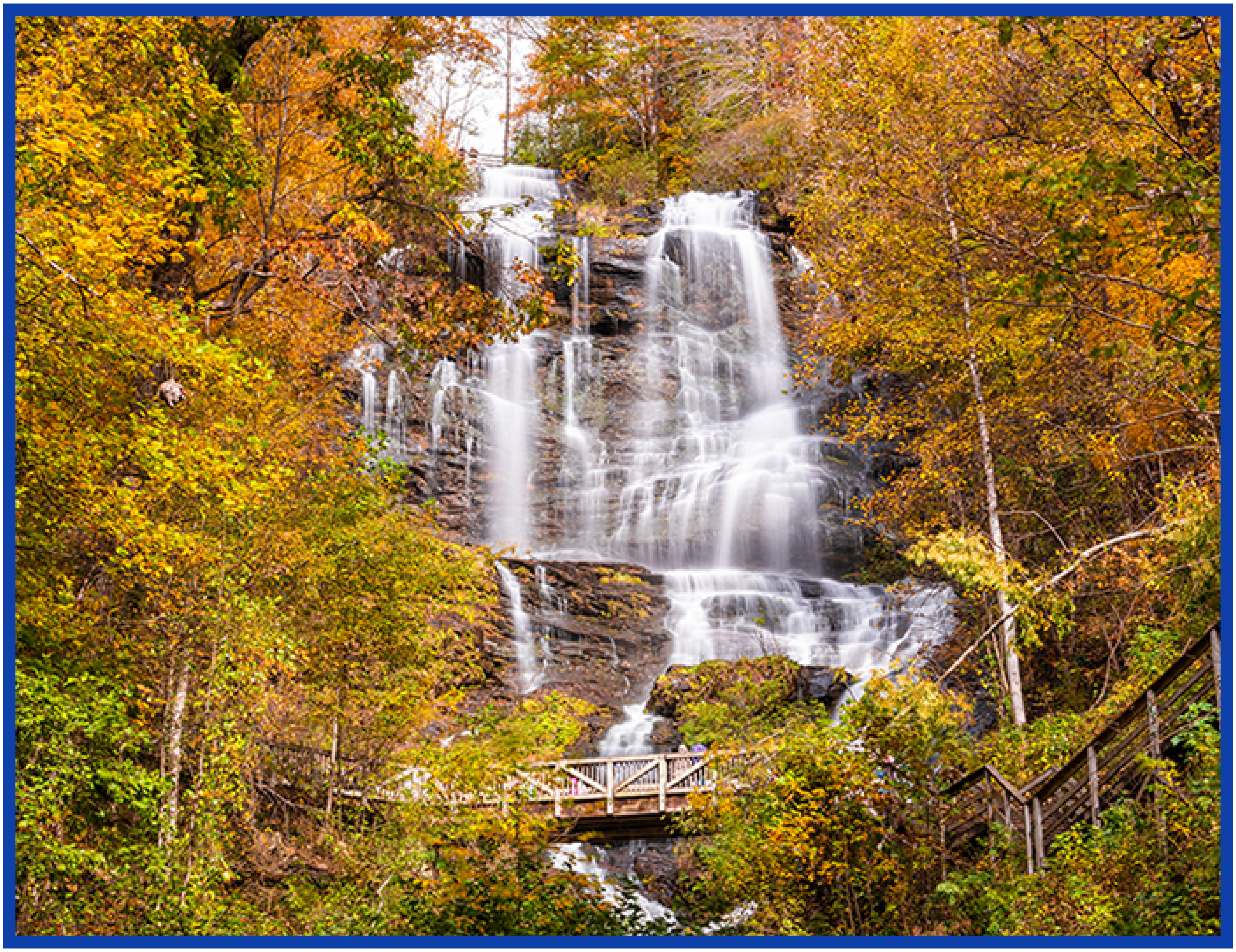
Actuarial Valuation as of 6/30	Actuarial Accrued Liability for: Active Member Contributions (1)	Retirants & Beneficiaries (2)	Active Member (Employer Funded Portion) (3)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets (1)	(2)	(3)
2012	$ —	$ 17,518	$ 10,713	$ 10,087	n/a	57.6 %	— %
2013	—	19,396	10,660	12,131	n/a	62.5	—
2014	—	21,389	10,426	14,264	n/a	66.7	—
2015	—	24,075	11,138	16,446	n/a	68.3	—
2016	—	26,337	11,874	18,414	n/a	69.9	—
2017	—	28,867	11,864	20,604	n/a	71.4	—
2018	—	30,964	12,658	23,362	n/a	75.4	—
2019	—	33,435	12,355	26,119	n/a	78.1	—
2020	—	37,021	13,308	29,083	n/a	78.6	—
2021	—	39,880	13,711	33,687	n/a	84.5	—

SEAD-OPEB

Actuarial Valuation as of 6/30	Actuarial Accrued Liability for: Active Member Contributions (1)	Retirants & Beneficiaries (2)	Active Member (Employer Funded Portion) (3)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets (1)	(2)	(3)
2012	$ —	$ 528,165	$ 176,452	$ 818,284	n/a	100.0 %	100.0 %
2013	—	586,228	168,558	907,831	n/a	100.0	100.0
2014	—	621,502	166,518	1,037,901	n/a	100.0	100.0
2015	—	621,426	148,321	1,046,559	n/a	100.0	100.0
2016	—	652,291	180,078	1,028,541	n/a	100.0	100.0
2017	—	693,118	183,468	1,121,251	n/a	100.0	100.0
2018	—	735,214	183,943	1,189,462	n/a	100.0	100.0
2019	—	772,657	174,082	1,233,856	n/a	100.0	100.0
2020	—	757,612	146,920	1,256,718	n/a	100.0	100.0
2021	—	791,437	139,809	1,566,821	n/a	100.0	100.0

Statistical Section

Georgia's Waterfalls



Amicalola Falls

Amicalola Falls

Amicalola Falls Loop Trail: 2.1 miles, difficult

Amicalola Falls State Park is in central-north Georgia, near Dawsonville.

Amicalola Falls drops over 730 feet, making it Georgia's tallest waterfall. It cascades in multiple tiers of white, misty water from a towering cliff in Georgia's Chattahoochee National Forest. This hike is a 1-mile journey to the crest of this enormous waterfall, grabbing stunning views from the top before descending alongside the falls along bridges and steep stairs.

Stunning views of the surrounding mountains emerge on the trail's left side as the hike climbs in elevation, and the sounds of the nearby plunging waterfall become audible as the trail rises toward the crest. The hike descends and then reaches a paved pathway, crossing a bridge spanning the waterfall's upper third.

The hike continues its descent, following stairs and landings and catching uninterrupted views of the waterfall and then parallels the waterfall's lower cascades, offering up-close views of the creek as it spills over tumbled boulders in small cascading waterfalls.

Learn more at atlantatrails.com

Statistical Section

Introduction

The objective of the statistical section is to provide a historical perspective, context and relevant details to assist readers in evaluating the condition of the plans. All non-accounting data is taken from the System's internal sources except for information which is derived from the actuarial valuations. Due to the adoption of GASB 74 in FY2017, historical detail may not be complete for the Schedule of Revenue and Expense and will be added each year. Statistical information is not presented for SCJRF and DARF as both plans are immaterial, have no active members, and are closed to new members.

Fiduciary Funds

Financial Trends

The following schedules have been included to help the readers understand how the System's financial position has changed over the past 10 years:

Additions by Source
Deductions by Type
Changes in Fiduciary Net Position

Operational Trends

The following schedules have been included to help the readers understand how the System's financial report relates to the services provided by the System and the activities it performs:

Retiree Information Withdrawal (Refund) Data
New Retiree Elections
Principal Participating Employers
Statistical Data as of June 30, 2022

Proprietary Fund

Schedule of Revenue and Expenses
10-year Schedule of Membership

Additions by Source - Contribution/Investment Income

(in thousands)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ERS										
Member Contributions	$ 38,955	$ 32,423	$ 33,713	$ 31,961	$ 35,863	$ 37,130	$ 36,252	$ 35,837	$ 35,027	$ 36,130
Employer Contributions	358,992	418,807	505,668	583,082	613,201	639,302	638,989	634,108	606,919	611,410
Nonemployer Contributions	—	10,945	12,495	12,484	12,080	12,865	10,220	9,749	9,048	8,313
Net Investment Income (Loss)	1,495,849	2,021,748	474,147	141,292	1,475,626	1,166,013	873,404	703,840	3,843,581	(1,855,595)
Other	—	—	10	10	10	10	10	10	10	10
Total Additions to (Deductions from) Fiduciary Net Position	$1,893,796	$2,483,923	$1,026,033	$ 768,829	$2,136,780	$1,855,320	$1,558,875	$1,383,544	$4,494,585	$(1,199,732)
PSERS										
Member Contributions	$ 1,538	$ 1,659	$ 1,800	$ 1,925	$ 2,084	$ 2,162	$ 2,256	$ 2,338	$ 2,222	$ 2,256
Employer Contributions	24,829	—	—	—	—	—	—	—	—	—
Nonemployer Contributions	—	27,160	28,461	28,580	26,277	29,276	30,263	32,496	30,264	32,491
Net Investment Income (Loss)	88,067	123,799	30,129	9,809	97,715	78,418	60,553	49,913	277,705	(138,145)
Other	—	—	—	—	—	—	—	—	—	—
Total Additions to (Deductions from) Fiduciary Net Position	$ 114,434	$ 152,618	$ 60,390	$ 40,314	$ 126,076	$ 109,856	$ 93,072	$ 84,747	$ 310,191	$ (103,398)
GJRS										
Member Contributions	$ 4,408	$ 4,731	$ 5,061	$ 5,507	$ 4,906	$ 4,910	$ 5,469	$ 5,005	$ 5,190	$ 5,466
Employer Contributions	2,279	1,373	2,696	4,754	4,081	4,725	3,117	4,022	3,830	7,585
Nonemployer Contributions	—	1,002	1,564	2,869	2,603	1,841	2,137	2,442	2,240	2,377
Net Investment Income (Loss)	42,104	60,012	14,697	5,055	49,259	39,877	30,827	25,414	140,103	(69,334)
Other	—	—	—	—	—	—	—	—	—	—
Total Additions to (Deductions from) Fiduciary Net Position	$ 48,791	$ 67,118	$ 24,018	$ 18,185	$ 60,849	$ 51,353	$ 41,550	$ 36,883	$ 151,363	$ (53,906)
LRS										
Member Contributions	$ 373	$ 282	$ 327	$ 328	$ 327	$ 323	$ 339	$ 325	$ 290	$ 344
Employer Contributions	128	45	—	—	—	—	—	—	—	—
Nonemployer Contributions	—	—	—	—	—	—	—	—	—	—
Net Investment Income (Loss)	3,573	4,969	1,189	363	3,741	2,962	2,228	1,824	9,928	(4,848)
Other	—	—	—	—	—	—	—	—	—	—
Total Additions to (Deductions from) Fiduciary Net Position	$ 4,074	$ 5,296	$ 1,516	$ 691	$ 4,068	$ 3,285	$ 2,567	$ 2,149	$ 10,218	$ (4,504)

(continued)

Additions by Source - Contribution/Investment Income

(in thousands)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
GMPF										
Member Contributions	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Employer Contributions	1,703	1,892	1,893	1,990	2,018	2,377	2,537	2,611	2,684	2,697
Nonemployer Contributions	—	—	—	—	—	—	—	—	—	—
Net Investment Income (Loss)	1,374	2,179	585	240	2,262	1,928	1,683	1,485	8,709	(4,693)
Other	—	—	—	—	—	—	—	—	—	—
Total Additions to (Deductions from) Fiduciary Net Position	$ 3,077	$ 4,071	$ 2,478	$ 2,230	$ 4,280	$ 4,305	$ 4,220	$ 4,096	$ 11,393	$ (1,996)
SEAD - OPEB										
Member Contributions	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Employer Contributions	—	—	—	—	1	—	5	—	—	—
Insurance Premiums	5,075	4,502	4,187	3,931	3,793	3,599	3,328	3,088	2,817	2,641
Net Investment Income (Loss)	108,148	154,868	37,876	12,559	125,550	101,542	79,193	65,248	362,663	(179,369)
Other	—	—	—	—	—	—	—	—	—	—
Total Additions to (Deductions from) Fiduciary Net Position	$ 113,223	$ 159,370	$ 42,063	$ 16,490	$ 129,344	$ 105,141	$ 82,526	$ 68,336	$ 365,480	$ (176,728)
Defined Contribution Plan - GDCP										
Member Contributions	$ 16,676	$ 16,290	$ 15,655	$ 14,708	$ 14,921	$ 14,585	$ 14,578	$ 14,658	$ 15,759	$ 16,228
Employer Contributions	—	—	—	—	—	—	—	—	—	—
Nonemployer Contributions	—	—	—	—	—	—	—	—	—	—
Net Investment Income (Loss)	137	1,368	1,326	5,591	(1,056)	(356)	8,324	9,078	(1,867)	(7,992)
Other	—	—	—	—	—	—	—	—	—	—
Total Additions to (Deductions from) Fiduciary Net Position	$ 16,813	$ 17,658	$ 16,981	$ 20,299	$ 13,865	$ 14,229	$ 22,902	$ 23,736	$ 13,892	$ 8,236

(continued)

Additions by Source - Contribution/Investment Income

(in thousands)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Defined Contribution Plan - 401(k)										
Member Contributions	$ 44,428	$ 53,724	$ 64,870	$ 79,422	$ 93,608	$ 110,848	$ 119,770	$ 129,639	$ 132,123	$ 146,280
Employer Contributions	18,279	21,513	25,615	29,982	36,761	43,176	47,170	51,138	52,023	57,538
Nonemployer Contributions	—	—	—	—	—	—	—	—	—	—
Net Investment Income (Loss)	52,835	78,583	17,665	5,281	88,771	72,671	61,106	40,850	371,775	(222,604)
Other	948	1,122	1,298	1,429	1,584	1,744	544	426	567	583
Total Additions to (Deductions from) Fiduciary Net Position	$ 116,490	$ 154,942	$ 109,448	$ 116,114	$ 220,724	$ 228,439	$ 228,590	$ 222,053	$ 556,488	$ (18,203)
Defined Contribution Plan - 457										
Member Contributions	$ 18,753	$ 17,623	$ 17,445	$ 17,413	$ 18,899	$ 20,133	$ 20,264	$ 20,216	$ 19,566	$ 21,125
Employer Contributions	—	—	—	—	—	—	—	—	—	—
Nonemployer Contributions	—	—	—	—	—	—	—	—	—	—
Net Investment Income (Loss)	55,737	73,746	18,991	7,855	59,541	46,748	39,100	25,563	162,958	(83,190)
Other	—	—	—	—	—	—	53	25	61	46
Total Additions to (Deductions from) Fiduciary Net Position	$ 74,490	$ 91,369	$ 36,436	$ 25,268	$ 78,440	$ 66,881	$ 59,417	$ 45,804	$ 182,585	$ (62,019)
Suvivor's Benefit Fund - SBF										
Member Contributions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$ —	$ —	$ —
Employer Contributions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	—	—	—
Nonemployer Contributions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	—	—	—
Net Investment Income (Loss)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8,701	49,353	(25,611)
Other	n/a	n/a	n/a	n/a	n/a	n/a	n/a	—	—	—
Total Additions to (Deductions from) Fiduciary Net Position	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$ 8,701	$ 49,353	$ (25,611)

Deductions by Type

(in thousands)

ERS

Fiscal Year	Benefit Payments: Service	Partial Lump-Sum Option	Disability	Survivor Benefits	Total Benefit Payments	Net Administrative Expenses	Refunds	Total Deductions from Fiduciary Net Position
2013	$ 1,007,816	$ 35,933	$ 145,152	$ 80,300	$ 1,269,201	$ 12,889	$ 7,390	$1,289,480
2014	1,051,993	24,567	146,245	83,193	1,305,998	7,440	8,757	1,322,195
2015	1,076,676	24,391	147,418	85,794	1,334,278	7,872	7,450	1,349,600
2016	1,092,909	19,154	147,706	87,843	1,347,633	8,506	7,087	1,363,226
2017	1,130,996	19,765	151,772	91,750	1,394,283	8,732	9,033	1,412,048
2018	1,146,226	21,624	152,469	92,979	1,413,298	8,056	7,585	1,428,939
2019	1,171,942	20,535	155,193	96,086	1,443,756	7,142	7,691	1,458,589
2020	1,205,502	19,108	159,443	100,392	1,484,445	7,641	6,644	1,498,730
2021	1,164,687	15,991	154,948	99,149	1,434,775	7,587	6,604	1,448,966
2022	1,218,706	14,277	161,636	108,285	1,502,904	7,577	7,182	1,517,663

PSERS

Fiscal Year	Benefit Payments: Service	Disability	Survivor Benefits	Total Benefit Payments	Net Administrative Expenses	Refunds	Total Deductions from Fiduciary Net Position
2013	$ 47,805	$ 5,328	$ 1,908	$ 55,041	$ 2,021	$ 492	$ 57,554
2014	48,911	5,280	1,998	56,189	1,450	514	58,153
2015	49,704	5,227	2,041	56,972	1,545	456	58,973
2016	50,572	5,172	2,160	57,903	1,321	465	59,689
2017	52,012	5,117	2,249	59,378	1,308	1,031	61,717
2018	54,257	5,114	2,449	61,820	1,331	701	63,852
2019	56,008	4,991	2,638	63,637	1,377	609	65,623
2020	58,412	5,000	2,678	66,090	1,424	572	68,086
2021	58,744	4,850	2,821	66,415	1,421	633	68,469
2022	60,307	4,805	3,091	68,203	1,523	614	70,340

GJRS

Fiscal Year	Benefit Payments: Service	Disability	Survivor Benefits	Total Benefit Payments	Net Administrative Expenses	Refunds	Total Deductions from Fiduciary Net Position
2013	$ 14,273	$ 112	$ 1,865	$ 16,250	$ 313	$ 105	$ 16,668
2014	15,305	112	2,024	17,441	754	22	18,217
2015	16,084	112	2,169	18,365	819	772	19,956
2016	16,677	112	2,222	19,011	754	261	20,026
2017	19,349	114	2,321	21,784	728	166	22,678
2018	22,239	117	2,578	24,934	794	150	25,878
2019	24,642	119	2,701	27,462	820	553	28,835
2020	26,203	120	2,940	29,263	849	213	30,325
2021	27,870	117	2,971	30,958	846	63	31,867
2022	30,881	85	3,084	34,050	893	23	34,966

(continued)

Deductions by Type

(in thousands)

LRS

Fiscal Year	Benefit Payments: Service	Survivor Benefits	Total Benefit Payments	Net Administrative Expenses	Refunds	Total Deductions from Fiduciary Net Position
2013	$ 1,376	$ 448	$ 1,824	$ 119	$ 88	$ 2,031
2014	1,336	465	1,801	152	30	1,983
2015	1,315	441	1,756	169	26	1,951
2016	1,294	429	1,724	313	38	2,075
2017	1,323	440	1,763	224	75	2,062
2018	1,347	425	1,772	283	22	2,077
2019	1,383	473	1,856	290	70	2,216
2020	1,362	433	1,795	305	21	2,121
2021	1,293	427	1,720	311	42	2,073
2022	1,369	449	1,818	327	33	2,178

GMPF

Fiscal Year	Benefit Payments: Service*	Total Benefit Payments	Net Administrative Expenses	Total Deductions from Fiduciary Net Position
2013	$ 772	$ 772	$ 31	$ 803
2014	841	841	110	951
2015	896	896	121	1,017
2016	963	963	262	1,225
2017	1,042	1,042	244	1,286
2018	1,138	1,138	225	1,363
2019	1,221	1,221	235	1,456
2020	1,297	1,297	249	1,546
2021	1,428	1,428	255	1,683
2022	1,527	1,527	266	1,793

*The only type of retirement in GMPF is a service retirement.

SEAD-OPEB

Fiscal Year	Benefit Payments: Death Benefits**	Total Benefit Payments	Net Administrative Expenses	Total Deductions from Fiduciary Net Position
2013	$ 28,482	$ 28,482	$ 203	$ 28,685
2014	28,891	28,891	414	29,305
2015	32,979	32,979	428	33,407
2016	33,911	33,911	599	34,510
2017	36,058	36,058	576	36,634
2018	36,249	36,249	681	36,930
2019	37,416	37,416	716	38,132
2020	44,754	44,754	720	45,474
2021	54,680	54,680	697	55,377
2022	55,053	55,053	755	55,808

**The only type of benefit in SEAD-OPEB is a death benefit.

(continued)

Deductions by Type

(in thousands)

Defined Contribution Plan - GDCP

Fiscal Year	Benefit Payments: Periodic Payments	Benefit Payments: Total Benefit Payments	Net Administrative Expenses	Refunds	Total Deductions from Fiduciary Net Position
2013	$ 9	$ 9	$ 1,160	$ 14,415	$ 15,584
2014	9	9	991	17,721	18,721
2015	—	—	990	22,340	23,330
2016	—	35	766	11,911	12,712
2017	—	—	785	11,544	12,329
2018	—	—	852	10,080	10,932
2019	10	10	882	10,931	11,823
2020	7	7	913	10,510	11,430
2021	9	9	902	10,701	11,612
2022	9	9	987	10,069	11,065

Defined Contribution Plan - 401(k)

Fiscal Year	Benefit Payments: Distribu-tions	Benefit Payments: Total Benefit Payments	Net Administrative Expenses	Total Deductions from Fiduciary Net Position
2013	$ 57,351	$ 57,351	$ 2,457	$ 59,808
2014	43,133	43,133	2,300	45,433
2015	95,428	95,428	2,755	98,183
2016	46,508	46,508	2,832	49,340
2017	55,866	55,866	3,096	58,962
2018	64,103	64,103	3,639	67,742
2019	79,644	79,644	3,431	83,075
2020	92,355	92,355	3,816	96,171
2021	127,352	127,352	3,554	130,906
2022	137,593	137,593	3,437	141,030

Defined Contribution Plan - 457

Fiscal Year	Benefit Payments: Distribu-tions	Benefit Payments: Total Benefit Payments	Net Administrative Expenses	Total Deductions from Fiduciary Net Position
2013	$ 63,388	$ 63,388	$ 996	$ 64,384
2014	45,807	45,807	812	46,619
2015	50,479	50,479	866	51,345
2016	43,288	43,288	820	44,108
2017	38,872	38,872	789	39,661
2018	40,690	40,690	442	41,132
2019	42,081	42,081	724	42,805
2020	40,067	40,067	745	40,812
2021	52,207	52,207	671	52,878
2022	50,440	50,440	585	51,025

(continued)

Deductions by Type
(in thousands)

Survivors' Benefit Fund

	Benefit Payments			
Fiscal Year	Death Benefits	Total Benefit Payments	Net Administrative Expenses	Total Deductions from Fiduciary Net Position
2013	n/a	n/a	n/a	n/a
2014	n/a	n/a	n/a	n/a
2015	n/a	n/a	n/a	n/a
2016	n/a	n/a	n/a	n/a
2017	n/a	n/a	n/a	n/a
2018	n/a	n/a	n/a	n/a
2019	n/a	n/a	n/a	n/a
2020	—	—	—	—
2021	—	—	—	—
2022	—	—	—	—

Changes in Fiduciary Net Position

(in thousands)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ERS										
Total Additions	$1,893,796	$2,483,923	$1,026,033	$ 768,829	$2,136,780	$1,855,320	$1,558,875	$1,383,544	$4,494,585	$(1,199,732)
Total Deductions	1,289,480	1,322,195	1,349,600	1,363,226	1,412,048	1,428,939	1,458,589	1,498,730	1,448,966	1,517,663
Transfer In (Out)	(5,009)	—	—	—	—	—	—	—	—	—
Changes in Fiduciary Net Position	599,307	1,161,728	(323,567)	(594,397)	724,732	426,381	100,286	(115,186)	3,045,619	(2,717,395)
PSERS										
Total Additions	114,434	152,618	60,390	40,314	126,076	109,856	93,072	84,747	310,191	(103,398)
Total Deductions	57,554	58,153	58,973	59,689	61,717	63,852	65,623	68,086	68,469	70,340
Transfer In (Out)	—	—	—	—	—	—	—	—	—	—
Changes in Fiduciary Net Position	56,880	94,465	1,417	(19,375)	64,359	46,004	27,449	16,661	241,722	(173,738)
GJRS										
Total Additions	48,791	67,118	24,018	18,185	60,849	51,353	41,550	36,883	151,363	(53,906)
Total Deductions	16,668	18,217	19,956	20,026	22,678	25,878	28,835	30,325	31,867	34,966
Transfer In (Out)	—	—	—	—	—	—	—	—	—	—
Changes in Fiduciary Net Position	32,123	48,901	4,062	(1,841)	38,171	25,475	12,715	6,558	119,496	(88,872)
LRS										
Total Additions	4,074	5,296	1,516	691	4,068	3,285	2,567	2,149	10,218	(4,504)
Total Deductions	2,031	1,983	1,951	2,075	2,062	2,077	2,216	2,121	2,073	2,178
Transfer In (Out)	—	—	—	—	—	—	—	—	—	—
Changes in Fiduciary Net Position	2,043	3,313	(435)	(1,384)	2,006	1,208	351	28	8,145	(6,682)
GMPF										
Total Additions	3,077	4,071	2,478	2,230	4,280	4,305	4,220	4,096	11,393	(1,996)
Total Deductions	803	951	1,017	1,225	1,286	1,363	1,456	1,546	1,683	1,793
Transfer In (Out)	—	—	—	—	—	—	—	—	—	—
Changes in Fiduciary Net Position	2,274	3,120	1,461	1,005	2,994	2,942	2,764	2,550	9,710	(3,789)

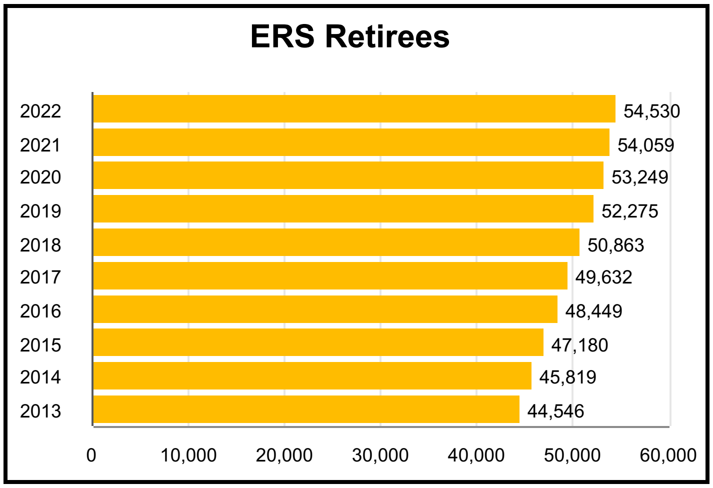
(continued)

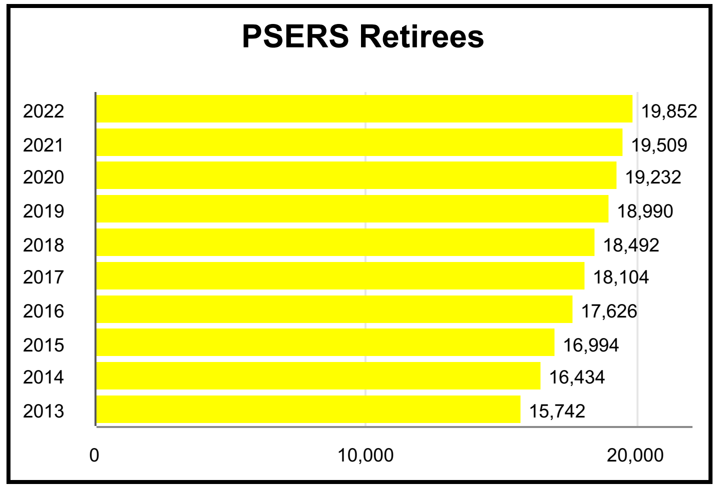
Changes in Fiduciary Net Position

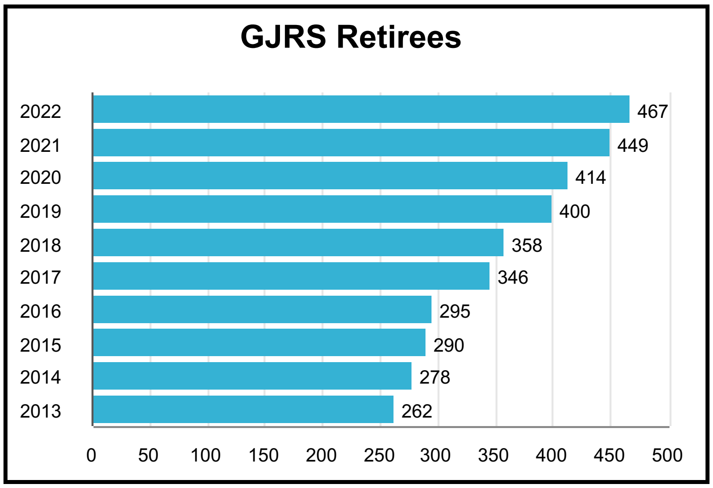
(in thousands)

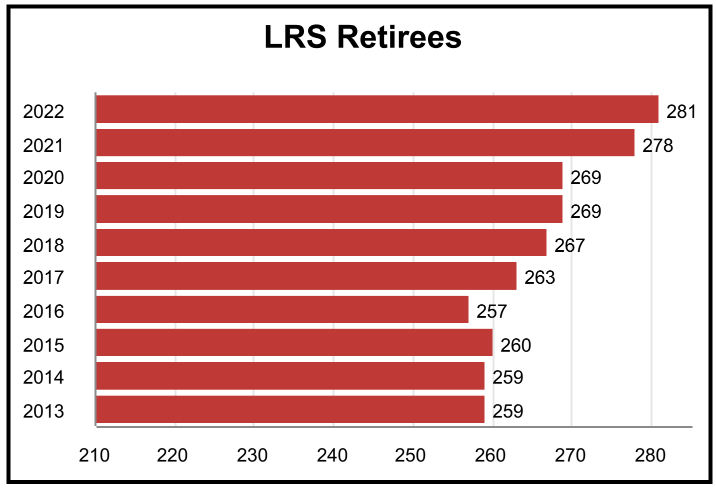
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
SEAD - OPEB										
Total Additions	$ 113,223	$ 159,370	$ 42,063	$ 16,490	$ 129,344	$ 105,141	$ 82,526	$ 68,336	$ 365,480	$ (176,728)
Total Deductions	28,685	29,305	33,407	34,510	36,634	36,930	38,132	45,474	55,377	55,808
Transfer In (Out)	5,009	5	2	2	—	—	—	—	—	—
Changes in Fiduciary Net Position	89,547	130,070	8,658	(18,018)	92,710	68,211	44,394	22,862	310,103	(232,536)
Defined Contribution Plan - GDCP										
Total Additions	16,813	17,658	16,981	20,299	13,865	14,229	22,902	23,736	13,892	8,236
Total Deductions	15,584	18,721	23,330	12,712	12,329	10,932	11,823	11,430	11,612	11,065
Transfer In (Out)	—	—	—	—	—	—	—	—	—	—
Changes in Fiduciary Net Position	1,229	(1,063)	(6,349)	7,587	1,536	3,297	11,079	12,306	2,280	(2,829)
Defined Contribution Plan - 401(k)										
Total Additions	116,490	154,942	109,448	116,114	220,724	228,439	228,590	222,053	556,488	(18,203)
Total Deductions	59,808	45,433	98,183	49,340	58,962	67,742	83,075	96,171	130,906	141,030
Transfer In (Out)	—	—	—	—	—	—	—	—	—	—
Changes in Fiduciary Net Position	56,682	109,509	11,265	66,774	161,762	160,697	145,515	125,882	425,582	(159,233)
Defined Contribution Plan - 457										
Total Additions	74,490	91,369	36,436	25,268	78,440	66,881	59,417	45,804	182,585	(62,019)
Total Deductions	64,384	46,619	51,345	44,108	39,661	41,132	42,805	40,812	52,878	51,025
Transfer In (Out)	—	—	—	—	—	—	—	—	—	—
Changes in Fiduciary Net Position	10,106	44,750	(14,909)	(18,840)	38,779	25,749	16,612	4,992	129,707	(113,044)
Survivors' Benefit Fund										
Total Additions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8,701	49,353	(25,611)
Total Deductions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	—	—	—
Transfer In (Out)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	—	—	—
Changes in Fiduciary Net Position	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8,701	49,353	(25,611)

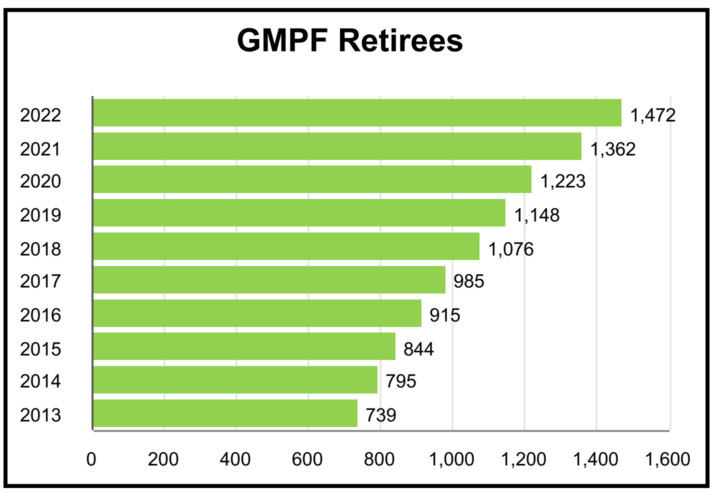
Number of Retirees



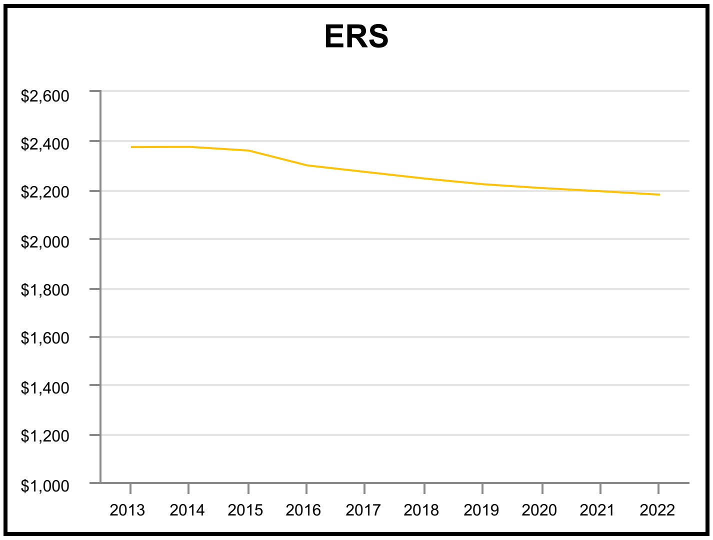


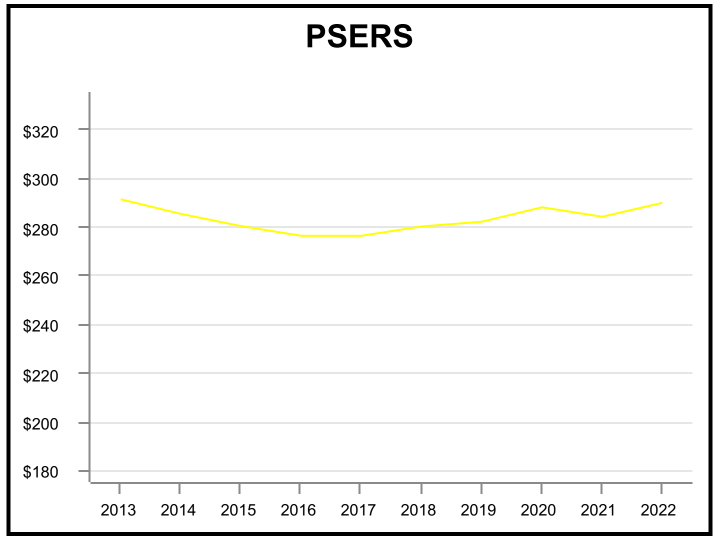


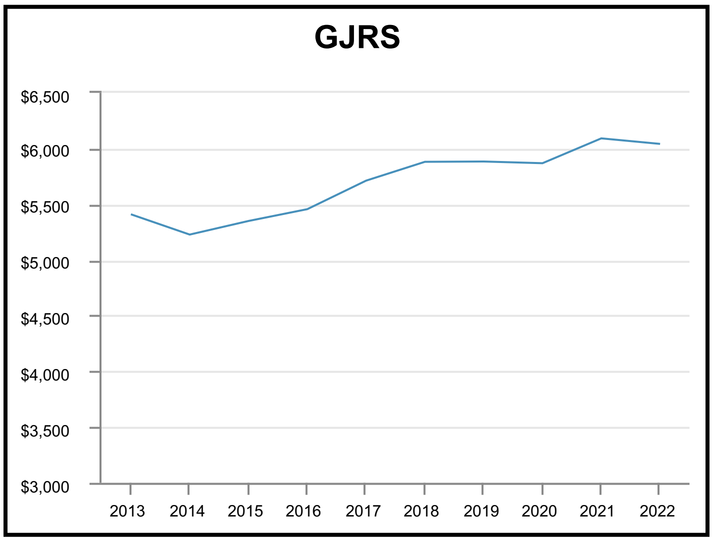


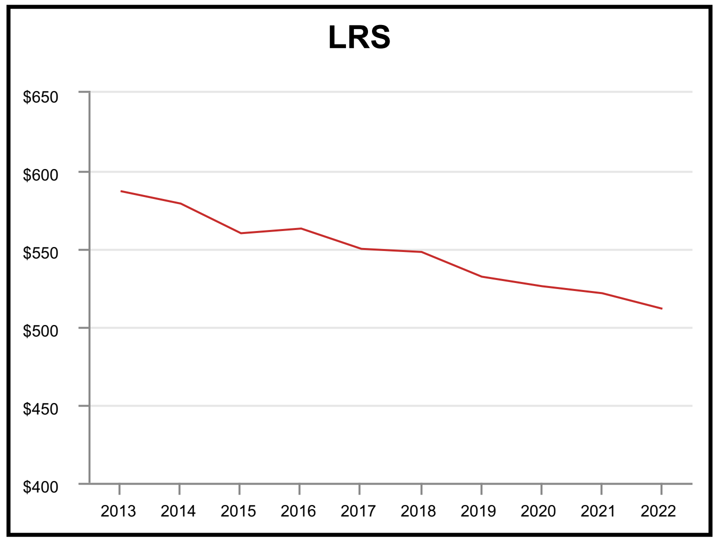


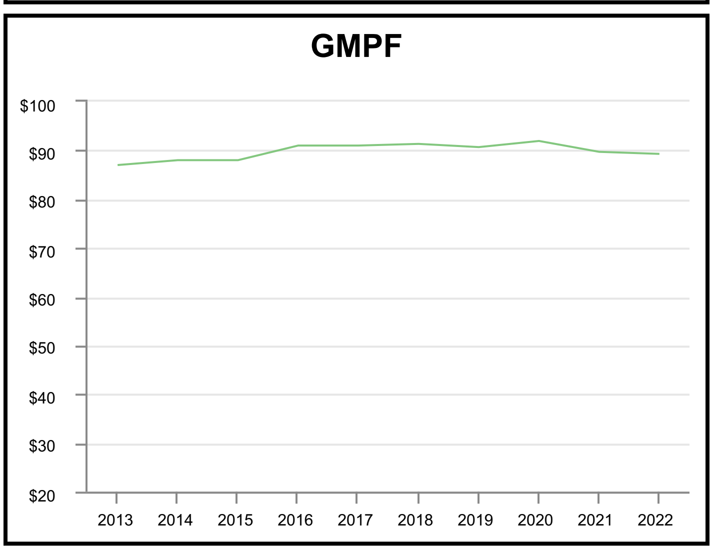
Average Monthly Payments to Retirees





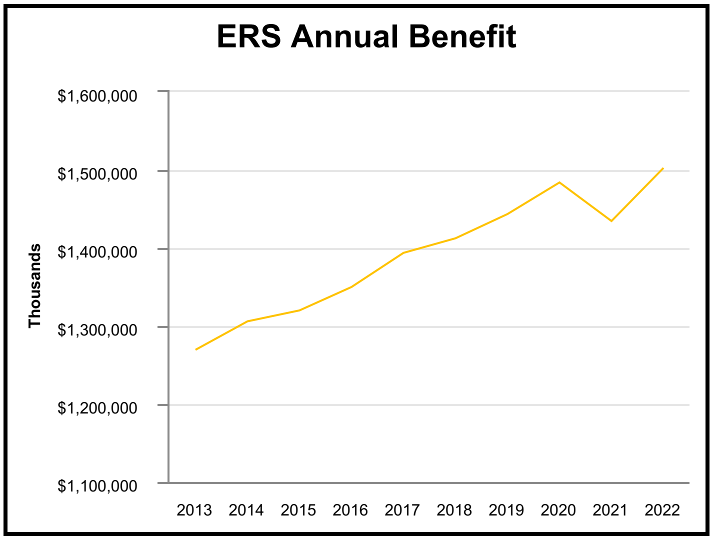


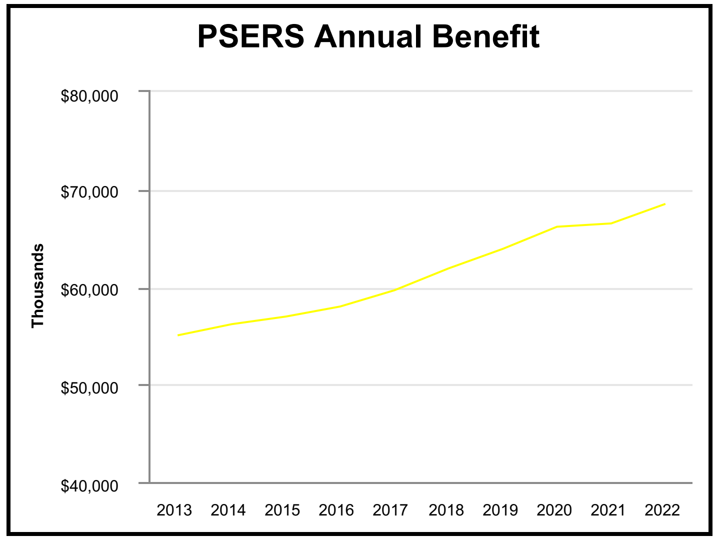


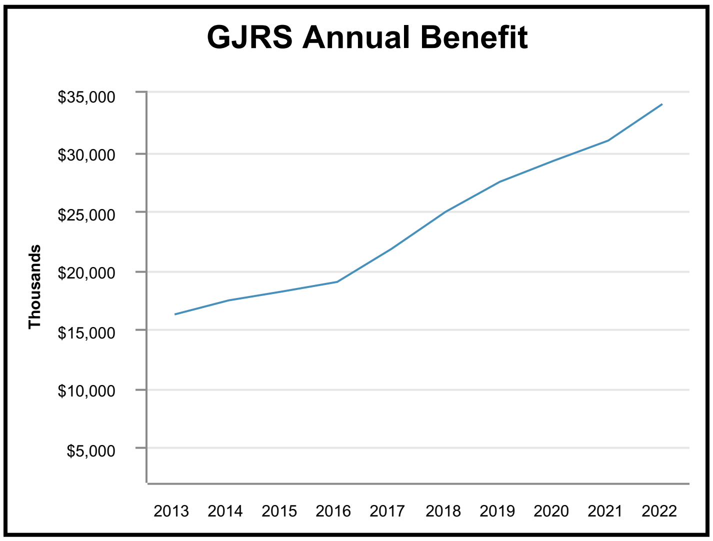


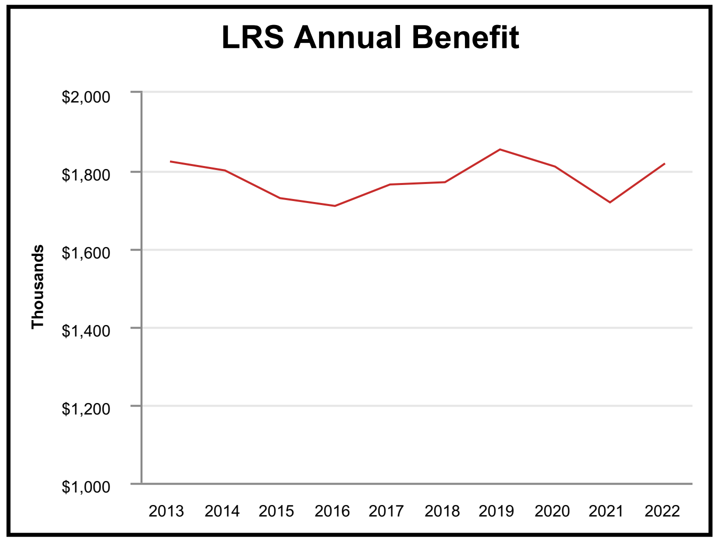
Statistical Section

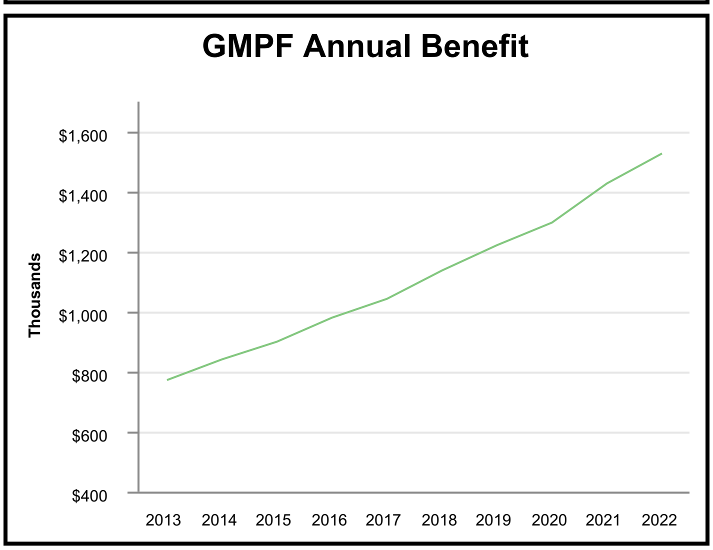
Annual Benefit





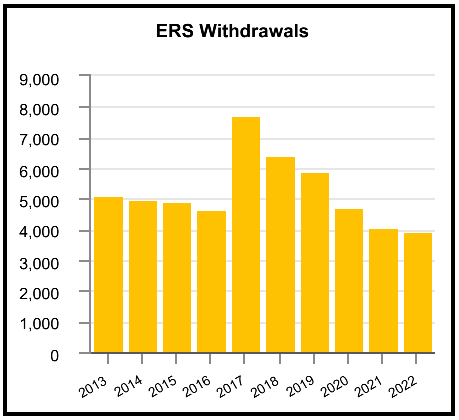


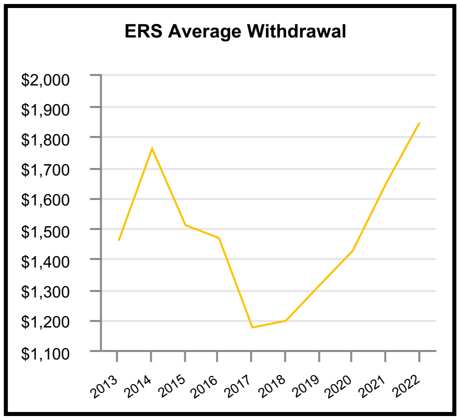


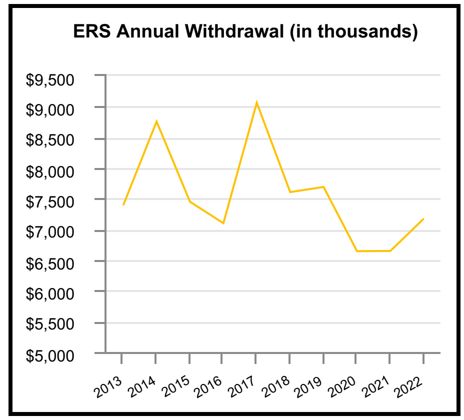


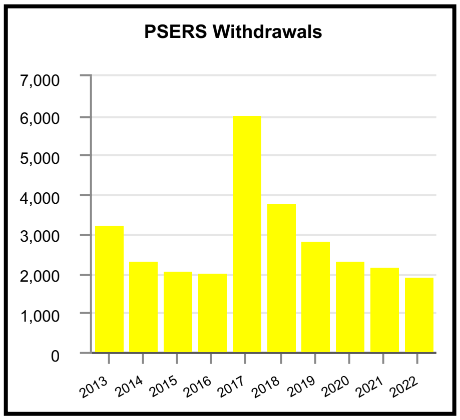
Statistical Section

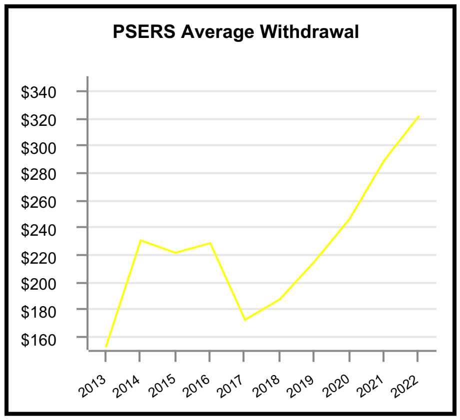
Withdrawal Statistics

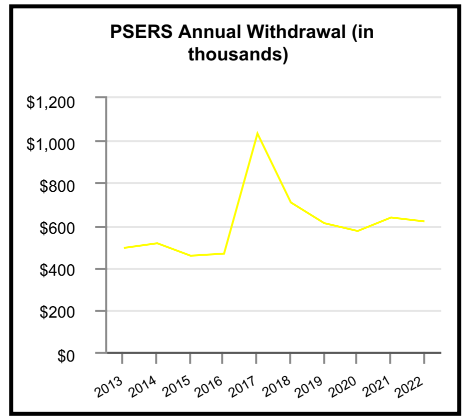


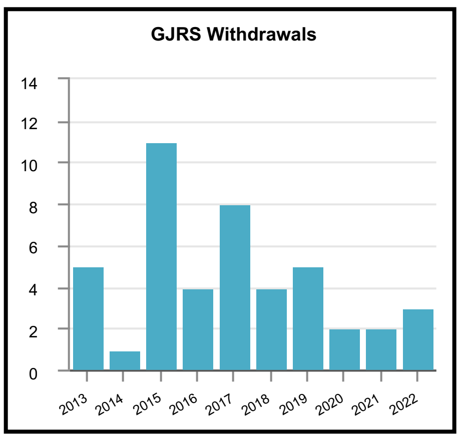


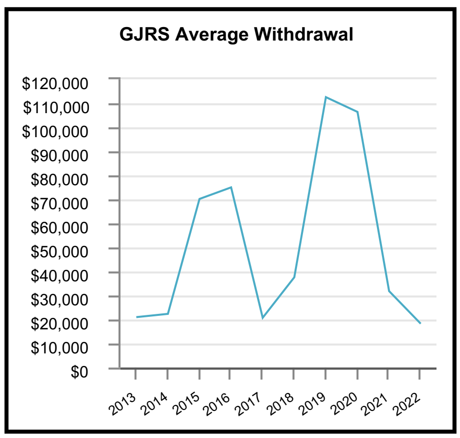


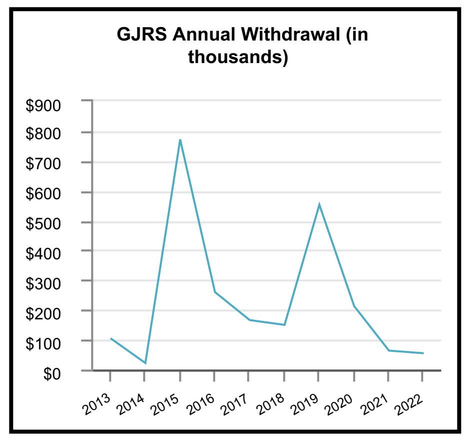


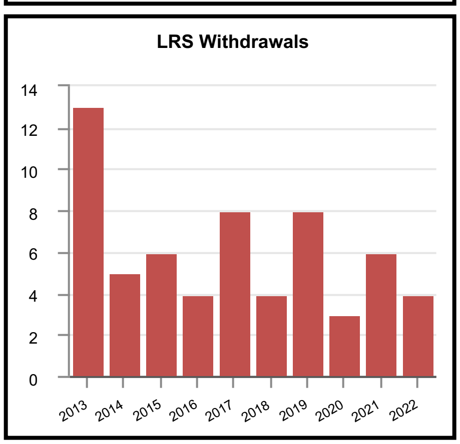


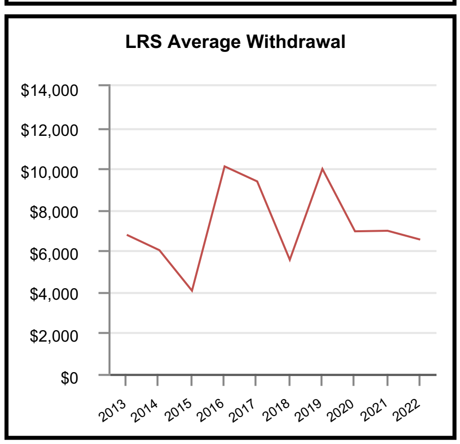


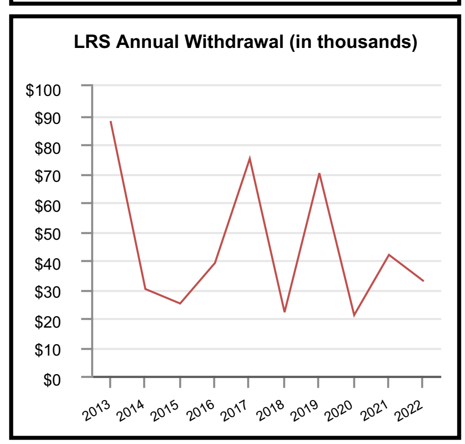












Note: The GMPF Plan does not have a refund feature.

Average Monthly Benefit Payment for New Retirees - ERS

	Years of Credited Service					
	10-15	16-20	21-25	26-30	Over 30	Total
2013						
Average Monthly Benefit	$ 836.73	$ 1,183.19	$ 1,650.14	$ 2,120.33	$ 3,487.96	$ 2,088.46
Average Final Average Salary	$ 3,391.36	$ 3,339.84	$ 3,411.24	$ 3,765.16	$ 4,659.17	$ 3,855.98
Number of Retirees	684	453	466	780	1,033	3,416
2014						
Average Monthly Benefit	$ 769.91	$ 1,232.07	$ 1,527.47	$ 2,057.32	$ 3,242.25	$ 1,870.02
Average Final Average Salary	$ 3,309.44	$ 3,337.66	$ 3,263.54	$ 3,718.37	$ 4,486.34	$ 3,699.86
Number of Retirees	483	306	311	477	542	2,119
2015						
Average Monthly Benefit	$ 750.98	$ 1,224.00	$ 1,620.88	$ 2,068.82	$ 3,074.69	$ 1,837.97
Average Final Average Salary	$ 3,269.25	$ 3,443.88	$ 3,547.63	$ 3,750.99	$ 4,536.68	$ 3,760.27
Number of Retirees	524	316	341	623	561	2,365
2016						
Average Monthly Benefit	$ 759.54	$ 1,224.52	$ 1,760.28	$ 2,171.75	$ 2,996.81	$ 1,783.98
Average Final Average Salary	$ 3,189.20	$ 3,376.84	$ 3,657.08	$ 3,935.01	$ 4,618.83	$ 3,764.34
Number of Retirees	559	340	330	530	466	2,225
2017						
Average Monthly Benefit	$ 796.76	$ 1,204.27	$ 1,786.30	$ 2,109.53	$ 2,870.19	$ 1,732.36
Average Final Average Salary	$ 3,479.90	$ 3,405.67	$ 3,850.73	$ 3,813.78	$ 4,595.25	$ 3,829.66
Number of Retirees	551	395	359	453	470	2,228
2018						
Average Monthly Benefit	$ 794.94	$ 1,318.26	$ 1,679.64	$ 2,302.80	$ 2,879.55	$ 1,791.49
Average Final Average Salary	$ 3,505.83	$ 3,674.56	$ 3,707.56	$ 4,154.11	$ 4,638.01	$ 3,950.06
Number of Retirees	570	389	306	525	476	2,266
2019						
Average Monthly Benefit	$ 806.32	$ 1,332.96	$ 1,888.94	$ 2,269.75	$ 3,089.58	$ 1,852.26
Average Final Average Salary	$ 3,624.77	$ 3,867.03	$ 4,173.06	$ 4,178.96	$ 4,954.06	$ 4,153.40
Number of Retirees	624	436	335	461	545	2,401
2020						
Average Monthly Benefit	$ 790.83	$ 1,310.46	$ 1,755.20	$ 2,335.40	$ 3,234.98	$ 1,935.05
Average Final Average Salary	$ 3,609.89	$ 3,733.97	$ 3,853.51	$ 4,268.19	$ 5,132.48	$ 4,167.37
Number of Retirees	469	368	341	441	501	2,120
2021						
Average Monthly Benefit	$ 796.58	$ 1,418.00	$ 1,900.60	$ 2,530.98	$ 3,365.15	$ 2,011.77
Average Final Average Salary	$ 3,746.21	$ 3,920.47	$ 4,121.21	$ 4,605.37	$ 5,274.73	$ 4,350.21
Number of Retirees	493	405	364	462	473	2,197
2022						
Average Monthly Benefit	$ 709.09	$ 1,334.42	$ 1,965.53	$ 2,516.64	$ 3,317.22	$ 1,943.10
Average Final Average Salary	$ 3,787.91	$ 3,960.88	$ 4,361.27	$ 4,733.49	$ 5,277.17	$ 4,415.42
Number of Retirees	430	353	352	378	379	1,892

(continued)

Average Monthly Benefit Payment for New Retirees - PSERS

	Years of Credited Service					
	10-15	16-20	21-25	26-30	Over 30	Total
2013						
Average Monthly Benefit	$ 159.34	$ 232.10	$ 300.66	$ 360.75	$ 478.49	$ 245.72
Number of Retirees	580	255	175	113	133	1,256
2014						
Average Monthly Benefit	$ 154.20	$ 227.41	$ 297.58	$ 345.98	$ 437.20	$ 233.71
Number of Retirees	603	268	147	121	131	1,270
2015						
Average Monthly Benefit	$ 155.20	$ 225.02	$ 290.82	$ 360.11	$ 471.12	$ 233.25
Number of Retirees	568	254	166	105	99	1,192
2016						
Average Monthly Benefit	$ 160.28	$ 232.09	$ 298.45	$ 358.11	$ 489.48	$ 242.18
Number of Retirees	529	273	454	103	103	1,162
2017						
Average Monthly Benefit	$ 153.93	$ 226.90	$ 286.35	$ 348.16	$ 437.62	$ 228.12
Number of Retirees	515	230	126	78	104	1,053
2018						
Average Monthly Benefit	$ 156.77	$ 228.48	$ 293.26	$ 363.46	$ 480.15	$ 238.68
Number of Retirees	508	241	148	91	102	1,090
2019						
Average Monthly Benefit	$ 162.22	$ 225.88	$ 301.08	$ 366.63	$ 485.44	$ 245.95
Number of Retirees	486	266	162	109	100	1,123
2020						
Average Monthly Benefit	$ 169.11	$ 237.94	$ 306.69	$ 376.31	$ 479.54	$ 257.59
Number of Retirees	424	230	119	73	124	970
2021						
Average Monthly Benefit	$ 168.36	$ 232.23	$ 299.31	$ 382.30	$ 486.34	$ 262.55
Number of Retirees	454	270	185	94	147	1,150
2022						
Average Monthly Benefit	$ 169.70	$ 241.02	$ 308.05	$ 372.07	$ 503.79	$ 258.35
Number of Retirees	500	298	177	101	119	1,195

Note: PSERS is not a final average pay plan.

(continued)

Average Monthly Benefit Payment for New Retirees - GJRS

	Years of Credited Service					
	10-15	16-20	21-25	26-30	Over 30	Total
2013						
Average Monthly Benefit	$ 5,179.20	$ 5,844.29	$ 6,170.52	$ 7,954.14	$ 6,169.77	$ 6,132.24
Average Final Average Salary	$ 9,271.48	$ 8,344.35	$ 8,370.72	$ 10,624.52	$ 8,864.27	$ 9,010.27
Number of Retirees	8	7	7	5	7	34
2014						
Average Monthly Benefit	$ 2,989.92	$ 4,468.12	$ 6,496.50	$ —	$ 2,703.82	$ 4,470.15
Average Final Average Salary	$ 6,265.39	$ 7,772.95	$ 8,998.48	$ —	$ 4,289.57	$ 7,166.46
Number of Retirees	6	2	7	—	3	18
2015						
Average Monthly Benefit	$ 4,010.30	$ 6,317.44	$ 7,051.15	$ 7,589.28	$ 2,406.28	$ 6,267.69
Average Final Average Salary	$ 6,937.39	$ 9,141.51	$ 9,751.01	$ 10,165.12	$ 3,222.98	$ 8,905.45
Number of Retirees	2	5	7	2	1	17
2016						
Average Monthly Benefit	$ 0.00	$ 6,534.36	$ 8,121.58	$ —	$ 8,635.31	$ 7,120.51
Average Final Average Salary	$ 0.00	$ 9,655.37	$ 11,204.04	$ —	$ 11,566.18	$ 10,211.83
Number of Retirees	0	6	2	—	1	9
2017						
Average Monthly Benefit	$4,519.89	$ 6,690.09	$ 8,737.31	$ 5,895.46	$ 8,026.56	$ 6,964.60
Average Final Average Salary	$9,049.84	$ 9,833.21	$ 12,013.62	$ 7,896.41	$ 10,750.81	$ 10,232.13
Number of Retirees	10	18	13	4	10	55
2018						
Average Monthly Benefit	$ 6,056.07	$ 7,565.45	$ 7,700.44	$ 7,979.26	$ —	$ 7,403.36
Average Final Average Salary	$ 11,385.55	$ 11,096.74	$ 10,618.33	$ 10,687.46	$ —	$ 10,902.57
Number of Retirees	3	5	7	2	0	17
2019						
Average Monthly Benefit	$ 4,646.94	$ 6,293.69	$ 8,486.61	$ 7,795.06	$8,348.20	$ 6,878.64
Average Final Average Salary	$ 8,909.34	$ 9,278.67	$ 11,566.18	$ 11,014.40	$11,181.62	$ 10,204.03
Number of Retirees	9	10	7	8	5	39
2020						
Average Monthly Benefit	$ 4,438.61	$ 5,557.00	$ 7,647.49	$ 8,800.28	$ 9,205.45	$ 6,727.54
Average Final Average Salary	$ 9,230.72	$ 10,079.17	$ 11,629.28	$ 11,787.15	$ 12,329.82	$ 10,805.40
Number of Retirees	4	6	5	2	3	20
2021						
Average Monthly Benefit	$ 4,694.76	$ 7,567.54	$ 8,213.18	$ 7,598.85	$ 8,109.37	$ 7,518.43
Average Final Average Salary	$ 8,627.67	$ 11,611.51	$ 11,133.07	$ 10,177.95	$ 10,861.73	$ 10,737.85
Number of Retirees	5	10	12	7	8	42
2022						
Average Monthly Benefit	$ 5,644.09	$ 7,158.87	$ 8,329.52	$ 8,800.28	$ 7,179.60	$ 7,233.65
Average Final Average Salary	$ 11,625.29	$ 10,448.48	$ 11,522.28	$ 11,787.15	$ 9,616.41	$ 10,930.39
Number of Retirees	5	6	5	2	4	22

(continued)

Average Monthly Benefit Payment for New Retirees - LRS

	Years of Credited Service					
	8-14	15-19	20-24	25-29	Over 29	Total
2013						
Average Monthly Benefit	$ 308.15	$ 568.93	$ 670.94	$ —	$1,166.93	$ 497.03
Number of Retirees	14	4	2	—	3	23
2014						
Average Monthly Benefit	$ 289.25	$ 480.21	$ —	$ —	$ —	$ 336.99
Number of Retirees	3	1	—	—	—	4
2015						
Average Monthly Benefit	$ 341.03	$ 382.95	$ 642.84	$ —	$1,228.50	$ 588.51
Number of Retirees	5	1	3	—	2	11
2016						
Average Monthly Benefit	$ 322.51	$ 524.09	$ —	$ —	$ —	$ 380.11
Number of Retirees	5	2	—	—	—	7
2017						
Average Monthly Benefit	$ 362.52	$ 557.02	$ 740.79	$ —	$ —	$ 484.34
Number of Retirees	6	3	2	—	—	11
2018						
Average Monthly Benefit	$ 323.56	$ 476.35	$ 719.16	$ —	$ —	$ 418.44
Number of Retirees	5	3	1	—	—	9
2019						
Average Monthly Benefit	$ 358.24	$ 493.00	$ 658.44	$ 793.55	$ —	$ 503.28
Number of Retirees	6	2	2	2	—	12
2020						
Average Monthly Benefit	$ 374.69	$ 494.79	$ —	$ 640.36	$ —	$ 444.25
Number of Retirees	5	3	—	1	—	9
2021						
Average Monthly Benefit	$ 303.85	$ 568.87	$ 733.00	$ 922.17	$1,080.00	$ 539.53
Number of Retirees	10	3	3	3	1	20
2022						
Average Monthly Benefit	$ 312.07	$ 648.00	$ —	$ —	$ —	$ 345.67
Number of Retirees	9	1	—	—	—	10

Note: LRS is not a final average pay plan.

(continued)

Average Monthly Benefit Payment for New Retirees - GMPF

	Years of Credited Service			
	20-25	26-30	Over 30	Total
2013				
Average Monthly Benefit	$ 59.44	$ 89.55	$ 100.00	$ 88.29
Number of Retirees	18	22	42	82
2014				
Average Monthly Benefit	$ 61.11	$ 90.53	$ 100.00	$ 91.02
Number of Retirees	9	19	31	59
2015				
Average Monthly Benefit	$ 62.07	$ 94.10	$ 100.00	$ 86.99
Number of Retirees	15	16	20	51
2016				
Average Monthly Benefit	$ 66.30	$ 89.29	$ 100.00	$ 85.07
Number of Retirees	27	14	30	71
2017				
Average Monthly Benefit	$ 65.00	$ 89.05	$ 100.00	$ 91.09
Number of Retirees	11	21	37	69
2018				
Average Monthly Benefit	$ 61.00	$ 87.39	$ 100.00	$ 91.17
Number of Retirees	10	23	44	77
2019				
Average Monthly Benefit	$ 67.14	$ 91.11	$ 100.00	$ 87.38
Number of Retirees	21	36	23	80
2020				
Average Monthly Benefit	$ 61.25	$ 89.29	$ 100.00	$ 86.49
Number of Retirees	20	21	33	74
2021				
Average Monthly Benefit	$ 59.57	$ 90.91	$ 100.00	$ 85.09
Number of Retirees	35	33	47	115
2022				
Average Monthly Benefit	$ 61.05	$ 89.17	$ 100.00	$ 78.98
Number of Retirees	57	24	37	118

Note: GMPF is not a final average pay plan.

Retired Members by Retirement Type

ERS
June 30, 2022

Amount of Monthly Benefit	Retirement Type			
	Service	Disability	Survivor	SGLI
$ 1 - 500	4,126	275	514	4
501 - 1,000	9,051	1,039	435	—
1,001 - 1,500	7,630	1,145	278	—
1,501 - 2,000	5,767	974	193	—
2,001 - 2,500	4,569	779	132	—
2,501 - 3,000	3,479	578	85	—
3,001 - 3,500	2,685	446	62	—
3,501 - 4,000	2,207	352	41	—
4,001 - 4,500	1,689	241	25	—
4,501 - 5,000	1,441	182	15	—
5,001 - 5,500	1,151	123	7	—
5,501 - 6,000	754	79	7	—
over 6,000	1,824	131	15	—
Totals	46,373	6,344	1,809	4

PSERS
June 30, 2022

Amount of Monthly Benefit	Retirement Type		
	Service	Disability	Survivor
$ 1 - 100	116	4	236
101 - 200	5,732	31	222
201 - 300	5,878	203	59
301 - 400	3,030	362	9
401 - 500	1,834	264	7
over 500	1,637	227	1
Totals	18,227	1,091	534

(continued)

Retired Members by Retirement Type

GJRS
June 30, 2022

Amount of Monthly Benefit	Retirement Type		
	Service	Disability	Survivor
$ 1 - 1,000	24	—	2
1,001 - 2,000	22	—	7
2,001 - 3,000	28	1	4
3,001 - 4,000	36	—	3
4,001 - 5,000	31	1	5
5,001 - 6,000	24	—	—
6,001 - 7,000	43	—	—
7,001 - 8,000	81	—	—
over 8,000	155	—	—
Totals	444	2	21

LRS
June 30, 2022

Amount of Monthly Benefit	Retirement Type		
	Service	Disability	Survivor
$ 1 - 250	22	—	—
251 - 500	137	—	10
501 - 750	66	—	2
751 - 1,000	23	—	3
over 1,000	17	—	1
Totals	265	—	16

GMPF
June 30, 2022

Amount of Monthly Benefit	Retirement Type
	Service
$ 1 - 49	—
50 - 100	1,472
over 100	—
Totals	1,472

Retired Members by Optional Form of Benefit

ERS

June 30, 2022

Amount of Monthly Benefit	Form of Benefit						
	Maximum Plan	Option 1	Option 2	Option 3	Option 4	Option 5A	Option 5B
$ 1 - 500	1,322	408	1,282	494	1,169	176	64
501 - 1,000	4,287	1,215	2,079	713	1,559	456	216
1,001 - 1,500	3,603	1,101	1,611	663	1,279	533	263
1,501 - 2,000	2,847	968	1,074	591	762	377	315
2,001 - 2,500	2,190	729	767	522	596	374	302
2,501 - 3,000	1,647	536	546	370	583	235	225
3,001 - 3,500	1,151	393	374	306	585	200	184
3,501 - 4,000	908	271	295	199	631	142	154
4,001 - 4,500	629	188	187	175	576	70	130
4,501 - 5,000	503	111	141	167	569	64	83
5,001 - 5,500	321	108	97	106	552	47	50
5,501 - 6,000	214	44	68	97	339	33	45
over 6,000	445	115	177	224	873	51	85
Subtotal - not including SGLI	20,067	6,187	8,698	4,627	10,073	2,758	2,116
	Form of Benefit - SGLI						
SGLI* Monthly Benefit Amount	**Maximum Plan**	**Option 1**	**Option 2**	**Option 3**	**Option 4**	**Option 5A**	**Option 5B**
$ 1 - 500	1	—	2	—	—	1	—
Subtotal - SGLI only	1	—	2	—	—	1	—
Total	20,068	6,187	8,700	4,627	10,073	2,759	2,116
*2% escalation***	*99*	—	*54*	*17*	*29*	*17*	*8*

Maximum Plan Single life annuity

Option 1 Reduced single life annuity with a guarantee of the remainder of the annuity savings fund account (contributions and interest), if any, to be paid upon the retiree's death

Option 2 100% joint and survivor annuity with a popup option upon divorce

Option 3 50% joint and survivor annuity with a popup option upon divorce

Option 4 Various options, including a specified monthly amount payable to a beneficiary upon the retiree's death, several period certain annuities of varying length, and a five-year accelerated benefit

Option 5A 100% joint and survivor annuity with a popup option upon divorce or the death of the beneficiary before the retiree

Option 5B 50% joint and survivor annuity with a popup option upon divorce or the death of the beneficiary before the retiree

**Supplemental Guaranteed Lifetime Income (SGLI) is an in-plan annuity purchase available to ERS retirees. Introduced in FY21, the purchase is made with Peach State Reserves funds and is a separate benefit, in addition to the retiree's service/disability benefit, but has the same optional forms and escalation option available.*

***The option to add an escalating component to the form of benefit selected was added in FY21. When escalation is selected, the monthly benefit amount increases 2% each year.*

(continued)

Retired Members by Optional Form of Benefit

PSERS
June 30, 2022

Amount of Monthly Benefit	Form of Benefit					
	Maximum Plan	Option AA	Option AB	Option AC	Option AD	Option B
$ 1 - 100	—	36	273	5	26	16
101 - 200	3,598	1,331	439	10	199	408
201 - 300	4,734	736	251	6	118	295
301 - 400	2,706	415	81	5	55	139
401 - 500	1,761	188	68	9	19	60
over 500	1,680	100	36	2	4	43
Totals	14,479	2,806	1,148	37	421	961

Maximum Plan Single life annuity

Option AA 100% joint and survivor annuity

Option AB 50% joint and survivor annuity

Option AC Joint and survivor annuity with a specified monthly amount payable to a beneficiary

Option AD Joint and survivor annuity with the amount payable to a beneficiary limited by the age difference between the retiree and the beneficiary

Option B Annuity for a guaranteed period of time (5, 10, 15, or 20 years). If retiree outlives guarantee period, there is no benefit due after retiree’s death

(continued)

Retired Members by Optional Form of Benefit

GJRS
June 30, 2022

Amount of Monthly Benefit	Form of Benefit							
	Maximum Plan	Spousal Coverage	Option 1	Option 2	Option 3	Option 4A	Option 4B	Option 4C
$ 1 - 1,000	1	25	—	—	—	—	—	—
1,001 - 2,000	3	26	—	—	—	—	—	—
2,001 - 3,000	7	26	—	—	—	—	—	—
3,001 - 4,000	3	36	—	—	—	—	—	—
4,001 - 5,000	6	31	—	—	—	—	—	—
5,001 - 6,000	8	15	1	—	—	—	—	—
6,001 - 7,000	9	34	—	—	—	—	—	—
7,000 - 8,000	23	58	—	—	—	—	—	—
over 8,000	29	126	—	—	—	—	—	—
Totals	89	377	1	—	—	—	—	—

Maximum Plan	Single life annuity
Spousal Coverage*	Indicates the member paid additional contributions to provide a 50% joint and survivor annuity at retirement
Option 1**	100% joint and survivor annuity
Option 2**	66 ⅔% joint and survivor annuity
Option 3**	50% joint and survivor annuity
Option 4A**	100% joint and survivor annuity with a popup option upon death of beneficiary before the retiree
Option 4B**	66 ⅔% joint and survivor annuity with a popup option upon death of beneficiary before the retiree
Option 4C**	50% joint and survivor annuity with a popup option upon death of beneficiary before the retiree

*Only available if membership start date prior to July 1, 2012
**Only available if membership start date on or after July 1, 2012

(continued)

Retired Members by Optional Form of Benefit

LRS
June 30, 2022

Amount of Monthly Benefit	Form of Benefit		
	Maximum Plan	Option B1	Option B2
$ 1 - 250	—	18	4
251 - 500	54	81	12
501 - 750	40	18	10
751 - 1,000	5	18	3
over 1,000	9	7	2
Totals	108	142	31

Maximum Plan Single life annuity

Option B1 100% joint and survivor annuity

Option B2 50% joint and survivor annuity

GMPF and SEAD - OPEB
June 30, 2022

The GMPF Plan provides a benefit only in one form, a life annuity. All 1,472 current retirees, therefore, have this same form of benefit. The SEAD-OPEB plan provides only a lump sum death benefit to a member's beneficiary(ies).

Principal Participating Employers FY13

	Member Count	% of Total Plan
ERS		
Department of Corrections	11,770	19.0 %
Department of Behavioral Health and Developmental Disabilities	5,101	8.3
Department of Transportation	4,283	7.0
Department of Juvenile Justice	3,472	5.6
Department of Labor	3,362	5.5
Department of Human Resources	1,732	2.8
Department of Natural Resources	1,724	2.8
Department of Public Safety	1,636	2.7
Department of Revenue	1,024	1.7
Department of Public Health	930	1.5
Total Top Employers	35,034	56.9
Total ERS Member Count	61,554	
PSERS		
Gwinnett County Schools	3,839	10.1
Cobb County Schools	2,547	6.7
Dekalb County Schools	2,197	5.8
Clayton County Schools	1,106	2.9
Muscogee County Schools	937	2.5
Cherokee County Schools	879	2.3
Richmond County Schools	849	2.2
Forsyth County Schools	834	2.2
Henry County Schools	750	2.0
Houston County Schools	682	1.8
Total Top Employers	14,620	38.5
Total PSERS Member Count	37,919	
GJRS		
Council of Superior Courts	207	40.9
Council of State Courts	115	22.7
Prosecuting Attorney's Council	104	20.6
Council of Juvenile Courts	71	14.0
Total Top Employers	497	98.2
Total GJRS Member Count	506	
SEAD - OPEB		
Department of Corrections	7,624	17.6%
Department of Transportation	3,774	8.8%
Department of Behavioral Health and Developmental Disabilities	2,911	6.7%
Department of Human Resources	2,441	5.7%
Department of Juvenile Justice	2,047	4.7%
Department of Natural Resources	1,462	3.4%
Department of Labor	1,334	3.1%
Department of Public Safety	1,275	3.0%
Department of Revenue	673	1.6%
Department of Public Health	594	1.4%
Total Top Employers	24,135	56.0%
Total ERS Member Count	43,127	

Principal Participating Employers FY22

	Member Count	% of Total Plan
ERS		
Department of Corrections	6,118	11.7 %
Department of Transportation	3,589	6.8
Department of Behavioral Health and Developmental Disabilities	2,995	5.7
Department of Juvenile Justice	2,366	4.5
Department of Human Services	2,302	4.4
Department of Public Safety	1,732	3.3
Department of Community Supervision	1,698	3.2
Department of Natural Resources	1,685	3.2
Department of Labor	1,058	2.0
Department of Public Health	1,045	2.0
Total Top Employers	24,588	46.8
Total ERS Member Count	52,526	
PSERS		
Gwinnett County Schools	3,352	10.5
Cobb County Schools	1,934	6.1
Dekalb County Schools	1,885	5.9
Clayton County Schools	1,026	3.2
Forsyth County Schools	955	3.0
Houston County Schools	834	2.6
Chatham County Schools	820	2.6
Richmond County Schools	686	2.2
Cherokee County Schools	657	2.1
Muscogee County Schools	613	1.9
Total Top Employers	12,762	40.1
Total PSERS Member Count	31,833	
GJRS		
Council of Superior Courts	215	41.1
Council of State Court Judges	117	22.3
Council of Juvenile Courts	74	14.1
Solicitor General	56	10.7
Total Top Employers	462	88.2
Total GJRS Member Count	524	
SEAD - OPEB		
Department of Corrections	2,114	12.5
Department of Transportation	1,547	9.1
Department of Human Services	808	4.8
Department of Behavioral Health and Developmental Disabilities	777	4.6
Department of Juvenile Justice	674	4.0
Department of Natural Resources	659	3.9
Department of Community Supervision	623	3.7
Department of Public Safety	532	3.1
Department of Labor	446	2.6
Superior Courts of Georgia	317	1.9
Total Top Employers	8,497	50.2
Total Active Member Count	16,926	

Schedule of Revenue and Expenses - State Employees' Assurance Department Active Members Fund

Year ended June 30, 2022
(In thousands)

	2022	2021	2020	2019	2018	2017
Operating revenue:						
Insurance premiums	$ 479	$ 521	$ 547	$ 531	$ 540	$ 599
Total operating revenue	479	521	547	531	540	599
Operating expenses:						
Death benefits	3,333	4,870	3,588	3,424	2,972	4,019
Administrative expenses	84	77	80	80	76	64
Total operating expenses	3,417	4,947	3,668	3,504	3,048	4,083
Total operating loss	(2,938)	(4,426)	(3,121)	(2,973)	(2,508)	(3,484)
Nonoperating revenues (expenses):						
Allocation of investment income (loss) from pooled investment fund	(47,867)	93,479	16,651	19,708	24,493	29,847
Investment expenses	(66)	(70)	(67)	(65)	(64)	(62)
Total nonoperating revenues	(47,933)	93,409	16,584	19,643	24,429	29,785
Change in net position	(50,871)	88,983	13,463	16,670	21,921	26,301
Total net position:						
Beginning of year	408,323	319,340	305,877	289,207	267,286	240,985
End of year	$ 357,452	408,323	319,340	305,877	289,207	267,286

In fiscal year 2017, the System adopted the provisions of GASB Statement No. 74 and revised its accounting methodology with regard to the presentation of SEAD-Active, and began reporting it as a proprietary fund. In previous years it was reported as a fiduciary fund. Additional years will be displayed as they become available.

Schedule of Membership -
State Employees' Assurance Department Active Members Fund

Fiscal Year	Covered Lives
2013	43,127
2014	38,711
2015	35,142
2016	31,869
2017	28,873
2018	26,032
2019	23,368
2020	21,020
2021	18,772
2022	16,926

Statistical Section

Statistical Data at June 30, 2022

System	Net Position	Employer and Nonemployer Contributions	Employee Contributions	Active Members	Inactives	Retirees	Annual Payment	Average Monthly Benefit[1]
ERS	$13.8 billion	Old Plan: 19.88% New Plan: 24.63% GSEPS 21.57% ($619.7 million)	Old Plan: 6% (with 4.75% pickup) New Plan: 1.25% GSEPS: 1.25% ($36.1 million)	Old Plan: (0.03%) 17 New Plan: (32.00%) 16,810 GSEPS: (67.96%) 35,699 Total: 52,526	70,637	Total: 54,530 Service: 42,094 Beneficiary: 6,472 Disability: 5,421 Inv. Sep.: 392 Law. Enf.: 147 SGLI: 4	$1.5 billion	$2,179
PSERS	$1.0 billion	$32.5 million	$36 yr prior July 1, 2012 $90 yr after July 1, 2012 ($2.3 million)	31,833	53,727	19,852	$68.5 million	$290
GJRS	$516.6 million	8.81% ($10.0 million)	7.5% +2.5% Spousal, if applicable ($5.5 million)	524	82	467	$34.1 million	$6,042
LRS	$36.0 million	0% (None)	8.5% (with 4.75% pickup) ($344 thousand)	217	164	281	$1.8 million	$512
GDCP	$137.4 million	None	7.5% ($16.2 million)	11,825	125,326	2	$10 thousand	$4,928
SCJRF	$6 thousand	$275 thousand	None	None	None	4	$275 thousand	$5,332
DARF	$2 thousand	$23 thousand	None	None	None	2	$23 thousand	$947
SEAD	$1.3 billion	None	New Plan: 0.23% Old Plan: 0.45% ($2.6 million)	No. Insured: 16,926	1,059	No. Insured: 44,371	No. of Claims: 1,534 Amt. Pd: $58.1 million	Average Claim: $37,879
GMPF	$34.9 million	$2.7 million	None	13,834	3,635	1,472	$1.5 million	$89

[1] GDCP average benefit payment is an annual amount.