ERSRI

Employees' Retirement System of Rhode Island

Employees' Retirement System of the State of Rhode Island

Pension Trust Funds of the State of Rhode Island

Annual Comprehensive Financial Report

FOR THE FISCAL YEAR ENDED JUNE 30, 2022

2022 Annual Comprehensive Financial Report

For the Fiscal Year Ended June 30, 2022

Employees' Retirement System of Rhode Island

Employees' Retirement System (ERS)

Teachers' Survivors Benefits (TSB)

Municipal Employees' Retirement System (MERS)

State Police Retirement Benefits Trust (SPRBT)

Judicial Retirement Benefits Trust (JRBT)

RI Judicial Retirement Fund Trust (RIJRFT)

RI State Police Retirement Fund Trust (SPRFT)

Rhode Island Defined Contribution Plan

Prepared by the staff of the

Employees' Retirement System of Rhode Island

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

FISCAL YEAR ENDED JUNE 30, 2022

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Introductory Section

ERSRI Employees' Retirement System of Rhode Island

December 30, 2022

Dear Governor McKee, Speaker Shekarchi, Senate President Ruggerio, Secretary of State Gorbea, Members of the Retirement Board for the Employees' Retirement System of Rhode Island, and Members and Beneficiaries of the Employees' Retirement System of Rhode Island::

We are pleased to present you with this Annual Comprehensive Financial Report of the Employees' Retirement System of Rhode Island (ERSRI) for the fiscal year ending June 30, 2022. As required by Rhode Island General Law §36-8-8, this report is intended to provide the Governor, the General Assembly, members and beneficiaries of the System, and the public with current financial information and an overall status report on the operation of the System.

Management Responsibility

The management of ERSRI is responsible for the complete and fair presentation of the financial information and the accompanying disclosures in this report.

ERSRI management is responsible for ensuring that an adequate internal control structure is in place to provide reasonable, but not absolute, assurance regarding the safeguarding of assets against loss from unauthorized user disposition and the reliability of financial records for preparing financial statements in conformity with generally accepted accounting principles (GAAP). The concept of reasonable assurance recognizes that the costs of internal control should not exceed the benefits likely to be derived and that the evaluation of costs and benefits requires management to make estimates and judgments. The internal control structure is subject to periodic evaluation by management and the System's internal auditors to ensure compliance with applicable laws and regulations.

Financial Information

The basic financial statements have been prepared in accordance with GAAP. The Management's Discussion and Analysis (MD&A) provides a narrative introduction, overview, and analysis to accompany the basic financial statements This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The System's MD&A can be found immediately following the independent auditors' report.

Profile of ERSRI

The System is administered by the fifteen members of the State of Rhode Island Retirement Board which was authorized, created and established in the Office of the General Treasurer as an independent retirement board to hold and administer, in trust, the funds of the retirement System. The composition of the Board is listed in the notes to the financial statements and Rhode Island General Law §36-8-4.

Address: 50 Service Avenue 2nd Floor, Warwick, RI 02886-1021
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The System's purpose is to provide service retirement, disability retirement, and survivor benefits to state employees, public school teachers, certain general and public safety municipal employees, state police officers, and judges.

ERSRI is responsible to administer seven (7) defined benefit plans and one (1) defined contribution plan:

1. *The Employees' Retirement System (ERS)*, established in 1936, which includes the retirement assets of all state employees and public school teachers;

2. *The Teachers' Survivors Benefit Plan (TSB)*, which provides survivor benefits for teachers who do not participate in Social Security;

3. *The Municipal Employees' Retirement System (MERS)*, established in 1951, which is the municipal retirement plan covering participating municipal general and public safety employers (each unit is valued independently);

4. *The Judicial Retirement Benefits Trust (JRBT)*, which includes judges appointed after December 31, 1989;

5. *The State Police Retirement Benefits Trust (SPRBT)*, which includes state police hired after July 1, 1987;

6. *The Rhode Island Judicial Retirement Fund Trust (RIJRFT)*, established July 1, 2012, which covers active judges appointed prior January 1, 1990 and do not participate in the JRBT;

7. *The State Police Retirement Fund Trust (SPRFT)*, established June 8, 2016, for the purpose of paying retirement benefits to participating members of the state police initially hired on or before July 1, 1987, or their beneficiaries;

8. *The State of Rhode Island Defined Contribution Retirement Plan*, covers members of the defined benefit plan within the Employees' Retirement System of Rhode Island with less than 20 years of service as of June 30, 2012, excluding legislators, correctional officers and MERS public safety employees who participate in Social Security. For covered employees, participation in the defined contribution plan is mandatory. Judges and State Police officers are excluded from the Plan.

Each plan's assets are accounted for separately and may be used only for the payment of benefits to the members of that plan, in accordance with the terms of each plan.

ERSRI's financial statements are included as Pension Trust Funds within the Fiduciary Funds in the Comprehensive Annual Financial Report of the State of Rhode Island and Providence Plantations. The accompanying financial statements are not intended to present the financial position and results of operations of the State of Rhode Island.

Membership

As of June 30, 2022, active membership in the Employees' Retirement System totaled 24,357. The Municipal Employees' Retirement System totaled 7,746 and 7,328 active teachers were in the Teachers' Survivors Benefit Plan. There are currently 60 judges contributing to the Judicial Retirement Benefits Trust, 267 state police contributing to the State Police Retirement Benefits Trust, and 4 judges contributing to the Rhode Island Judicial Fund Trust. A total of 30,076 retirees and beneficiaries were receiving benefits from the System. As of June 30, 2022 there are 40,442 active and retired participants in the State of Rhode Island Defined Contribution Plan.

Financial Performance

The major additions for all ERSRI plans are employee and employer contributions. Total additions for the fiscal year ending June 30, 2022 included $978,109,000 in contributions from employers and employees.

The deductions from the funds consist primarily of payments made to members and beneficiaries for retirement, disability, death, or survivor benefits and investment losses. In total, benefit payments for the fiscal year ending June 30, 2022 were $1,070,713,000 and investment losses were $515,806,000.

Administrative expenses of the retirement system are paid from a restricted receipt account that is used solely to pay such expenses. This account is financed through investment earnings up to a maximum of 0.175% of the average total investments before lending activities as reported in the annual report of the Auditor General for the next preceding five (5) fiscal years. Any non-encumbered funds at June 30th are transferred back to the retirement fund. Administrative expenses incurred by the System for the fiscal year ended June 30, 2022 amounted to $10,403,000.

For the fiscal year ended June 30, 2022 the administrative costs of the defined contribution plan were financed through a budgetary appropriation and participant fees, and are reflected in the State's General Fund. Administrative costs that were allocated to the defined contribution plan as part of the Office of the General Treasurer's operating budget for the fiscal year ended June 30, 2022 were $378,000. Fees paid to TIAA, custodian of the defined contribution plan, via participant fees were $1,469,000 for fiscal year ended June 30, 2022.

Funding

The ERSRI plans are funded through three sources; (1) investment earnings, (2) employee contributions as prescribed in RI General Law for each trust, and (3) employer contributions. Employer contribution rates for ERSRI are determined actuarially. The rate consists of two pieces: the normal cost rate and the amortization rate. The normal cost rate is the employer's Entry Age normal cost, expressed as a percentage of active member payroll. The amortization rate is the contribution required to amortize the unfunded actuarial accrued liability over a number of years as a level percentage of payroll. The employer contribution rates recommended by the actuary must be approved by the ERSRI Retirement Board before they can become effective for each fiscal year.

The actuary determines the actuarial accrued liability of the Plans, which is a measure of the present value of accrued liabilities that is estimated to be payable in the future to current retirees, beneficiaries, and employees for service earned to date. The percentage computed by dividing the actuarial value of net assets for benefits by the actuarial accrued liability is referred to as the funded ratio. The higher the funded ratio, the greater the degree of overall financial health and stability for the pension fund. The funded status alone is not appropriate for assessing the need for future contributions. Also, the funded status is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligations.

The funding objective of the ERSRI is to attempt to develop stable contribution rates and to achieve a funded status of 100%. Per the actuarial valuation dated June 30, 2022, the funded ratio for State employees increased from 56.7% in the prior year to 58.8%, as well as an increase for teachers from 58.7% to 61.5%. During the same period, the funded ratio increased from 98.7% to 104.0% for the judges. For the state police, the funded ratio also increased from 88.0%. to 90.0%. The funded ratio for the Rhode Island Judicial Fund Trust increased from 6.4% to 7.4%. After multiple years of advanced funding, the funded ratio for the State Police Retirement Fund Trust increased from 14.2% to 14.9%. The increases in the funded ratios from the prior valuations was primarily due to actuarial gains from strong investment performance during the fiscal year. The ratios are based on the Entry Age Normal funding method effective June 30, 1999.

The Municipal Employees' Retirement System (MERS) prepares separate valuations for each participating unit. For reference purposes only, the overall funded ratio for MERS – general employees was 87.2% and MERS – public safety employees was 84.0% and all MERS employer units combined were 85.9% per the June 30, 2022 valuation. Consequently, each unit has its own funding ratio that can be found in the Municipal Employees' Retirement System Actuarial Valuation Report at www.ersri.org. The June 30, 2022 financial report includes the June 30, 2021 actuarial valuations which were the most recent information available at the time of preparation.

Net Pension Liability

The total pension liability is the actuarial present value of projected benefit payments attributed to past periods of employee service. The total pension liability is based on the Entry Age Normal funding method. The fiduciary net position is based on the fair value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations based on the Board's adopted assumptions and methods). The net pension liability is measured as the total pension liability, less the amount of the fiduciary net position.

The Net Pension Liability is an accrual accounting measurement calculated in conformity with Governmental Accounting Standard Board (GASB) Statement No. 67 for the Trust and No. 68 for the employer units. The unfunded liability is a funding measure calculated according to generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

ERSRI provides the calculation of Net Pension Liability to comply with GASB's financial reporting requirements and is not applicable for the purposes of funding each Trust or used in the development of the contribution rates for participating employers.

Investments

Assets are invested under the direction and authority of the State Investment Commission (SIC), which meets on a monthly basis. It is authorized, created and established in the office of the General Treasurer per Rhode Island General Law §35-10.

The SIC has established an asset allocation policy which may be amended by the SIC Board by a majority vote of its members. The SIC's asset allocation policy seeks to achieve the assumed rate of return adopted by the System over the long-term while reducing risk through the prudent diversification of the portfolio across various asset classes. The approved asset allocation policy is outlined in Note 5 to the Basic Financial Statements.

NEPC serves as the General Consultant for Policy and Asset Allocation to the State Investment Commission. Meketa serves as the Real Estate Consultant to the State Investment Commission. Cliffwater serves as consultant on alternative investments. Bank of New York Mellon serves as the custodian for the defined benefit plans. TIAA serves as the record keeper for the State of Rhode Island Defined Contribution Plan and J.P. Morgan is the investment custodian of the defined contribution plan.

The annualized time-weighted return (net of fees) on the portfolio for the one-year, three-year, and five-year periods ended June 30, 2022 were -1.4%, 8.7%, and 8.1%, respectively. A discussion regarding annualized returns and related benchmark indices for fiscal year 2022 is explained in the MD&A.

A more detailed exhibit of investment policies and investment performance for ERSRI are in the Investment Section of this report.

Strategic Plan Initiatives

During fiscal year 2022, ERSRI continued the implementation of strategic initiatives to improve customer service enhancements. This included engaging consultants to upgrade ERSRI's website as well as efforts to (1) expedite the processing of pension payments, (2) reduce pension processing time, (3) transition to one-on-one counseling for members at time of retirement, and (4) provide one-on-one counseling to eligible members 5 years from normal retirement age, either due to data cleansing or clean accounts.

Investments

During fiscal year 2022, the SIC continued to execute on its "Back to Basics" asset allocation strategy focused on low-cost equity investments, complemented by other assets designed to help grow the plan assets while protecting ERSRI against risks such as volatility and inflation.

Throughout fiscal year 2022, the SIC implemented and funded the portfolio's 2% strategic allocation to collateralized loan obligations (CLOs), which was established as a result of a strategic asset allocation review that concluded in fiscal year 2021.

Legislation

There were no relevant pieces of legislation pertaining to ERSRI enacted by the General Assembly during the legislative session that ended June 30, 2022.

Professional Services

Joseph P. Newton, FSA, MAAA, EA, Paul T. Wood, ASA, MAAA, FCA and Brad Stewart, ASA, MAAA, EA of GRS Retirement Consulting provide actuarial services to the ERSRI.

Michael P. Robinson, Esquire, of the law firm Savage Law Partners, LLP of Providence, Rhode Island serves as the Retirement Board's general counsel. Private attorneys are hired on a per diem basis to serve as hearing officers for the System on disputed retirement issues.

In addition to Dr. Christopher Ley, who serves as the Medical Advisor to the Board's Disability Subcommittee, the ERSRI hires independent physicians who conduct medical exams of the System's disability applicants.

The Office of the Auditor General conducts an annual financial audit for each trust within the Employees' Retirement System of Rhode Island.

A separate schedule of professional consultants is included in the Introductory Sections of this report.

Reports to Members

Real-time active member information regarding contributions and creditable service, as well as retiree member information, is found on the System's website at www.ersri.org. Active and retired members also receive newsletters and other notices on an ad hoc basis.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to ERSRI for its Comprehensive Annual 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 Comprehensive Annual Financial Report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. ERSRI believes that our Comprehensive Annual Financial Report for the fiscal year ended June 30, 2022 continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

ERSRI also received the 2022 Public Pension Standards Award from the Public Pension Coordinating Council (PPCC). The PPCC presents this award to public employee retirement systems in recognition of their achievement of high professional standards in the areas of comprehensive benefits administration, actuarial valuations, financial reporting, investments, and membership communications.

The PPCC is a coalition of three national associations that represent public retirement systems and administrators: National Association of State Retirement Administrators (NASRA), the National Council on Teacher Retirement (NCTR) and the National Conference on Public Employee Retirement Systems (NCPERS).

The PPCC established the Public Pension Standards to reflect minimum expectations for public retirement system management, administration, and funding. The Standards serve as a benchmark by which to measure public defined benefit plans.

Acknowledgments

The preparation of this report is possible only through the combined efforts of the ERSRI staff. Additionally, we would like to thank the Retirement Board, the actuarial team at GRS Retirement Consulting, the Office of the Auditor General, and the Office of the State Controller. Finally, this report is intended to provide extensive and reliable information as a basis for making management decisions, determining compliance with legal provisions, and determining responsible stewardship for the assets contributed by the System's members and their employers.

We welcome your comments on the issuance of this report.

Respectfully submitted,

Frank J. Karpinski
Executive Director

Stacey F. Whitton
Chief Financial Officer

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ERSRI
Employees' Retirement System of Rhode Island

Seth Magaziner
General Treasurer, Chair

Frank J. Karpinski
Executive Director

December 30, 2022

To the Members and Beneficiaries of the Employees' Retirement System of Rhode Island:

On behalf of the Board of the Employees' Retirement System of Rhode Island (ERSRI), I am pleased to present the Fiscal Year 2022 Annual Comprehensive Financial Report. This report describes the financial condition of the System, changes that occurred during the fiscal year, and covers important information related to the management of the System, including investment performance.

The funded ratios of the plans within ERSRI continued to improve in the 2022 Fiscal Year. The funding level of the state employees plan improved from 56.7% to 58.8%, the teachers plan improved from 58.7% to 61.5% and the number of Municipal Employees Retirement System (MERS) units with a funding level of at least 80% increased from 81 to 92. The combined unfunded liability of the state, teachers and MERS plans decreased during the year by more than $300 million.

ERSRI's investments experienced a 1.4% decline in net performance in the fiscal year ending on June 30, 2022. Over a five-year period, annualized net performance for the fund was 8.1% and 7.9% over the ten-year period, outperforming the System's benchmarks for the respective time periods.

Rhode Island also continues to outperform its peer group. ERSRI's FY 2022 investment performance ranked in the third percentile among peers for the trailing five-year period, and first percentile over the trailing three-year period.

The investment strategy along with the set of current policies should provide for a predictable funding pattern to advance our goal to reach 80% funded by 2031.

The most important takeaway from these changes is to stay the course and let the process continue to work as it has proven to date.

In November 2022, for the fifth consecutive year, the Government Finance Officers Association (GFOA) awarded ERSRI its highest form of recognition in governmental accounting and financial reporting for our fiscal year 2021 Annual Comprehensive Financial Report.

The dedication of ERSRI's staff and board is the reason that Rhode Island's retirement system is stronger than it has been in many years. Together, we are working to ensure retirement security for Rhode Island teachers, State and municipal employees, public safety officers and other public servants.

Sincerely,

Seth Magaziner
General Treasurer

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Employees Retirement System of Rhode Island

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2021

Christopher P. Morrill

Executive Director/CEO

Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2022

Presented to

Employees' Retirement System of Rhode Island

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

Presented by the Public Pension Coordinating Council, a confederation of

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

Alan H. Winkle
Program Administrator

Retirement Board Members

The 15-member State Retirement Board oversees the Employees' Retirement System of Rhode Island.

The State Retirement Board, as of June 30, 2022, included:

General Treasurer Seth Magaziner, *Chair, Ex Officio Member*

John P. Maguire, *Vice Chairperson*, *Active Teacher Representative*

Roger P. Boudreau, *Retired Member Representative*

Mark A. Carruolo, *Public Representative (appointed by the Governor)*

Joseph Codega, *Associate Director/State Budget Officer (appointed by Director of Administration)*

Paul L. Dion, Ph.D., *Active State Employee Representative*

Matthew K. Howard, *Active Municipal Employee Representative*

Claire M. Newell, *Active State Employee Representative*

Raymond J. Pouliot, *Retired Member Representative*

Jean Rondeau, *Public Representative (appointed by the Governor)*

Dr. Laura Shawhughes, *Public Representative (appointed by the General Treasurer)*

James E. Thorsen, *Director of Administration*

Michael J. Twohey, *Teacher Representative*

Lisa A. Whiting, *Public Representative (appointed by the General Treasurer)*

The State Investment Commission is responsible for the investment of the assets of the Employees' Retirement System, the Municipal Employees' Retirement System, the State Police Retirement Benefits Trust, the Judicial Retirement Benefits Trust, the Rhode Island Judicial Retirement Fund Trust, the State Police Retirement Fund Trust, and the State of Rhode Island Defined Contribution Retirement Plan.

The State Investment Commission, as of June 30, 2022, included:

General Treasurer Seth Magaziner, *Chair*

Susan Chung, *General Treasurer's Appointee*

J. Michael Costello, *Governor's Appointee*

Thomas P. Fay, *Governor's Appointee*

Karen Hammond, *Governor's Appointee*

Frank J. Karpinski, *Executive Director, Non-voting Member*

Sylvia Maxfield, *General Treasurer's Appointee*

James Thorsen, *Director of Department of Administration*

Karen Hazard, *General Treasurer's Appointee*

Al Cumplido, *General Treasurer's Appointee*

Administration and Advisors to State Investment Commission as of June 30, 2022:

Andrew Junkin, *Chief Investment Officer*[1]

Matthew E. Waters, *Legal Counsel, State Investment Commission*

NEPC, *General Consultant, Policy and Asset Allocation Consultant to the State Investment Commission*

Meketa, Senior Advisor *& Real Estate Consultant to the State Investment Commission*

Cliffwater, *Alternative Investments (Hedge Funds/Private Equities) Consultant to the State Investment Commission*

Bank of New York Mellon, *Custodian Bank*

[1] In July 2022, Andrew Junkin departed, and Eric Baggesen joined as CIO.

Employees' Retirement System of Rhode Island
Professional Advisors, Investment Consultants, Managers & Service Providers
Fiscal Year Ended June 30, 2022

Actuarial Consultant
Gabriel Roeder Smith & Co.

Legal
Adler Pollock & Sheehan P.C.
Hinckley, Allen, & Snyder LLP
Savage Law Partners

Independent Auditors
R.I. Office of the Auditor General

Medical Advisor
Dr. Christopher Ley, MD

Information Technology Consultant
Lifeworks (US)

Investment Advisor
Aberdeen Asset Management
Cliffwater LLC
Meketa Investment Group
NECP LLC

Investment Custodian
BNY Mellon - Defined Benefit Plan
TIAA - Defined Contribution Plan

Investment - Total Growth
Global Equities
State Street Global Advisors

Private Growth
Non-Core Real Estate
Crow Holdings Retail Fund
Exeter Industrial Value Fund III
Exeter Industrial Value Fund V
GEM Realty Fund V
GEM Realty Fund VI
IC Berkeley Partners IV
IC Berkeley Partners V
IPI Partners II-A LP
Linchris Capital Opportunity Fund II
Lone Star Real Estate Fund IV
Raith Real Estate II
TriCon Capital Fund VII
Waterton Fund XII

Opportunistic Private Credit
Centerbridge Capital Partners
Centerbridge Special Credit Partners II, L.P.
Clearlake Flagship Plus Partners, L.P.
Clearlake Opportunities Partners II, L.P.
Davidson Kempner LDO Fund IV LP
Davidson Kempner LDO Fund V LP
MHR Institutional Partners III LP
Oaktree European Principal Fund III
WLR Recovery Fund IV

Private Equity
Advent International GPE VII-C, L.P.
Advent International GPE VIII
Advent International GPE IX
Alta Partners VIII
Altaris Constellation Partners IV
Altaris Health Partners IV
Bain Capital Fund X, L.P.
Baring Asia Private Equity Fund VI, LP
Baring Asia Private Equity Fund VII, LP
Birch Hill Equity Partners III
Braemar Energy Ventures III
Carlyle Asia Partners IV, LP
Carlyle Asia Partners V
Centerbridge Capital Partners III, L.P.
Charlesbank Capital X
Charlesbank Capital X Overage
Coller International Partners V, L.P.
Constellation Ventures III

Investment - Total Growth
Private Growth
Private Equity - continued
CVC European Equity Partners III
CVC European Equity Partners IV
CVC European Equity Partners V
CVC Capital Partners Fund VI
CVC Capital Partners Fund VII, L.P.
CVC Capital Partners Fund VIII, L.P.
DCVC Bio II, L.P.
EnCap Energy Capital Fund IX, L.P.
EnCap Energy Capital Fund X, L.P.
EnCap Energy Capital Fund XI, L.P.
Eureka III - Secondary
Eureka IV
Fenway Partners Capital Fund III, L.P.
First Reserve Fund XI, L.P.
German Equity Partners V (ECM GEP V)
Granite Global Ventures III
GGV Capital Plus VIII
GGV Capital VIII
GGV Discovery III
Green Equity Investors V
Hastings Equity IV, L.P.
Hastings Equity Co-Investment
Industry Ventures Partnership Holdings III
Industry Ventures Partnership Holdings III-C
Industry Ventures Partnership Holdings IV
Industry Ventures Partnership Holdings IV-Secondary
Industry Ventures Partnership Holdings V
Kayne Anderson Energy Fund IV, L.P.
Leapfrog Ventures II, L.P.
Leeds Equity Partners IV, L.P.
Level Equity Growth Partners IV, L.P.
Level Equity Opportunities Fund 2018
Lighthouse Capital Partners VI, L.P.
Nautic Partners V, L.P.
Nautic Partners VI, L.P.
Nautic Partners VII, L.P.
Nautic Partners VIII
Nautic Partners IX, L.P.
Nordic Capital Fund V
Nordic Capital Fund VI
Nordic Capital Fund VII
Nordic Capital Fund VIII
Odyssey Investment Partners Fund VI, LP
Paine Schwartz Food Chain Fund IV, L.P. - Secondary
Paine Schwartz Food Chain Fund V, L.P.
Paladin III, L.P.
Parthenon Investors II, L.P.
Parthenon Investors VI, L.P.
Point 406 Ventures I, L.P.
Pollen Street Capital IV, L.P
Providence Equity Partners IV
Providence Equity Partners V
Providence Equity Partners VI
Providence Equity Partners VII
Riverside Capital Appreciation Fund VI
Riverside Micro-Cap Fund III
Riverside Micro-Cap Fund V, L.P.
Riverside Micro Cap Fund IV B, L.P.
RLH IV
Shamrock Capital Growth Fund V
Siris Partners IV, L.P.
Sorenson Capital Partners III, L.P.
Southvest Fund VII, L.P.
TCG Crossover Fund
Tenex Capital Partners II
Tenex Capital Partners III
Thoma Bravo Discover Fund III, L.P.
Thoma Bravo Fund XIV, L.P.
Thomas, McNerney & Partners, L.P.
Thomas, McNerney & Partners II, L.P.
TPG Partners IV, L.P.
TPG Fund V
TPG Fund VI
Trilantic Capital Partners IV L.P.

Investment - Total Growth
Private Growth
Private Equity - continued
Vinci Capital Partners III
W Capital Partners II
Wynnchurch Capital Partners V

Investment - Income
Private Credit
Atalaya Asset Income Fund V LP
Benefit Street Senior Secured Opportunities Fund II
CapitalSpring Investment Partners V
CapitalSpring Investment Partners VI LP
Garrison Opportunity Fund IV
Owl Rock Capital Corporation III
Shamrock Capital Content Fund II LP
Shamrock CCF II Co-Invest I-A LP
Summit Partners Credit Fund LP
Summit Partners Credit Fund II LP
Virgo Societas Partnership IV
Zephyrus Aviation Partners I LP

Income - Other
Heitman - REITs
Harvest Partners - High Yield Infrastructure
Loomis Sayles - Liquid Credit
PIMCO - Liquid Credit
Neuberger Berman - Equity Options
Neuberger Berman - Collateralized Loan Obligations
Russell Investments - Income Bucket Transition
Wellington Management - EMD

Investment - Stability
Crisis Protection Class
WAMCO - Treasury Long Duration
Systematic Trend Following (CPC LLC)

Inflation Protection
Core Real Estate
AEW Core Property Trust
Heitman HART
JP Morgan Strategic Property Fund
Morgan Stanley Prime Property Fund

Private Infrastructure
Homestead Capital USA Farmland Fund III LP
IFM Global Infrastructure Fund
ISQ Global Infrastructure Fund I
ISQ Global Infrastructure Fund II
ISQ Global Infrastructure Fund III
Star America Infrastructure Fund II LP
Stonepeak Infrastructure Partners Fund II
Stonepeak II - Master Co-Investment Partners LP
Stonepeak Infrastructure Partners Fund III
Stonepeak Infrastructure Fund IV LP

Inflation Protection - Other
State Street Global Advisors - TIPS

Volatility Protection
Absolute Return Hedge Funds
Aristeia Partners, L.P.
Capula Global Relative Value Fund Ltd.
Davidson Kempner Institutional Partners LP
DE Shaw Composite International Fund
Elliott Associates LP
Graham Capital
Viking Global Equities LP

Volatility Protection - Other
Fidelity - IG Corporate Credit
Loomis Sayles - Securitized Credit
Payden & Rygel - Strategic Cash

Investment - Other
Hamilton Lane - Distribution Management
Russell Investments - Overlay

Executive Staff

Day-to-day operations of the Employees' Retirement System of Rhode Island are overseen by the following administrators (as of June 30, 2022):

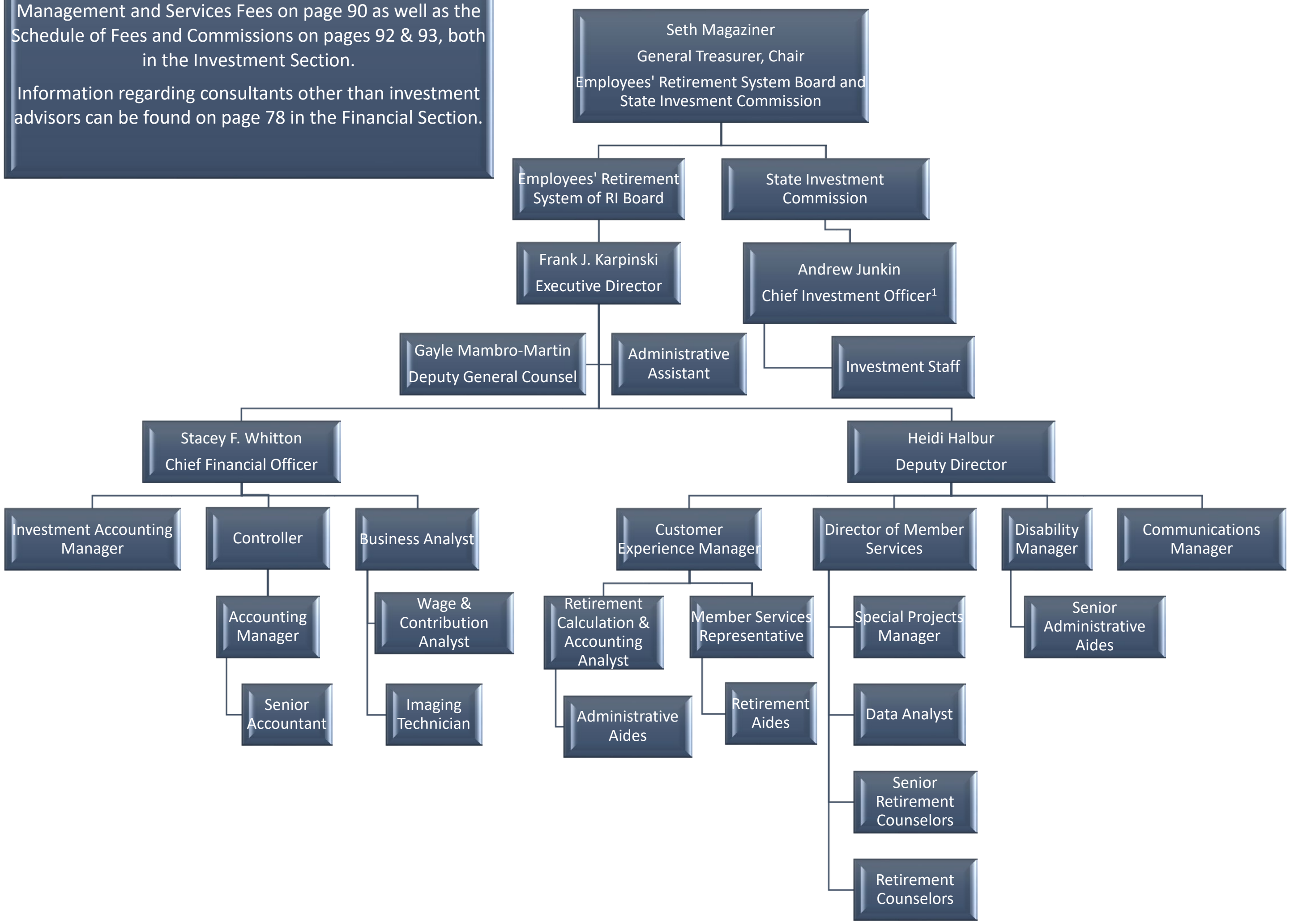
Frank J. Karpinski, *Executive Director*
Heidi Halbur, *Deputy Director*
Stacey F. Whitton, *Chief Financial Officer*
Michael P. Robinson, Esquire, *Retirement Board Counsel**

* Per Rhode Island General Law §36-8-9 legal counsel is appointed by the General Treasurer/Chair of the Retirement Board.

Professional Services:

Information regarding investment managers and consultants can be found in the Schedule of Investment Management and Services Fees on page 90 as well as the Schedule of Fees and Commissions on pages 92 & 93, both in the Investment Section.

Information regarding consultants other than investment advisors can be found on page 78 in the Financial Section.



[1] In July 2022, Andrew Junkin departed, and Eric Baggesen joined as CIO.

Financial Section

Independent Auditors' Report

Management's Discussion and Analysis

Basic Financial Statements

Notes to Basic Financial Statements

Required Supplementary Information

Notes to Required Supplementary Information

Supplementary Information

Office of the Auditor General
State of Rhode Island - General Assembly
Dennis E. Hoyle, CPA - Auditor General

oag.ri.gov

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INDEPENDENT AUDITOR'S REPORT

JOINT COMMITTEE ON LEGISLATIVE SERVICES, GENERAL ASSEMBLY
STATE OF RHODE ISLAND:

RETIREMENT BOARD OF THE EMPLOYEES' RETIREMENT SYSTEM OF THE
STATE OF RHODE ISLAND:

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying financial statements of the plans which comprise the Employees' Retirement System of the State of Rhode Island (the System) as of June 30, 2022 and for the year then ended, 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 financial statements referred to above present fairly, in all material respects, the respective financial position of the plans within the System, as of June 30, 2022, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

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 Auditor's 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.

Emphasis of Matters

As described in Note 1, the financial statements of the System present only the pension trust funds of the State of Rhode Island and Providence Plantations (the State) and do not purport to, and do not present fairly the financial position of the State, as of June 30, 2022 and the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

As described in Note 5, the fair values of certain investments (hedge funds, private equity, real estate, infrastructure, crisis protection class - trend following investments, and emerging markets debt - collective unit trust) representing 43.1% of assets within the pooled investment trust, have been estimated by management in the absence of readily determinable fair values. Management's estimates are based on information provided by the fund managers or general partners.

Joint Committee on Legislative Services, General Assembly
Retirement Board of the Employees' Retirement System

As described in Note 8, the fiduciary net position for the RIJRFT plan represents only 7.4% of the total pension liability of that plan at the June 30, 2022 measurement date. Employer contributions were significantly less than actuarially determined amounts. Additional employer contributions will be required to provide benefits to plan members.

Our opinions are not modified with respect to these matters.

Responsibilities of Management for the Financial Statements

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the 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.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our 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.
- 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.

Joint Committee on Legislative Services, General Assembly
Retirement Board of the Employees' Retirement System

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 4 through 11 and other required supplementary information as listed in the table of contents and pages 54 through 75 be presented to supplement the basic financial statements. Such information is the responsibility of management and although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The supplementary information, such as the Schedules of Investment, Administrative, and Consultant Expenses, is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedules of Investment, Administrative, and Consultant Expenses are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards,* we have issued a report dated December 28, 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 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.

Dennis E. Hoyle, CPA
Auditor General

December 28, 2022

EMPLOYEES’ RETIREMENT SYSTEM OF RHODE ISLAND

Management’s Discussion and Analysis

Management's Discussion and Analysis

Management of the Employees' Retirement System of the State of Rhode Island (the System) provides this Management's Discussion and Analysis of their financial performance for the readers of the System's financial statements. This narrative provides an overview of the System's financial activity for the fiscal year ended June 30, 2022. This analysis is to be considered in conjunction with the financial statements to provide an objective analysis of the System's financial activities based on the status of the System and issues currently facing management.

Understanding the Employees' Retirement System Financial Statements

The System administers seven defined benefit pension plans. State employees and teachers are combined into one cost-sharing plan while teachers' survivors benefits are provided from an additional cost-sharing plan. Two plans cover state police and two additional plans cover judges. Municipal employees are covered under a separate agent plan administered by the System. The System also administers a defined contribution plan for certain state employees, teachers, and employees of participating municipalities.

The *Statements of Fiduciary Net Position* provide a snapshot of the financial position of the System at June 30, 2022. The *Statements of Changes in Fiduciary Net Position* summarize the additions and deductions that occurred during the fiscal year.

The *Notes to the Financial Statements* provide additional information essential to a full understanding of the financial statements.

The *Required Supplementary Information* consists of schedules and related notes, which over time will be built to present 10 years of historical data. These schedules present each plan's net pension liability (asset) and changes in the net pension liability (asset) between years. A schedule of investment returns presents the annual money-weighted return for each defined benefit plan. A schedule of contributions is presented for each plan, which details required and actual contributions to the plan including covered payroll information.

Financial Highlights for the Fiscal Year Ended June 30, 2022

- The System's fiduciary net position decreased by $0.6 billion from $12.2 billion at June 30, 2021 to $11.6 billion at June 30, 2022.

- Total pension benefits paid to members from the defined benefit plans were $1.0 billion, an increase of $22.2 million or 2.3% when compared to the fiscal year ended June 30, 2021.

- Contributions to all defined benefit plans from both employers and employees at June 30, 2022 were $822.4 million, an increase of $142.1 million or 17.3% compared to the fiscal year ended June 30, 2021. Supplemental, additional and new employer contributions represented $114.0 of the $142.1 increase over fiscal year 2021.

- Total employee and employer contributions into the System's defined contribution plan were $139.8 million at June 30, 2022, an increase of $8.2 million.

- Total distributions paid to members from the defined contribution plan were $46.3 million.

- The net loss from investing activities within the defined benefit plans (Pooled Investment Trust) was $278.6 million for the fiscal year ended June 30, 2022. Investment losses within the defined contribution plan totaled $237.2 million.

Management's Discussion and Analysis

- Fiduciary net position as a percentage of the total pension liability for each of the defined benefit plans decreased compared to the prior measurement date primarily due to decreased investment income for fiscal 2022.

Financial Analysis

The System provides retirement and disability benefits from the defined benefit plans to State employees, public school teachers, participating municipal general and public safety employees, state police officers and judges. These benefits are funded through member and actuarily-determined employer contributions and investment income. The fiduciary net position is available to satisfy the financial obligations to members, retirees, and beneficiaries. The System also provides retirement benefits through a defined contribution plan which is intended to supplement retirement benefits available through the defined benefit plans for certain members as part of the System's "hybrid" benefit structure.

The total net position restricted for pensions at June 30, 2022 decreased to $11.6 billion when compared to $12.2 billion at June 30, 2021.

The following tables illustrate the condensed Net Position and condensed Changes in Net Position for ERSRI for the fiscal years ended June 30, 2022 and June 30, 2021.

Assets, Liabilities and Fiduciary Net Position – All Plans (in millions)

	June 30, 2022	June 30, 2021
Assets:		
Cash and cash equivalents	$ 7.7	$ 9.5
Investments	11,439.4	12,121.1
Contribution and other receivables	111.3	46.5
Total assets	11,558.4	12,177.1
Liabilities:		
Accounts payable	8.0	6.4
Total liabilities	8.0	6.4
Fiduciary Net Position:	$11,550.4	$12,170.7

Total assets decreased by $618.7 million, or 5.1%, for the fiscal year ending June 30, 2022, when compared to fiscal year ending June 30, 2021. Along with the decrease across most asset classes, fiscal year 2022 saw significant market changes as inflationary pressures and rising interest rates heightened the market's assessment of recession risk.

Cash and cash equivalents at June 30, 2022 decreased $1.8 million when compared to fiscal year ending June 30, 2021. The decrease in the total fiduciary net position can primarily be attributed to lower investment earnings. The decrease of $681.7 million, or 5.6%, of investments can be attributed to a decrease in the global markets. Contributions and other receivables increased by $64.9 million, due to the timing of amounts due from employers at June 30, 2022, namely $61.7 million from the State for the 1991 and 1992 deferrals amounts which was received during fiscal year 2023.

Management's Discussion and Analysis

Total liabilities increased $1.5 million, or 23%, for the fiscal year ending June 30, 2022 due to the timing of what was owed to vendors.

Summary of Changes in Fiduciary Net Position – All Plans (in millions)

	Year Ended June 30, 2022	Year Ended June 30, 2021
Additions:		
Contributions	$ 962.1	$ 811.9
Net investment gain (loss) *	(515.8)	2,634.3
Service Credit Transfers	16.0	18.2
Total Additions	462.3	3,464.4
Deductions:		
Benefits and distributions	1,047.9	1,011.5
Refunds of contributions	6.8	4.8
Administrative expenses	11.9	10.7
Service Credit Transfers	16.0	18.2
Total Deductions	1,082.6	1,045.2
Increase (Decrease) in Net Position:	(620.3)	2,419.2
Fiduciary Net Position:		
Beginning of year	12,170.7	9,751.5
End of year	$ 11,550.4	$ 12,170.7

* *Adjusted to include private asset valuations received after the 2022 Fiscal Year's custodial close*

Additions to Net Position

The revenues required to fund retirement and disability benefits for the defined benefit plans are accumulated from the contributions from employees and employers, as well as investment earnings. Employee and employer contribution revenue at June 30, 2022 was $591.9 million for the defined benefit plan, an increase of 4.6% when compared to $566.2 million at June 30, 2021. Employee and employer contributions to the defined contribution plan was $139.8 million at June 30, 2022, an increase of 6.2% when compared to $131.6 million at June 30, 2021.

The State of Rhode Island's share of contributions for the teachers' defined benefit plan was $116.3 million for fiscal 2022, an increase of 3.3% when compared to $112.6 million for fiscal 2021.

Contributions from employees and employers (except for the RIJRFT and SPRFT) are based on covered payroll. During fiscal year 2022 the covered payroll for each trust experienced an increase when compared to fiscal 2021. Also, contribution rates for the members are prescribed in Rhode Island General Law and fixed by statute. The employer contributions are actuarially determined through annual funding valuations and are adjusted accordingly to meet the financial obligations of each Trust.

Management's Discussion and Analysis

New employer contributions for new units established within the MERS plan accounted for $51.7 million of the fiscal year 2022 contributions. Within the ERS plan $61.7 million was appropriated in fiscal 2022 as part of the State's budget for the advance payment of pension deferrals from 1991 and 1992.

Deductions from Net Position

ERSRI was established to administer the funds of each Trust in order to provide lifetime retirement, survivor, and disability benefits to its membership. The primary categories that reduce the net position are benefit payments and distributions, refunds of contributions to members exiting the System, and the administrative expenses to operate ERSRI.

Benefits and distributions to members from the defined benefit plans at June 30, 2022 were $1.0 billion, an increase of 2.2% when compared benefits at June 30, 2021. There was a moderate cost-of-living increase to eligible employees, increase in the number of retirees, and the increase of higher average salaries of new retirees.

Distributions to members from the defined contribution plan at June 30, 2022 were $46.3 million, an increase of 44.3% when compared to $32.1 million at June 30, 2021. The increase is the result of the increased number of retirees eligible to elect distributions from this plan. The plan was created on July 1, 2012 for eligible members that did not have 20 years of service credit at June 30, 2012. Distributions are expected to increase as this plan matures and becomes a more significant portion of a member's retirement portfolio within ERSRI.

Refunds of contributions from the defined benefit plan at June 30, 2022 were $6.8 million, an increase of 42% when compared to $4.8 million at June 30, 2021. The increase in refunds is the result of an increase in the number and dollar value of refund requests from terminated members.

Administrative expenses for both the defined benefit and defined contribution plans at June 30, 2022 were $11.9 million, an increase of 11.0% when compared to $10.7 million at June 30, 2021. The increase in fiscal year 2022 is moderate in nature. Details of administrative expenses are listed in the *Schedule of Administrative Expenses* in the Supplementary Information section of this report.

ERSRI recognized $515.8 million in net investment loss at June 30, 2022.

Investment Philosophy

The State Investment Commission (SIC) establishes long-term asset allocation policy, selects managers, and monitors investment performance of the plan. A periodic asset allocation study is conducted to identify an optimal diversified investment portfolio that maximizes return within an acceptable level of risk. As long-term investors, the SIC has committed to the strategic asset allocation that has been developed as part of a comprehensive asset allocation study. The asset allocation study incorporates return expectations, risks and correlations associated with each asset class, as well as the unique profile and objectives of the System.

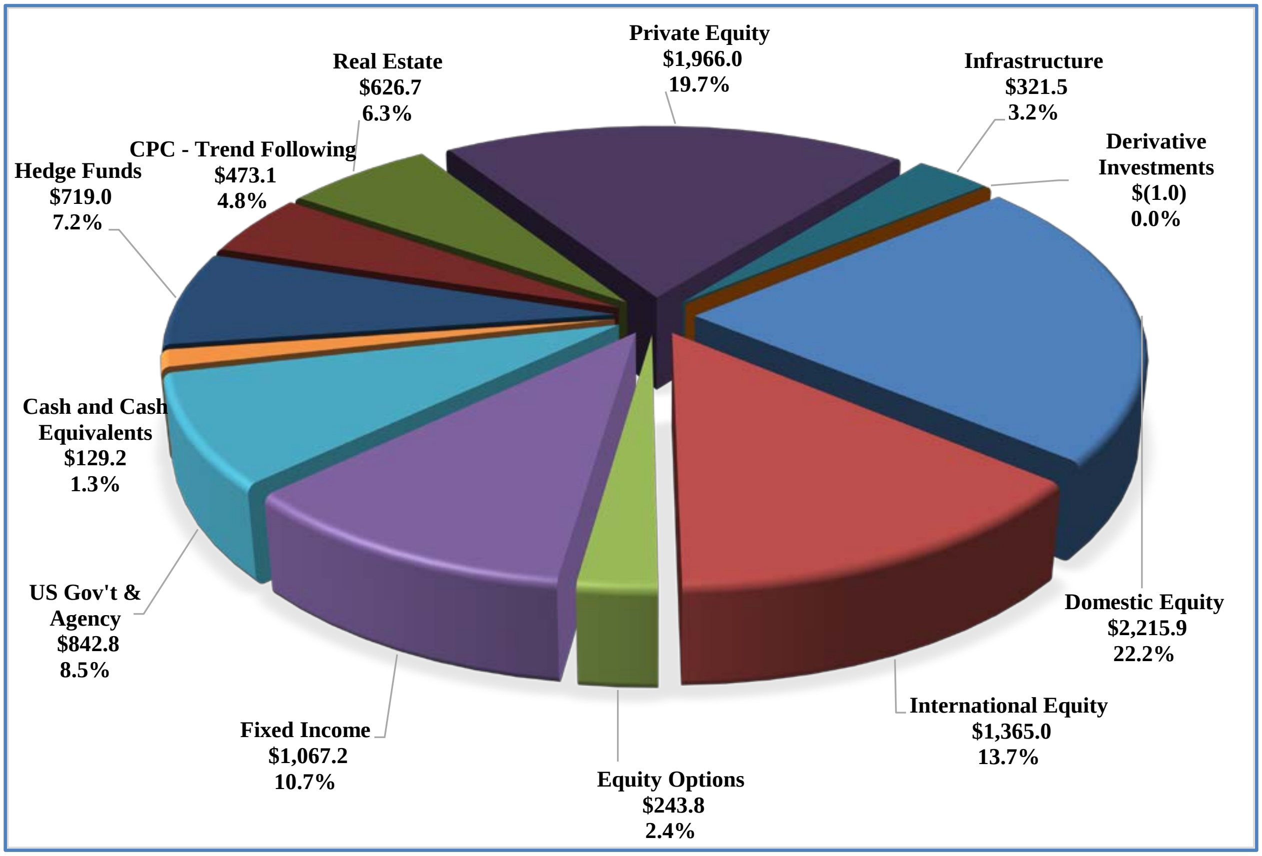
The SIC seeks to achieve the targeted investment return set by the Retirement Board, while minimizing risk and satisfying the plan's need for steady cash flows. As a mature defined benefit System where distributions exceed contributions, the System must balance its short-term cash flow requirements with the much longer time horizon of its total obligations. Diversification across asset classes that respond differently to different market environments is a key tool used by the SIC to seek strong long-term returns.

Management's Discussion and Analysis

The allocation of assets among stocks, bonds, and alternative investments can have a significant impact on risk-adjusted investment performance.

Rhode Island maintains one of the most comprehensive expense disclosure policies in the nation. Since 2015, Rhode Island has only invested with fund managers who agree to have their performance and expenses published regularly, a policy that has become a leading practice replicated by other states. In 2017, The Rhode Island General Assembly codified the disclosure policy in statute. While some investment managers selected prior to 2015 are grandfathered from the individualized reporting requirement, the Treasurer's office has requested that they voluntarily allow disclosure, which many have agreed to do. In addition to displaying the fees and expenses charged by each fund individually, this report includes a comprehensive total of all manager fees and expenses paid out of the pension system by asset class. These totals reflect fees and expenses paid to every fund, including those grandfathered funds that declined to allow individualized disclosure.

Pooled Investment Trust – Asset Allocation - June 30, 2022
(in millions)



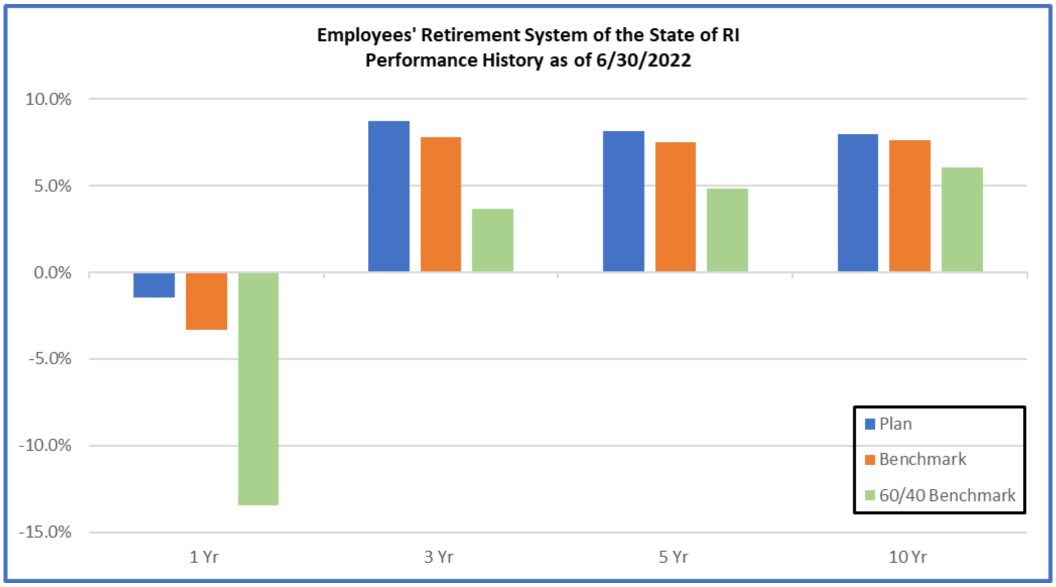
Investment Performance

The Pooled Investment Trust (Total Plan) returned -1.4%, time-weighted net of fees, during the Fiscal Year ended June 30, 2022. Positive performance across the Total Plan's Inflation Protection, Crisis Protection, and Private Growth allocations partially offset losses realized across portfolio allocations with exposure to broader public equity and fixed income market drawdowns.

Management's Discussion and Analysis

Plan Performance (as of 6/30/2022)	Annualized 1-Yr	3-Yr	5-Yr	10-Yr
Total Plan	**-1.4%**	**8.7%**	**8.1%**	**8.0%**
Total Plan Benchmark	**-3.3%**	**7.8%**	**7.5%**	**7.6%**
Total Plan Excess Return vs. Total Plan Benchmark	*+1.9%*	*+0.9%*	*+0.6%*	*+0.4%*
60/40 Benchmark	**-13.4%**	**3.7%**	**4.8%**	**6.0%**
Total Plan Excess Return vs. 60/40 Benchmark	*+12.0%*	*+5.0%*	*+3.3%*	*+2.0%*

* *Total Plan performance reflects all information available as of the 2022 Fiscal Year's custodial close and does not reflect fair value adjustments for alternative investments relating to the quarter ended June 30, 2022 which are included in ERSRI's financial statements.*



* *Total Plan performance reflects all information available as of the 2022 Fiscal Year's custodial close and does not reflect fair value adjustments for alternative investments relating to the quarter ended June 30, 2022 which are included in ERSRI's financial statements.*

The composite benchmark ("The Benchmark") is weighted based on asset allocation targets. The Benchmark for each of the years shown in the chart reflects the asset allocation targets in place for that fiscal year and the related indices used to measure performance. As of June 30, 2022, it is comprised of the following:

- 40.0% MSCI All Country World Net Index;
- 12.5% Cambridge Associates Private Equity and Venture Capital Aggregated Index 1Q Lag;
- 2.5% Cambridge Associates Value Add Real Estate Index 1Q Lag;
- 2.0% CBOE PUT Index;
- 2.0% Emerging Market Debt Custom Benchmark (50% JPM EMBI Global Diversified Index + 50% JPM GBI-EM Global Diversified Index);
- 3.0% BofA US High Yield Index;
- 3.0% Cambridge Associates Senior Debt Index 1Q Lag;
- 2.0% JPM CLOIE BB Index
- 5.0% Credit Suisse Managed Futures (18% Vol) Liquid Index;
- 5.0% Barclays Long Duration US Treasury Index;
- 4.0% NFI-ODCE Index 1Q Lag;
- 4.0% Cambridge Associates Private Infrastructure Index1 Q Lag;
- 3.25% Bloomberg Barclays US Corporate Bond Index;
- 3.25% Bloomberg Barclays Securitized MBS/ABS/CMBS Index;
- 6.5% HFRI Fund of Funds Composite Index; and
- 2.0% Bank of America Merrill Lynch 3-month US Treasury Bill.

The 60% global equity/40% bonds benchmark ("60/40 Benchmark") is 60% MSCI All-Country World and 40% Barclays Aggregate.

Additional Investment Performance Reporting

The investment performance discussed in the previous section is the time-weighted return, as reported by the System's investment custodian for the Pooled Investment Trust as a whole. In accordance with GASB Statement No. 67, investment performance is also measured on a money-weighted return basis for each defined benefit retirement plan. The money-weighted returns for each defined benefit plan are disclosed in the notes to the financial statements and the required supplementary information section. The money-weighted return reflects each individual plan's specific cash inflows and outflows, as well as the overall portfolio returns.

Several of the indexes used in the construction of The Benchmark are comprised of a universe of funds within the same strategy category ("Universe Benchmark"). Some funds included in a Universe Benchmark may report returns after the benchmark has published preliminary performance data for a given period. These funds are later incorporated in subsequent calculations of a Universe Benchmark's returns in future periods, resulting in updates to the preliminary performance for that period. As a result, The Benchmark returns described in the prior section may differ from returns shown for The Benchmark in earlier ERSRI monthly performance reporting. The Benchmark returns discussed in the previous section were reported by the System's investment custodian on December 2, 2022.

The System's actuarial investment return assumption is 7.0% for all plans except the Judicial Retirement Fund Trust which uses a 1.92% investment return assumption. This return expectation is adopted by the Retirement Board on recommendation by the plan's actuary. It is based on a thirty-year horizon. The actuarial value of assets is determined based on a five-year smoothing methodology.

Fiscal 2022 investment returns within the defined contribution plan ranged from -28.5% to +2.3% depending on investment options that plan members chose from the available options.

Net Pension Liability (Asset) of the Plans within the System

Independent actuarial valuations of the System are conducted each year. Due to the implementation of Governmental Accounting Standards Board (GASB) Statement No. 67 – *Financial Reporting for Pension Plan*s, the System presents the accounting measures of the net pension liability (asset) for each of the defined benefit plans. Calculation of the net pension liability (asset) of the plans is performed by the actuary in accordance with GASB requirements. The total pension liability and net pension liability are based on actuarial valuations performed as of June 30, 2021, rolled-forward to June 30, 2022 using generally accepted actuarial principles from the valuation date to the plan's fiscal year end. For five new units within the MERS plan, the net pension liability was measured as of an actuarial valuation performed as of June 30, 2022.

This accounting measure of the net pension liability (asset) of each plan is different from the actuarial valuations performed for funding purposes and the determination of annual contributions to each of the defined benefit plans. One of the principal differences is that the accounting measure of the net pension liability at June 30, 2022 utilizes each plan's fiduciary net position, which reflects the fair value of investments at that date. For funding purposes, the actuarial valuation uses the actuarial value of assets, which reflects a five-year smoothed asset valuation.

The measurement of the net pension liabilities for all defined benefit plans, except for the RIJRFT, utilized the System's investment return assumption of 7.0%. The RIJRFT utilized Fidelity's 20-Year Municipal GO AA Bond Index rate of 3.69%. The calculation of the net pension liability (asset) was measured as of June 30, 2022.

Management's Discussion and Analysis

Two plans were overfunded at the June 30, 2022 measurement date; the Teachers' Survivors Benefit plan fiduciary net position was equal to 177.7% of the total pension liability and the Judicial Retirement Benefit Trust plan fiduciary net position was equal to 101.1% of the total pension liability.

The fiduciary net position of the ERS plan covering state employees and teachers were equal to 59.6% and 62.1% respectively of the total pension liability measure for each of those employee groups. The fiduciary net position of the two plans covering State Police was equal to 90.4% (SPRBT) and 14.9% (SPRFT) of the total pension liability measure for each of those employee groups. The SPRFT plan was created July 1, 2016 for retired state police hired before July 1, 1987 with a one-time initial contribution of $15 million from the State and the State's commitment to fund the benefits on an actuarially determined basis rather than the previous pay-as-you-go approach. The fiduciary net position of the RIJRFT plan covering a small group of judges is funded by the State (employer) using a mostly pay-as-you-go funding approach; consequently, plan fiduciary net position was 7.4% of the total pension liability measure for that plan.

The fiduciary net position of the MERS plan covering general employees and municipal police and fire employees were equal to 88.5% and 85.0% respectively of the total pension liability measure for each of those employee groups.

All employers participating in the System's plans contributed 100% of their annual actuarially determined contribution during fiscal 2022, except for the State not providing the full employer contribution for the Rhode Island Judicial Retirement Fund Trust.

Future Contribution Rates

The fiscal 2023 employer contribution rates are based upon the actuarial valuations performed for funding purposes at June 30, 2020. The employer contribution rates for fiscal 2023 are 28.01% for State employees, 26.16% for Teachers, 24.16% for Judges, and 20.87% for State Police. For the Rhode Island Judicial Retirement Fund Trust and Non-Contributing State Police Retirement Fund Trust, the actuarially determined employer contribution is $1,190,045 and $16,387,092, respectively, for fiscal 2023.

Contacting the System's Management

This discussion and analysis presentation is designed to provide a general overview of the System's financial activity. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Employees' Retirement System, 50 Service Avenue, Warwick, RI, 02886.

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND
Statements of Fiduciary Net Position
June 30, 2022

	Defined Benefit Plans							Defined Contribution Plan	Total
	ERS	TSB	MERS	SPRBT	JRBT	RIJRFT	SPRFT		
Assets									
Cash and cash equivalents (Note 4)	$ 4,832,726	$ 400,679	$ 1,046,647	$ 602,696	$ 30,920	$ 733,616	$ 38,462	$ -	$ 7,685,746
Receivables									
Contributions	79,127,999	2,352	1,021,648	419,925	85,992	-	-	386,910	81,044,826
Due from State for teachers	24,497,989	-	-	-		-	-	-	24,497,989
Due from other plans	1,678,517	-	463,444	-	151,229	-	-		2,293,190
Other	1,131,247	-	96,327	36		37,588	19,085	-	1,284,283
Total receivables	106,435,752	2,352	1,581,419	419,961	237,221	37,588	19,085	386,910	109,120,288
Prepaid assets (Note 3)	1,736,614	80,547	377,867	29,518	15,150	85	4,420	-	2,244,201
Investments at fair value	-	-	-	-	-	-	-	-	-
Equity in pooled trust (Note 5)	7,221,821,359	401,529,275	2,034,050,110	189,553,472	97,592,258	805,571	23,845,450	-	9,969,197,495
Defined contribution plan investments (Note 6)	-	-	-	-	-	-	-	1,470,195,581	1,470,195,581
Total investments	7,221,821,359	401,529,275	2,034,050,110	189,553,472	97,592,258	805,571	23,845,450	1,470,195,581	11,439,393,076
Total Assets	7,334,826,451	402,012,853	2,037,056,043	190,605,647	97,875,549	1,576,860	23,907,417	1,470,582,491	11,558,443,311
Liabilities									
Accounts payable	4,350,114	216,296	971,900	82,933	34,176	391	12,740	-	5,668,550
Due to other plans	463,444	-	1,678,517	-	-	151,229	-	-	2,293,190
Total Liabilities	4,813,558	216,296	2,650,417	82,933	34,176	151,620	12,740	-	7,961,740
Net position restricted for pensions	$ 7,330,012,893	$ 401,796,557	$ 2,034,405,626	$ 190,522,714	$ 97,841,373	$ 1,425,240	$ 23,894,677	$ 1,470,582,491	$ 11,550,481,571

The accompanying notes are an integral part of this financial statement.

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

Statements of Changes in Fiduciary Net Position - Fiscal Year Ended June 30, 2022

	Defined Benefit Plans							Defined Contribution Plan	Total
	ERS	TSB	MERS	SPRBT	JRBT	RIJRFT	SPRFT		
Additions									
Contributions (Note 7)									
Member contributions	$ 89,195,296	$ 755,501	$ 20,190,121	$ 2,387,036	$ 1,398,104	$ 124,547	-	$ 106,933,744	$ 220,984,349
Employer contributions	390,524,970	755,501	61,955,109	5,210,604	2,611,262	405,345	16,387,092	32,841,236	510,691,119
New employer contributions	-	-	51,731,258	-	-	-	-	-	51,731,258
Additional employer contributions	-	-	230,000	-	-	-	-	-	230,000
State contribution for teachers (Note 7c)	116,290,553	-		-	-	-	-	-	116,290,553
Supplemental employer contributions (Note 7d)	61,888,258	-	123,590	-	-	-	-	-	62,011,848
Service credit transfer payments	11,081,373	-	4,882,290	-	-	-	-	-	15,963,663
Interest on service credits purchased	179,363	-	10,459	16,056	-	-	-	-	205,878
Total contributions	669,159,813	1,511,002	139,122,827	7,613,696	4,009,366	529,892	16,387,092	139,774,980	978,108,668
Investment Income									
Net appreciation (depreciation) in fair value of investments	(174,230,518)	(9,709,965)	(49,182,447)	(4,599,590)	(2,361,482)	(19,547)	(130,117)	(238,078,055)	(478,311,721)
Interest	47,383,426	2,628,074	12,969,474	1,222,951	632,287	5,197	201,134		65,042,543
Dividends	46,089,779	2,555,695	12,617,829	1,190,019	615,288	5,058	195,987	903,414	64,173,069
	(80,757,313)	(4,526,196)	(23,595,144)	(2,186,620)	(1,113,907)	(9,292)	267,004	(237,174,641)	(349,096,109)
Less investment expense (Note 3)	(121,157,357)	(6,735,575)	(33,479,596)	(3,156,852)	(1,628,450)	(13,415)	(538,742)	-	(166,709,987)
Net investment income (loss)	(201,914,670)	(11,261,771)	(57,074,740)	(5,343,472)	(2,742,357)	(22,707)	(271,738)	(237,174,641)	(515,806,096)
Miscellaneous revenue	32,759		16,164	44				2,500	51,467
Total Additions	467,277,902	(9,750,769)	82,064,251	2,270,268	1,267,009	507,185	16,115,354	(97,397,161)	462,354,039
Deductions									
Retirement benefits	840,547,961	11,259,389	117,480,101	7,745,056	4,699,733	500,279	15,697,878	-	997,930,397
Death benefits	3,018,253	-	692,800	-	-	-	-	-	3,711,053
Distributions	-	-		-	-	-	-	46,276,404	46,276,404
Refund of contributions	5,072,920	753,831	899,992	104,295	-	-	-	-	6,831,038
Service credit transfer payments	9,866,299		6,097,364		-	-	-	-	15,963,663
Administrative expense (Note 9)	7,627,379	413,199	2,038,965	202,845	97,187	1,326	22,296	1,468,943	11,872,140
Total Deductions	866,132,812	12,426,419	127,209,222	8,052,196	4,796,920	501,605	15,720,174	47,745,347	1,082,584,695
Net Increase (Decrease)	(398,854,910)	(22,177,188)	(45,144,971)	(5,781,928)	(3,529,911)	5,580	395,180	(145,142,508)	(620,230,656)
Net position restricted for pensions									
Beginning of year	7,728,867,803	423,973,745	2,079,550,597	196,304,642	101,371,284	1,419,660	23,499,497	1,615,724,999	12,170,712,227
End of year	$ 7,330,012,893	$ 401,796,557	$ 2,034,405,626	$ 190,522,714	$ 97,841,373	$ 1,425,240	$ 23,894,677	$ 1,470,582,491	$ 11,550,481,571

The accompanying notes are an integral part of this financial statement.

1. System Description and Governance

The Employees' Retirement System of the State of Rhode Island (the System) acts as a common investment and administrative agent for pension benefits to be provided through seven defined benefit retirement plans and one defined contribution plan as listed below:

Plan Name	***Type of Plan***
Employees' Retirement System (*ERS*)	Cost-sharing multiple-employer defined benefit plan
Teachers' Survivors Benefits *(TSB*)	Cost-sharing multiple-employer defined benefit plan
Municipal Employees' Retirement System (*MERS*)	Agent multiple-employer defined benefit plan
State Police Retirement Benefits Trust (*SPRBT*)	Single-employer defined benefit plan
Judicial Retirement Benefits Trust (*JRBT*)	Single-employer defined benefit plan
RI Judicial Retirement Fund Trust *(RIJRFT)*	Single-employer defined benefit plan
RI State Police Retirement Fund Trust (SPRFT)	Single-employer defined benefit plan
Rhode Island Defined Contribution Plan	Defined contribution plan

Each plan's assets are accounted for separately and may be used only for the payment of benefits to the members of that plan, in accordance with the terms of that plan.

The System's financial statements are included as Pension Trust Funds within the Fiduciary Funds in the Annual Comprehensive Financial Report of the State of Rhode Island. The accompanying financial statements are not intended to present the financial position and results of operations of the State.

The System is administered by the State of Rhode Island Retirement Board which was authorized, created and established in the Office of the General Treasurer as an independent retirement board to hold and administer, in trust, the funds of the retirement system. The fifteen members of the retirement board are: the general treasurer or his or her designee who shall be a subordinate within the general treasurer's office; the director of administration or his or her designee who shall be a subordinate within the department of administration; a representative of the budget office or his or her designee from within the budget office, who shall be appointed by the director of administration; the president of the league of cities and towns or his or her designee; two (2) active state employee members of the retirement system or officials from state employee unions to be elected by active state employees; two (2) active teacher members of the retirement system or officials from a teachers union to be elected by active teachers; one active municipal employee member of the retirement system or an official from a municipal employees union to be elected by active municipal employees; two (2) retired members of the retirement system to be elected by retired members of the system; and four (4) public members, all of whom shall be competent by training or experience in the field of finance, accounting or pensions; two (2) of the public members shall be appointed by the governor, one of whom shall serve an initial term of three (3) years and one of whom shall serve an initial term of four (4) years and until his or her successor is appointed and qualified; and two (2) of the public members shall be appointed by the general treasurer, one of whom shall serve an initial term of three (3) years and one of whom shall serve an initial term of four (4) years and until his or her successor is appointed and qualified. Thereafter, the term of these four (4) public members shall be for four (4) years or until their successors are appointed and qualified by the Senate.

The System's purpose is to provide retirement benefits to state employees, public school teachers, certain general and public safety municipal employees, state police officers, and judges.

1. System Description and Governance (continued)

A summary of membership by plan follows:

	Retirees and beneficiaries	*Terminated plan members entitled to but not yet receiving benefits*	*Active Vested*	*Active Non-vested*	*Total by Plan*
Actuarial valuation as of June 30, 2021					
ERS					
State Employees	11,373	4,154	7,726	3,077	26,330
Teachers	11,398	4,227	11,028	2,344	28,997
TSB	599	3,166	7,176	-	10,941
MERS					
General Employees	5,003	3,467	3,876	1,910	14,256
Public Safety	1,046	260	1,275	498	3,079
SPRBT	88	56	61	181	386
JRBT	31	1	18	38	88
RIJRFT	2	-	5	-	7
SPRFT	243	-	-	-	243
Total by type	29,783	15,331	31,165	8,048	84,327

The defined contribution plan at June 30, 2022 included 179 employers and 40,442 plan participants.

2. Plan Membership and Benefit Provisions

Membership and benefit provisions are outlined in the Rhode Island General Laws and are subject to modification by the General Assembly. Modifications to pension benefit and eligibility provisions have been made in recent years as well as the comprehensive pension reform provisions contained in the Rhode Island Retirement Security Act enacted on November 18, 2011 and effective July 1, 2012. Legal challenges to those pension reforms were settled with the final settlement approved by the Court on July 8, 2015. The General Assembly amended the various sections of the General Laws containing those benefit provisions consistent with the terms of the settlement agreement. Those provisions are generally effective beginning July 1, 2015. The benefit provisions for each of the plans as outlined below were those in effect for fiscal 2015. Reference is made in each section to a summary of benefit and contribution provisions that will be in effect for future years.

Accordingly, specific member retirement benefit and eligibility provisions vary depending upon a number of factors including years of service, age, and vesting provisions.

The ERS was established and placed under the management of the Retirement Board for the purpose of providing retirement allowances for employees of the State of Rhode Island under the provisions of chapters 8 to 10, inclusive, of Title 36, and public school teachers under the provisions of chapters 15 to 17, inclusive, of Title 16 of the Rhode Island General Laws.

2. Plan Membership and Benefit Provisions (continued)

EMPLOYEES' RETIREMENT SYSTEM (ERS)

Plan members - The plan covers most State employees other than certain personnel at the State colleges and university (principally faculty and administrative personnel). The plan also covers teachers, including superintendents, principals, school nurses, and certain other school officials in the public schools in the cities and towns. Membership in the plan is mandatory for all covered state employees and teachers. Elected officials may become members on an optional basis and legislators may participate if elected to office prior to January 1, 1995.

Certain employees of the Rhode Island Airport Corporation (hired before July 1, 1993), the Rhode Island Commerce Corporation (active contributing members and employees of the Department of Economic Development before October 31, 1995 who elected to continue membership) and, the Narragansett Bay Water Quality District Commission (members of a collective bargaining unit) are also covered and have the same benefits as State employees.

Plan vesting provisions – after five years of service**.**

Retirement eligibility and plan benefits – are summarized in the following table:

Schedule		Retirement Eligibility	Benefit accrual rates	Maximum benefit
(A)	Completed 10 years of service on or before July 1, 2005 and eligible to retire as of September 30, 2009	Age 60 with 10 years of service or after 28 years of service at any age	Effective until June 30, 2012: 1.7% for each of first ten years 1.9% for each of next ten years 3.0% for each of next fourteen years 2% for the 35th year Effective July 1, 2012: 1.0% per year through June 30, 2015. Effective July 1, 2015, for members with 20 years of service as of July 1, 2012: 2% per year	80% of final average earnings (3 consecutive highest years)
(AB)	Completed 10 years of service on or before July, 1, 2005 but ineligible to retire as of September 30, 2009	Minimum retirement age of 62 and ten years of service with a downward adjustment of the minimum retirement age based on the years of service credit as of September 30, 2009	Effective until June 30, 2012: Same accrual rates as (A) above to September 30, 2009 and then Schedule B rates (below) thereafter Effective July 1, 2012: 1.0% per year through June 30, 2015. Effective July 1, 2015, for members with 20 years of service as of July 1, 2012: 2% per year	80% of final average earnings (5 consecutive highest years)
(B)	Less than 10 years of service before July 1, 2005 and eligible to retire as of September 30, 2009	Age 65 with 10 years of service or after 29 years of service and age 59	Effective until June 30, 2012: 1.6% for each of first ten years 1.8% for each of next ten years 2.0% for each of next five years 2.25% for each of next five years 2.5% for each of next seven years 2.25% for the 38th year Effective July 1, 2012: 1.0% per year	75% of final average earnings (5 consecutive highest years)

2. Plan Membership and Benefit Provisions (continued)

(B1)	Less than 10 years of service before July 1, 2005 and ineligible to retire as of September 30, 2009	Age 65 with ten years of service, or age 62 with at least 29 years of service with a downward adjustment of the minimum retirement age based on the years of service credit as of September 30, 2009	Same as Schedule B	75% of final average earnings (5 consecutive highest years)
(B2)	Less than 5 years of service as of July 1, 2012	Social Security Retirement Age and 5 years of contributory service	1.6% for each of first ten years Effective July 1, 2012: 1.0% per year	75% of final average earnings (5 consecutive highest years)

Effective July 1, 2015 general employees with more than 20 years of service at July 1, 2012 increased their employee contribution rates to 11% and will participate solely in the defined benefit plan. Members will receive a benefit accrual of 2% per year based on the three or five-year average compensation.

Effective July 1, 2015 employees are eligible to retire upon the attainment of: age 65 with 30 years of service, 64 with 31 years of service, 63 with 32 years of service, or 62 with 33 years of service. Members may retire earlier if their RIRSA date is earlier or are eligible under a transition rule.

State correctional officers may retire at age 50 with 20 years of service. However, if not eligible to retire as of September 30, 2009, the minimum retirement age was modified to 55 with 25 years of service credit for correctional officers and registered nurses at the Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals.

The plan provides for survivor's benefits for service-connected death and certain lump sum death benefits.

Joint and survivor options are available to members. For members with 10 years of service as of July 1, 2005, the Service Retirement Allowance (SRA) Plus option provides for the payment of a larger benefit before the attainment of age sixty-two (62) and a reduced amount thereafter. The reduced amount is equal to the benefit before age sixty-two (62), including cost-of-living increases, minus the member's estimated social security benefit payable at age sixty-two (62).

Vested members that have 10 or more years of contributing service credit on June 30, 2012, may choose to retire at a retirement eligibility date that was calculated as of September 30, 2009, if the member continues to work and make retirement contributions until that date. If the member chooses this option, their retirement benefits will be calculated using the benefit that they have accrued as of June 30, 2012 - members will accumulate no additional defined benefits after this date, but the benefit will be paid without any actuarial reduction.

State employees and public school teachers may retire with a reduced pension benefit if they have 20 years of service credit and they are within five years of their retirement date as prescribed in the Rhode Island Retirement Security Act (RIRSA). The actuarially reduced benefit will be calculated based on how close the member is to their RIRSA eligibility date.

2. Plan Membership and Benefit Provisions (continued)

Cost of Living Adjustments – The Cost of Living Adjustment (COLA) has been suspended until the collective ERS, SPRBT and JRBT plans reach a funded status of 80%. The COLA provision will be reviewed in a four-year interval while the plans are less than 80% funded. When the collective funding level of a plan exceeds 80%, eligible retirees may receive a COLA annually effective on their date of retirement plus one month.

The COLA calculation is represented by the following formula: 50% of the COLA is calculated by taking the previous 5-year average investment return, less 5% (5-year return – 5.0%, with a max of 4%) and 50% calculated using the increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

The benefit adjustments are provided to all retirees entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect, and for all other retirees, the benefit adjustments shall commence upon the third anniversary of the date of retirement or the date on which the retiree reaches his or her Social Security retirement age, whichever is later. For members (and their beneficiaries) retiring after June 30, 2015, the annual benefit adjustment provided in any calendar year is equal to the lesser of either the member's retirement allowance or the first $27,901 (indexed as of January 1, 2022) of retirement allowance multiplied by the percentage resulting from the COLA calculation as outlined in the preceding paragraph. The retirement amount subject to the COLA calculation is indexed annually in the same percentage as the COLA determination and is run annually regardless of the collective funding status.

For members and/or beneficiaries of members who retired on or before June 30, 2015 the current indexed amount of $27,901 is replaced with $33,481 (indexed as of January 1, 2022) until the funded ratio of the ERS, SPRBT and JRBT, calculated by the system's actuary on an aggregate basis, exceeds eighty percent (80%). At such time, the benefit adjustments will then be provided on the lower amount (currently indexed at $27,901).

Disability retirement provisions **-** the plan also provides nonservice-connected disability benefits after five years of service and service-connected disability pensions with no minimum service requirement. Effective for applications filed after September 30, 2009, accidental disability will be available at 66 2/3% for members who are permanently and totally disabled as determined by the Retirement Board. If the disability is determined to be partial and the member is able to work in other jobs, the benefit will be limited to 50%. Disability benefits are subject to annual review by the Retirement Board.

Other plan provisions **-** Service credit purchases, excluding contribution refund paybacks and military service, requested after June 16, 2009 are calculated at full actuarial cost.

TEACHERS' SURVIVORS BENEFITS (TSB)

Plan members – the TSB covers all teachers in 25 school districts who do not participate in Social Security.

Plan vesting provisions – Survivors are eligible for benefits if the member has made contributions for at least six months prior to death or retirement.

Eligibility and plan benefits **-** the plan provides a survivor benefit to public school teachers in lieu of Social Security since not all school districts participate in the plan. The cost of the benefits provided by the plan are two percent (2%) of the member's annual salary up to but not exceeding an annual salary of $11,500; one-half (1/2) of the cost is contributed by the member by deductions from his or her salary, and the other half (1/2) is contributed and paid by the respective school district by which the member is employed. These contributions are in addition to the contributions required for regular pension benefits.

2. Plan Membership and Benefit Provisions (continued)

Spouse, parents, family and children's benefits are payable following the death of a member. A spouse shall be entitled to benefits upon attaining the age of sixty (60) years. Children's benefits are payable to the child, including a stepchild or adopted child of a deceased member if the child is unmarried and under the age of eighteen (18) years or twenty-three (23) years and a full-time student, and was dependent upon the member at the time of the member's death. Family benefits are provided if at the time of the member's death the surviving spouse has in his or her care a child of the deceased member entitled to child benefits. Parents' benefits are payable to the parent or parents of a deceased member if the member did not leave a widow, widower, or child who could ever qualify for monthly benefits on the member's wages and the parent has reached the age of 60 years, has not remarried, and received support from the member. In January, a yearly cost-of-living adjustment for spouse's benefits is paid and based on the annual social security adjustment.

The TSB plan provides benefits based on the highest salary at the time of retirement of the teacher. Benefits are payable in accordance with the following table:

Highest Annual Salary	Basic Monthly Spouse's or Domestic Partner's Benefit
$17,000 or less	$ 825
$17,001 to $25,000	$ 963
$25,001 to $33,000	$ 1,100
$33,001 to $40,000	$ 1,238
$40,001 and over	$ 1,375

Benefits payable to children and families are equal to the spousal benefit multiplied by the percentage below:

Parent and 1 Child	Parent and 2 or more Children	One Child Alone	Two Children Alone	Three or more Children Alone	Dependent Parent
150%	175%	75%	150%	175%	100%

Cost of Living Adjustments – current eligible members' beneficiaries of the TSB receive the same COLA granted to members of Social Security. There was a 5.9% increase as of January 1, 2022.

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM (MERS)

The MERS was established under the Rhode Island General Laws and placed under the management of the Retirement Board to provide retirement allowances to employees of municipalities, housing authorities, water and sewer districts, and municipal police and fire persons that have elected to participate.

Plan members – A summary of participating employers is listed below:

Municipalities, housing authorities, water and sewer districts	69
Municipal police and fire departments	53
Total participating units as of the actuarial valuation at June 30, 2021	122

Plan vesting provisions – after five years of service**.**

2. Plan Membership and Benefit Provisions (continued)

Retirement eligibility and plan benefits – For general employees prior to June 30, 2012 the plan provided retirement benefits equal to 2% of a member's final average salary multiplied by the number of years of total service up to a maximum of 75%. Such benefits are available to members at least age 58 with 10 years of service or after 30 years of service at any age. Benefits accrued at June 30, 2012 are protected under the Rhode Island Retirement Security Act until it is exceeded by the member's full years of service credit, including service after June 30, 2012, multiplied by the average of five consecutive years of compensation. Effective July 1, 2012 the retirement age mirrors the Social Security Normal Retirement Age not to exceed age 67. Members will receive a benefit accrual of 1.0% per year based on the five-year average compensation.

Effective July 1, 2015 general employees with more than 20 years of service at July 1, 2012 will increase their employee contribution rates to 8.25% (9.25% for units with a cost of living adjustment provision) and will participate solely in the defined benefit plan. Members will receive a benefit accrual of 2% per year based on the three or five-year average compensation.

Effective July 1, 2015 general employees are eligible to retire upon the attainment of: age 65 with 30 years of service, 64 with 31 years of service, 63 with 32 years of service, or 62 with 33 years of service. Members may retire earlier if their RIRSA date is earlier or are eligible under a transition rule.

Joint and survivor options are available. For members with 10 years of service as of July 1, 2005, the Service Retirement Allowance (SRA) Plus option provides for the payment of a larger benefit before the attainment of age sixty-two (62) and a reduced amount thereafter. The reduced amount is equal to the benefit before age sixty-two (62), including cost-of-living increases, minus the member's estimated social security benefit payable at age sixty-two (62).

Prior to June 30, 2012, police and fire personnel may retire at age 55 if they have 10 years of service or after 25 years of service at any age. An option may be elected to provide a 20-year service pension with a benefit equal to 2.5% for each year of service up to a maximum of 75% for police and fire personnel. Benefits are based on the average of the highest three consecutive years' earnings, exclusive of overtime.

From June 30, 2012 to June 30, 2015, retirement age for police and fire personnel is 55 years old with 25 years of total service or for members with five years of service but less than 25 years of service the new retirement age will mirror the Social Security Normal Retirement Age not to exceed 67. Police officers or firefighters, that are at least 45 years old, have 10 or more years of contributing service and are eligible to retire prior to age 52 under the law in effect on June 30, 2012, may retire at age 52. Effective July 1, 2015, police and fire personnel may retire at age 50 with 25 years of service, or any age with 27 years of service. MERS police and fire personnel will contribute 9.00% (10.00% for units with a cost of living adjustment).

As of June 30, 2012, members will continue to have a frozen benefit accrual of 2.0% per year for a standard 25 year with any age and out plan; 2.5% for a standard 20 year with any age and out plan. Effective July 1, 2012 the optional 20 and 25 year with retirement at any age plans have been eliminated. The benefit accrual for all plans will be 2.0% per year based on the five-year average compensation, exclusive of overtime. Police and fire employees may retire with a reduced pension benefit if they have 20 years of service and are within five years of their retirement eligibility. The actuarially reduced benefit will be calculated based on how close the member is to the eligibility date that is prescribed in the Rhode Island Retirement Security Act.

The plan also provides survivor's benefits and certain lump sum death benefits.

2. Plan Membership and Benefit Provisions (continued)

Cost of Living Adjustments – An optional cost-of-living provision may be elected for police and fire personnel and general employees. The Cost of Living Adjustment (COLA) has been suspended for any unit whose funding level is less than 80%. The COLA provision will be reviewed in a four-year interval while the plans are less than 80% funded. When the funding level of a plan exceeds 80% funded eligible retirees may receive a COLA annually effective on the date of their retirement plus one month.

The COLA calculation is represented by the following formula: 50% of the COLA is calculated by taking the previous 5-year average investment return, less 5% (5-year return – 5.0%, with a max of 4%) and 50% calculated using the increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

The benefit adjustments are provided to all retirees entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect, and for all other retirees the benefit adjustments shall commence upon the third anniversary of the date of retirement or the date on which the retiree reaches his or her Social Security retirement age, whichever is later. For police and fire employees that retired under the provisions of § 45-21.2-5(b)(1)(A), the benefit adjustment provided shall commence on the later of the third anniversary of the date of retirement or the date on which the retiree reaches age fifty-five (55); or for police and fire employees retiring under the provisions of §45-21.2-5(b)(1)(B), the benefit adjustment shall commence on the later of the third anniversary of the date of retirement or the date on which the retiree reaches age fifty (50). For all present and former employees, active and retired members, and beneficiaries receiving any retirement, disability or death allowance or benefit of any kind, the annual benefit adjustment provided in any calendar year is equal to the lesser of either the member's retirement allowance or the first $27,901 (indexed as of January 1, 2022) of retirement allowance, multiplied by the percentage resulting from the COLA calculation as outlined in the preceding paragraph. The retirement amount subject to the COLA calculation is indexed annually in the same percentage as the COLA determination and is run annually regardless of the collective funding status.

For members and/or beneficiaries of members who retired on or before June 30, 2015, the indexed amount of $27,901 is replaced with $33,481 (indexed as of January 1, 2022) until the municipal plan's funded ratio, calculated by the system's actuary, exceeds eighty percent (80%). At such time, the benefit adjustments will then be provided on the lower amount (currently indexed at $27,901).

The actual COLA paid to retirees effective January 1, 2022 within MERS units that had achieved an 80% funding status was 3.50%. Retirees within 64 MERS units received the COLA.

Disability retirement provisions - The plan also provides nonservice-connected disability benefits after 5 years of service; service-connected disability pensions with no minimum service requirement.

STATE POLICE RETIREMENT BENEFITS TRUST (SPRBT)

The State Police Retirement Benefits Trust was established under Rhode Island General Law Section 42-28-22.1 and was placed under the management of the Retirement Board for the purpose of providing retirement allowances to State Police.

Plan members – the plan covers all State Police and Superintendents hired after July 1, 1987.

Retirement eligibility and plan benefits – Prior to June 30, 2012 the plan generally provides retirement benefits equal to 50% of final salary after 20 years of service, plus 3.0% of final salary times service in excess of 20 years through 25 years to a maximum of 65% of final salary. Such benefits are available to members after 20 years of service regardless of age. The Superintendent of the State Police will receive 50% of his/her final salary and may retire after attainment of age 60 and 10 years of service.

2. Plan Membership and Benefit Provisions (continued)

The General Laws were amended such that any member of the state police, other than the superintendent, who is hired on or after July 1, 2007 and who has served for twenty-five (25) years shall be entitled to a retirement allowance of 50% of the final salary. In addition, any member may serve up to a maximum of 30 years, and shall be allowed an additional amount equal to 3.0% for each completed year served after 25 years to a maximum retirement allowance not to exceed 65% of the final salary.

Benefits are based on the final base salary earned at retirement including longevity increment, holiday pay, clothing allowance and up to 400 overtime hours.

Effective July 1, 2012 state police officers are eligible to retire once they have accrued a retirement benefit equal to 50% of their whole salary, with mandatory retirement once they have accrued a retirement benefit equal to 65% of their whole salary. State police officers will earn a 2% accrual rate for each year of contributing service. Benefits will be calculated on the average of the highest five consecutive years of salary, including up to 400 hours of mandatory overtime service. Benefits accrued as of June 30, 2012 will be protected under the Rhode Island Retirement Security Act.

Cost of Living Adjustments – The Cost of Living Adjustment (COLA) has been suspended until the collective ERS, SPRBT and JRBT plans reach a funded status of 80%. The COLA provision will be reviewed in a four-year interval while the plans are less than 80% funded. When the collective funding level of a plan exceeds 80%, eligible retirees may receive a COLA annually effective on their date of retirement plus one month.

The COLA calculation is represented by the following formula: 50% of the COLA is calculated by taking the previous 5-year average investment return, less 5% (5-year return – 5.0%, with a max of 4%) and 50% calculated using the increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

The benefit adjustments are provided to all retirees entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect, and for all other retirees, the benefit adjustments shall commence upon the third anniversary of the date of retirement or the date on which the retiree reaches his or her Social Security retirement age, whichever is later. For members (and their beneficiaries) retiring after June 30, 2015, the annual benefit adjustment provided in any calendar year is equal to the lesser of either the member's retirement allowance or the first $27,901 (indexed as of January 1, 2022) of retirement allowance multiplied by the percentage resulting from the COLA calculation as outlined in the preceding paragraph. The retirement amount subject to the COLA calculation is indexed annually in the same percentage as the COLA determination and is run annually regardless of the collective funding status.

For members and/or beneficiaries of members who retired on or before June 30, 2015 the current indexed amount of $27,901 is replaced with $33,481 (indexed as of January 1, 2022) until the funded ratio of the ERS, SPRBT and JRBT, calculated by the system's actuary on an aggregate basis, exceeds eighty percent (80%). At such time, the benefit adjustments will then be provided on the lower amount (currently indexed at $27,901).

Disability retirement provisions - the plan provides nonservice-connected disability benefits after 10 years of service and service-connected disability pensions with no minimum service requirement.

2. Plan Membership and Benefit Provisions (continued)

JUDICIAL RETIREMENT BENEFITS TRUST (JRBT)

The Judicial Retirement Benefits Trust was established under Rhode Island General Laws 8-8.2-7; 8-3-16; 8-8-10.1; 28-30-18.1; and was placed under the management of the Retirement Board for the purpose of providing retirement allowances to Justices of the Traffic Tribunal, Supreme, Superior, Family, District and Workers Compensation courts.

Plan members – the plan covers all Judges appointed after December 31, 1989.

Retirement eligibility and plan benefits – are summarized in the following table:

Judges appointed	Retirement benefit
After: December 31, 1989 but before July 2, 1997	75% of the final salary at the time of retirement after 20 years of service, or 10 years of service and attainment of age 65. Judges retiring after 20 years of service after age 65 or 15 years of service after age 70 receive full retirement benefits, which is the final salary at time of retirement.
After: July 2, 1997 but before January 1, 2009	Same as above except, salary is the average highest three (3) consecutive years of compensation rather than final salary.
After: January 1, 2009 but before July 1, 2009	Judges with 20 years of service after age 65 or judges with 15 years of service after age 70 will receive 90% of the average of the highest three consecutive years of compensation. Judges appointed on or after January 1, 2009 with 10 years of service and age 65 or 20 years of service at any age are entitled to a reduced benefit of 70% of the average highest three consecutive years of compensation. Judges designating a survivor benefit with 20 years of service and age 65 or 15 years of service and age 70 receive a reduced benefit equal to 80% of the average highest three consecutive years of compensation. Judges designating a survivor benefit with 10 years of service after age 65 or 20 years of service at any age receive a reduced benefit equal to 60% of the average highest three consecutive years of compensation.
After: July 1, 2009	Judges with 20 years of service after age 65 or with 15 years of service after age 70 will receive 80% of the average of the highest five consecutive years of compensation. Judges with 10 years of service and age 65 or 20 years of service at any age are entitled to a reduced benefit of 65% of the average highest five consecutive years of compensation. Judges designating a survivor benefit with 20 years of service and age 65 or 15 years of service and age 70 receive a reduced benefit equal to 70% of average highest five consecutive years of compensation. Judges designating a survivor benefit with 10 years of service after age 65 or 20 years of service at any age receive a reduced benefit equal to 55% of average highest five consecutive years of compensation.

Certain survivor benefits are also provided to judges who are plan members, which is 50% of the benefit amount payable to the judicial member.

2. Plan Membership and Benefit Provisions (continued)

***Cost of Living Adjustments* –** The Cost of Living Adjustment (COLA) has been suspended until the collective ERS, SPRBT and JRBT plans reach a funded status of 80%. The COLA provision will be reviewed in a four-year interval while the plans are less than 80% funded. When the collective funding level of a plan exceeds 80%, eligible retirees may receive a COLA annually effective on their date of retirement plus one month.

The COLA calculation is represented by the following formula: 50% of the COLA is calculated by taking the previous 5-year average investment return, less 5% (5-year return – 5.0%, with a max of 4%) and 50% calculated using the increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

The benefit adjustments are provided to all retirees entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect, and for all other retirees, the benefit adjustments shall commence upon the third anniversary of the date of retirement or the date on which the retiree reaches his or her Social Security retirement age, whichever is later. For members (and their beneficiaries) retiring after June 30, 2015, the annual benefit adjustment provided in any calendar year is equal to the lesser of either the member's retirement allowance or the first $27,901 (indexed as of January 1, 2022) of retirement allowance multiplied by the percentage resulting from the COLA calculation as outlined in the preceding paragraph. The retirement amount subject to the COLA calculation is indexed annually in the same percentage as the COLA determination and is run annually regardless of the collective funding status.

For members and/or beneficiaries of members who retired on or before June 30, 2015 the current indexed amount of $27,901 is replaced with $33,481 (indexed as of January 1, 2022) until the funded ratio of the ERS, SPRBT and JRBT, calculated by the system's actuary on an aggregate basis, exceeds eighty percent (80%). At such time, the benefit adjustments will then be provided on the lower amount (currently indexed at $27,901).

STATE OF RHODE ISLAND JUDICIAL RETIREMENT FUND TRUST (RIJRFT)

Effective July 1, 2012 and pursuant to Rhode Island General Law section 8-3-16, the retirement board established a trust to collect proceeds for the purpose of paying retirement benefits to participating judges or their beneficiaries.

Plan members – the plan covers seven (7) judges appointed prior to January 1, 1990. These members are active judges (as of June 30, 2012) appointed prior to January 1, 1990 that do not participate in the Judicial Retirement Benefit Trust. Prior to creating the trust, benefits for these members were intended to be funded on a pay-as-you-go basis. To the extent assets in the trust are insufficient to fund member benefits, the State would also fund retirement benefits on a pay-as-you-go basis as it does for sixty-five (65) retired judges and surviving beneficiaries that were not members of either judicial plan. The employee contribution rate is 12% of salary (except for members of the Supreme Court who contribute 8.75%).

Retirement eligibility and plan benefits – The plan provides retirement benefits for members who have served for 20 years and have reached the age of 65 years, or has served 15 years, and reached the age of 70 years and may retire from regular service and receive a benefit equal to the annual salary the justice was receiving at the time of their retirement. Members who served as a justice for 20 years or have served for 10 years and reached age 65 years may retire from regular service and receive a benefit equal to 75% of the annual salary at the time of retirement.

2. Plan Membership and Benefit Provisions (continued)

Cost of Living Adjustments – The Cost of Living Adjustment (COLA) has been suspended until the collective ERS, SPRBT and JRBT plans reach a funded status of 80%. The COLA provision will be reviewed in a four-year interval while the plans are less than 80% funded. When the collective funding level of a plan exceeds 80%, eligible retirees may receive a COLA annually effective on their date of retirement plus one month.

The COLA calculation is represented by the following formula: 50% of the COLA is calculated by taking the previous 5-year average investment return, less 5% (5-year return – 5.0%, with a max of 4%) and 50% calculated using the increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

The benefit adjustments are provided to all retirees entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect, and for all other retirees, the benefit adjustments shall commence upon the third anniversary of the date of retirement or the date on which the retiree reaches his or her Social Security retirement age, whichever is later. For members (and their beneficiaries) retiring after June 30, 2015, the annual benefit adjustment provided in any calendar year is equal to the lesser of either the member's retirement allowance or the first $27,901 (indexed as of January 1, 2022) of retirement allowance multiplied by the percentage resulting from the COLA calculation as outlined in the preceding paragraph. The retirement amount subject to the COLA calculation is indexed annually in the same percentage as the COLA determination and is run annually regardless of the collective funding status.

For members and/or beneficiaries of members who retired on or before June 30, 2015 the current indexed amount of $27,901 is replaced with $33,481 (indexed as of January 1, 2022) until the funded ratio of the ERS, SPRBT and JRBT, calculated by the system's actuary on an aggregate basis, exceeds eighty percent (80%). At such time, the benefit adjustments will then be provided on the lower amount (currently indexed at $27,901).

STATE OF RHODE ISLAND STATE POLICE RETIREMENT FUND TRUST (SPRFT)

Effective June 8, 2016 and pursuant to Rhode Island General Law section 42-28-22.1, the retirement board established a trust to collect proceeds for the purpose of paying retirement benefits to participating members of the state police initially hired on or before July 1, 1987, or their beneficiaries.

The trust was established to reduce the amount of the unfunded liability attributable to the retirement benefits for members of the state police hired on or before July 1, 1987. The trust was funded with monies obtained from the Department of Justice's Equitable Sharing Program, resulting from a settlement in which $45 million of such settlement was allocated for use by the state police. Pursuant to Rhode Island General Law section 42-28-22.2, the State shall deposit contributions for the members of the state police initially hired on or before July 1, 1987 to be held in trust. The trust was established with a $15 million supplemental contribution (from funds available to the State from the Department of Justice's Equitable Sharing Program) that was deposited in fiscal 2017. Taking into account the initial supplemental contribution, as certified by the State's actuary, the unfunded actuarial liability will be amortized over an 18 year period. The State will make annual contributions into the trust for this funding period, or until the unfunded accrued liability is fully amortized. This trust is a closed plan because there are no longer any active members.

2. Plan Membership and Benefit Provisions (continued)

Plan members – the plan covers members of the state police hired on or before July 1, 1987. Prior to creating the trust, benefits for these members were intended to be funded on a pay-as-you-go basis.

Retirement eligibility and plan benefits – The plan generally provides retirement benefits equal to 50% of final salary after 20 years of service, members that retired after July 1, 1972 could earn an additional 3.0% of final salary times service in excess of 20 years through 25 years to a maximum of 65% of final salary. Such benefits are available to members after 20 years of service regardless of age.

***Cost of Living Adjustments* –** The Cost of Living Adjustment (COLA) has been suspended until the collective ERS, SPRBT and JRBT plans reach a funded status of 80%. The COLA provision will be reviewed in a four-year interval while the plans are less than 80% funded. When the collective funding level of a plan exceeds 80%, eligible retirees may receive a COLA annually effective on their date of retirement plus one month.

The COLA calculation is represented by the following formula: 50% of the COLA is calculated by taking the previous 5-year average investment return, less 5% (5-year return – 5.0%, with a max of 4%) and 50% calculated using the increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

The benefit adjustments are provided to all retirees entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect, and for all other retirees, the benefit adjustments shall commence upon the third anniversary of the date of retirement or the date on which the retiree reaches his or her Social Security retirement age, whichever is later. For members (and their beneficiaries) retiring after June 30, 2015, the annual benefit adjustment provided in any calendar year is equal to the lesser of either the member's retirement allowance or the first $27,901 (indexed as of January 1, 2022) of retirement allowance multiplied by the percentage resulting from the COLA calculation as outlined in the preceding paragraph. The retirement amount subject to the COLA calculation is indexed annually in the same percentage as the COLA determination and is run annually regardless of the collective funding status.

For members and/or beneficiaries of members who retired on or before June 30, 2015 the current indexed amount of $27,901 is replaced with $33,481 (indexed as of January 1, 2022) until the funded ratio of the ERS, SPRBT and JRBT, calculated by the system's actuary on an aggregate basis, exceeds eighty percent (80%). At such time, the benefit adjustments will then be provided on the lower amount (currently indexed at $27,901).

DEFINED CONTRIBUTION PLAN

The State of Rhode Island Defined Contribution Retirement Plan (the "Plan") is a defined contribution (money purchase) plan that operates under Section 401(a) of the Internal Revenue Code. The Plan was established under Rhode Island General Law section 36-10.3-2 and was placed under the management of the Retirement Board. The Retirement Board is the Plan administrator and Plan trustee. The law authorizes the State Investment Commission to select the appropriate third-party administrator for the Plan and to adopt Plan, trust, and/or custodial documents subject to certain guidelines outlined in the statute. The State Investment Commission is responsible for implementing the investment policy of the Plan and selecting the investment options available to members. TIAA-CREF serves as record keeper for the Plan and Plan assets are held by J.P. Morgan as investment custodian.

2. Plan Membership and Benefit Provisions (continued)

Plan members – The plan covers members of the defined benefit plan within the Employees' Retirement System of Rhode Island with less than 20 years of service as of June 30, 2012, excluding legislators, correction officers, judges, state police, and MERS general and police and fire employees who participate in Social Security. For covered employees, participation in the defined contribution plan is mandatory.

Plan vesting provisions – The total amount contributed by the member, including associated investment gains and losses, shall immediately vest in the member's account and is non-forfeitable. The total amount contributed by the employer, including associated investment gains and losses, vests with the member and is non-forfeitable upon completion of three (3) years of contributory service. Service credit under ERS or MERS prior to July 1, 2012 is credited to the member for vesting purposes.

Member accounts – Each member's account is credited with the member and employer's contribution and an allocation of the plan's earnings. Allocations are based on a relationship of the member's account balance in each investment fund to the total of all account balances in that fund. The retirement benefit to which a member is entitled is the benefit that can be provided from the member's account.

Forfeitures **–** Non-vested employer contributions are forfeited upon termination of employment. Such forfeitures can be used by employers to offset future remittances to the plan.

Contributions **–** The plan's benefits are funded by contributions from the participants and the employer, as specified in Rhode Island General Law 36-10.3-4 and 36-10.3-5.

Eligible state employees and teachers and MERS general employees that participate in Social Security contribute 5% of the member's compensation. Teachers and MERS general employees not covered by Social Security must contribute 7% of their compensation.

Employers contribute to these member's individual accounts an amount equal to 1% to 1.5% of the member's compensation depending upon years of service for those participating in Social Security. For eligible members who do not participate in Social Security, the employers contribute an amount equal to 3.0% to 3.5% depending upon years of service.

Investment options – Member and employer contributions may be invested in a variety of investment options broadly diversified with distinct risk and return characteristics. The investment options provide opportunities to diversify across the risk-return spectrum with a range of investment choices within varied asset classes.

The investment programs are managed by TIAA-CREF and have various investment strategies.

Retirement benefits – Benefits may be paid to a member after severance from employment, death, Plan termination, or upon a deemed severance from employment for participants performing qualified military service. At a minimum, retirement benefits must begin no later than April 1 of the calendar year following the year in which you attain age 70 ½ or terminate employment, if later. Members have the option to receive benefit payments in the form of a Single Life Annuity, Two Life Annuity, Lump Sum Benefit, or Installments. These payments are subject to any restrictions in the investment vehicles.

3. Summary of Significant Accounting Policies

These financial statements were prepared in accordance with accounting principles generally accepted in the United States of America as prescribed by the Governmental Accounting Standards Board (GASB). The Governmental Accounting Standards Board (GASB) is responsible for establishing generally accepted accounting principles for defined benefit and defined contribution plans established and administered by governmental entities.

Basis of Accounting - The financial statements of the System are prepared on the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded when incurred.

Cash and Cash Equivalents - Cash represents cash held in trust in a financial institution. Cash equivalents are highly liquid investments with a maturity of three months or less at the time of purchase.

Investments - Investment transactions are recorded on a trade date basis. Gains or losses on foreign currency exchange contracts are included in income consistent with changes in the underlying exchange rates. Dividend income is recorded on the ex-dividend date.

Method Used to Value Investments - Investments are recorded in the financial statements at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Short-term investments are generally carried at cost or amortized cost, which approximates fair value.

The fair value of fixed income securities and domestic and international equity securities is generally based on published market prices and quotations from national security exchanges and securities pricing services.

Commingled funds and collective unit trusts include institutional international equity index funds and an emerging markets debt fund. The fair value of these funds is based on the reported net asset value (NAV) based upon the fair value of the underlying securities or assets held in the fund.

Derivative investments (e.g., futures contracts and credit default and total return swaps) are valued at the settlement price established each day by the board of trade or exchange on which they are traded.

The System also trades in foreign exchange contracts to manage exposure to foreign currency risks. Such contracts are used to purchase and sell foreign currency at a guaranteed future price. The change in the estimated fair value of these contracts, which reflects current foreign exchange rates, is included in the determination of the fair value of the System's investments.

Other investments that are not traded on a national security exchange (primarily private equity, real estate, hedge funds, infrastructure investments, Crisis Protection Class – Trend Following, and emerging markets debt) are valued based on the reported Net Asset Value (NAV) by the fund manager or general partner. Publicly traded investments held by the funds or partnerships are valued based on quoted market prices. If not publicly traded, the fair value is determined by the general partner following U.S. generally accepted accounting principles. Financial Accounting Standards Board ASC Topic 820, *Fair Value Measurements and Disclosures,* requires the limited partnership general partners for these investment types to value non-publicly traded assets at current fair value, taking into consideration the financial performance of the issuer, cash flow analysis, recent sales prices, market comparable transactions, a new round of financing, a change in economic conditions, and other pertinent information.

3. Summary of Significant Accounting Policies (continued)

Hedge funds, private equity, real estate, infrastructure, crisis protection class – trend following investments, and emerging markets debt represented 7.2%, 19.7%, 6.3%, 3.2%, 4.7% and 1.9% respectively of the total reported fair value of ERSRI's pooled investment trust at June 30, 2022.

Investment expenses – Investment expenses include investment consultant fees, custodial fees, direct investment expenses paid to managers, and certain indirect expenses allocated by managers to fund or partnership investors. Certain Office of the General Treasurer expenses associated with oversight of the pooled investment trust are also allocated and included as investment expenses. When indirect investment expenses for certain types of investments (e.g., hedge funds, private equity, real estate, infrastructure, emerging markets debt, and crisis protection class), are not reported separately to System management and the investment custodian, additional information is obtained to allow reporting of the System's share of such indirect investment expenses on a gross fee basis.

Net investment income within the defined contribution plan is reported on a net-of-fees basis.

Contributions - Plan member contributions for the defined benefit plans are recognized in the period in which the wages, subject to required contributions, are earned for the performance of duties for covered employment. Employer contributions to each defined benefit plan are recognized when due and the employer has made a formal commitment to provide the contributions.

Plan member and employer contributions for the defined contribution plan are contributed to the member's individual account in the plan as a defined percentage of the member's compensation paid during the plan year ending June 30.

Benefits - Benefits and refunds are recognized when due and payable in accordance with the terms of each plan.

Prepaid Assets – These assets represent the amounts paid to a vendor pursuant to a contract to design, transition, and implement new line-of-business, general ledger accounting system, and payroll administration systems. Under a system development and operations contract, the vendor supplies and operates the system for the contract period. Consequently, no capital asset related to the new system is recognized or depreciated. Amounts paid before the system became operational have been accounted for as prepaid assets. The prepaid amounts are amortized ratably over the remaining contract period.

Management is considering the fiscal 2023 implementation effect of GASB Statement No. 96 - *Subscription-Based Information Technology Arrangements (SBITA)* on the System's cloud-based software subscriptions. A right-to-use asset and a corresponding liability is recognized for SBITA's.

Total Columns - Total columns on the financial statements are presented only to facilitate financial analysis. Data in these columns are not comparable to a consolidation. Inter-fund eliminations have not been made in the aggregation of this data.

Use of Estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingencies. These estimates are subject to a certain amount of uncertainty in the near term, which could result in changes in the values reported for those assets in the statements of fiduciary net position. Because of the inherent uncertainty in the valuation of privately held securities, the fair value may differ from the values that would have been used if a ready market for such securities existed, and the difference can be material. Estimates also affect the reported amounts of income/additions and expenses/deductions during the reporting period. Actual results could differ from these estimates.

4. Cash Deposits and Cash Equivalents

At June 30, 2022, the carrying amounts of the plans' cash deposits are listed below:

Cash Deposits	ERS/TSB	MERS	SPRBT	JRBT	RIJRFT	SPRFT	Total
Book Balance	$ 5,233,405	$ 1,046,647	$ 602,696	$ 30,920	$ 733,616	$ 38,462	$ 7,685,746
Bank Balance	$ 5,380,778	$ 1,071,313	$ 655,916	$ 30,920	$ 733,616	$ 46,216	$ 7,918,759

The bank and book balances represent the plans' deposits in short-term trust accounts, which include demand deposit accounts and interest-bearing, collateralized bank deposit accounts. The bank balances, include interest-bearing collateralized bank deposits and are either federally insured or collateralized (102%) with U.S. Treasury, agencies, and federal home loan bank letters of credit held by a third-party custodian.

In accordance with Rhode Island General Law Chapter 35-10.1, depository institutions holding deposits of the State, its agencies or governmental subdivisions of the State shall, at a minimum, insure or pledge eligible collateral equal to one hundred percent of time deposits with maturities greater than sixty days. Any of these institutions that do not meet minimum capital standards prescribed by federal regulators shall insure or pledge eligible collateral equal to one hundred percent of deposits, regardless of maturity. None of the System's deposits were required to be collateralized at June 30, 2022 (excluding the collateralized interest-bearing deposits). However, the State Investment Commission has adopted a collateralization requirement for institutions holding the State's deposits. Financial institutions are required to pledge collateral equal to 102% of the deposit amounts that are not insured by federal depository insurance unless FHLB letters of credit are used as collateral, in which case those are required at 100%.

The General Treasurer makes certain short-term investments on a daily basis. Rhode Island General Law Section 35-10-11 (b)(2)(iii) requires that all investments shall be made in securities as would be acquired by prudent persons of discretion and intelligence who are seeking a reasonable income and the preservation of capital.

5. Investments – Pooled Investment Trust

(a). General

The custodian bank holds assets of the System in a Pooled Investment Trust and each plan holds units in the trust. The number of units held by each plan is a function of each plans' respective contributions to, or withdrawals from, the trust.

Investment policy - The State Investment Commission (SIC) oversees all investments made by the State of Rhode Island, including those made for the System's Pooled Investment Trust. The establishment of the SIC, its legal authority and investment powers are outlined in Chapter 35-10 of the Rhode Island General Laws.

The SIC has adopted a Defined Benefit Investment Policy Statement which includes specific asset allocation targets and asset class policies. The most recent policy statement was adopted by the SIC on August 25, 2021 and may be amended by a majority vote of SIC members. The SIC's asset allocation policy seeks to achieve the assumed rate of return adopted by the System over the long-term while reducing risk through the prudent diversification of the portfolio across various asset classes.

5. Investments – Pooled Investment Trust (continued)

The System leverages the services of actuaries and consultants to provide guidance regarding actuarial matters, asset allocation, and investment policy development. The SIC manages the investment program pursuant to the investment policy, develops asset class guidelines, monitors and evaluates performance, and makes determinations regarding the retention of managers. Professional investment managers are selected by the SIC to manage portfolios in accordance with investment management agreements.

The following was the SIC's adopted asset allocation policy targets as of June 30, 2022:

Asset Class	Long-Term Target Asset Allocation
GROWTH	
Global Equity	**40.0%**
Private Growth	**15.0%**
subtotal	**55.0%**
INCOME	**12.0%**
STABILITY	
Crisis Protection Class	**10.0%**
Inflation Protection	**8.0%**
Volatility Protection	**15.0%**
subtotal	**33.0%**
Total	**100.0%**

Consistent with a target asset allocation model adopted by the State Investment Commission (SIC), the System directs its separate-account investment managers to maintain, within the mandate specified by the SIC, diversified portfolios by sector, credit rating and issuer using the prudent person standard, which is the standard of care employed solely in the interest of the participants and beneficiaries of the funds and for the exclusive purpose of providing benefits to participants and defraying reasonable expenses of administering the funds.

Specific manager performance objectives are outlined and generally stated in relation to a benchmark or relevant index. These guidelines also include prohibited investments, limitations on maximum exposure to a single industry or single issuer, a minimum number of holdings within the manager's portfolio and, for fixed income managers, minimum credit quality ratings and duration/maturity targets.

Investment expense is allocated to each plan based on the plan's units in the Pooled Investment Trust at the end of each month.

5. Investments – Pooled Investment Trust (continued)

The following table presents the fair value of investments by type that are held within the Pooled Investment Trust for the defined benefit plans at June 30, 2022:

Investment Type	June 30, 2022 Fair Value
Cash and Cash Equivalents:	
US Cash	$ 2,138,545
Non-US Cash	5,714,015
Commercial Paper	32,713,561
Repurchase Agreements	21,200,000
Short-Term Collective Investment Funds	177,123,856
US Government Securities	649,188,178
US Government Agency Securities	193,649,588
Collateralized Mortgage Obligations	41,748,003
Corporate Bonds	791,916,932
Term Loans	43,135,426
Emerging Markets Debt - Collective Unit Trust	190,364,769
Commingled Funds - International Equity	972,485,091
Domestic Equity Securities	2,215,860,980
International Equity Securities	392,465,938
Equity Options - Private LLC Investment	243,774,981
Private Equity	1,966,003,258
Real Estate	626,734,458
Hedge Funds	719,031,372
Crisis Protection Class - Trend Following - Limited partnerships	473,089,190
Infrastructure	321,465,005
Derivatives:	
Futures	(556,632)
Total Return Swap	(236,707)
Credit Default Swaps	(174,199)
Investments at Fair Value	10,078,835,608
Investment receivable	268,166,439
Investment payable	(377,804,552)
Total Pooled Investment Trust	$ 9,969,197,495

(b) Fair value hierarchy

The fair value hierarchy categorizes the inputs to valuation techniques used to measure fair value into three levels:

Level 1 inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date.

Level 2 inputs are other than quoted prices included within Level 1—that are observable for an asset or liability, either directly or indirectly.

Level 3 includes unobservable inputs for an asset or liability.

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs. If the fair value of an asset or a liability is measured using inputs from more than one level of the fair value hierarchy, the measurement is considered to be based on the lowest priority level input that is significant to the entire measurement.

5. Investments – Pooled Investment Trust (continued)

Investments and Derivative Instruments Measured at Fair Value

Investments at Fair Value	Fair Value June 30, 2022	Quoted Prices in Active Market for Identical Assets (level 1)	Significant Other Observable Inputs (level 2)	Significant Unobservable Inputs (level 3)
Equity Investments				
Global Equity	**2,608,326,918**	**2,605,448,479**	**2,781,618**	**96,821**
Fixed Income				
US Government Securities	649,188,178	649,188,178		
US Government Agency Securities	193,649,588	7,592,272	186,057,316	
Corporate Bonds	791,916,932	163	791,916,770	
Collateralized Mortgage Obligations	41,748,003		41,748,003	
Term Loans	43,135,426			43,135,426
	1,719,638,128	**656,780,612**	**1,019,722,089**	**43,135,426**
Derivative Investments				
Equity and Fixed Income Index Futures	(556,632)	(556,632)		
Other Derivatives	(410,906)		(410,906)	
	(967,538)	**(556,632)**	**(410,906)**	
Commercial Paper	**32,713,561**		**32,713,561**	
Total Investment at Fair Value Level	**$ 4,359,711,069**	**$ 3,261,672,460**	**$ 1,054,806,362**	**$ 43,232,247**

Investments Measured at Net Asset Value (NAV)	
Short-Term Collective Investment Funds	$ 177,123,856
Commingled Funds - International Equity	972,485,091
Hedge Funds	719,031,372
Private Equity	1,966,003,258
Real Estate	626,734,458
Infrastructure	321,465,005
Emerging Markets Debt Collective Unit Trust	190,364,769
Equity Options - Private LLC Investment	243,774,981
Crisis Protection Class - Trend Following	473,089,190
	5,690,071,981
Cash and Cash Equivalents	
US Cash	2,138,545
Non US Cash	5,714,015
Repurchase Agreements	21,200,000
	29,052,560
Net Investment Payable	**(109,638,115)**
Total Pooled Investment Trust	**$ 9,969,197,495**

5. Investments – Pooled Investment Trust (continued)

Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Term loans classified in Level 3 are valued using consensus pricing.

Derivative instruments classified in Level 2 of the fair value hierarchy are valued using a market approach that considers benchmark interest rates and foreign exchange rates.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on the following table and related notes.

	Fair Value	Unfunded Commitments	Redemption (if currently eligible)	Redemption Notice Period
Short-Term Collective Investment Funds (1)	$ 177,123,856	-	daily	none
Commingled Funds - International Equity (2)	972,485,091	-	daily	see note below
Hedge Funds (3)	719,031,372	-	see note below	see note below
Private Equity (4)	1,966,003,258	$ 1,095,268,393	see note below	see note below
Real Estate (5)	626,734,458	162,482,736	see note below	see note below
Infrastructure Investments (6)	321,465,005	199,653,941	see note below	see note below
Crisis Protection Class - Trend Following (7)	473,089,190	-	see note below	see note below
Emerging Markets Debt - Collective Unit Trust (8)	190,364,769	-	see note below	see note below
Equity Options - Private LLC Investment (9)	243,774,981	-	see note below	see note below
	$ 5,690,071,980	$ 1,457,405,070		

(1) ***Short-Term Collective Investment Funds*** - these investments are used as temporary cash management investments for amounts pending investment or for amounts liquidated from investments pending distribution for pension benefits. The fair value of these investments reflect the net asset value reported by the fund administrator which is a stable $1 per unit. The underlying investments, which are short-term cash equivalent type investments, are generally carried at amortized cost which approximates fair value. There are no withdrawal limitations for the Short-Term Collective Investment Funds.

(2) ***Commingled funds*** – consist of three international equity index funds which are intended to replicate the performance of a specific index; e.g., MSCI EAFE. The fair values of the investments in this type have been determined using the NAV per share of the investments as reported by the commingled fund manager which reflects the exchange pricing of the equity holdings within each fund. The international equity commingled funds may be redeemed daily.

(3) ***Hedge funds*** – this portfolio is comprised of 9 limited partnerships divided into two sub-categories: global equity and absolute return. Global equity funds are designed to benefit from the stock market with considerably less risk. They own stakes in companies they expect to outperform and also sell short stocks that they expect to underperform. Absolute return hedge funds employ strategies that seek to generate long-term returns and mitigate risk, regardless of broader market moves. The funds invest across asset classes, including government bonds, other fixed income securities, equity indexes, commodities, and currencies.

The fair values of the investments in this type have been determined using the NAV per share of the investments as reported by the general partner at June 30, 2022. Of the underlying holdings within the hedge funds approximately 63% were valued based on Tier 1 inputs (unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted investments).

5. Investments – Pooled Investment Trust (continued)

The system's investments in hedge fund assets are available for redemption on a monthly, quarterly, semi-annual or annual basis, and are subject to notice periods which vary by fund and range from 30 days to 75 days. Some funds limit redemptions to 25% of invested capital on any one redemption date.

(4) ***Private equity*** – these 126 limited partnership funds provide the portfolio exposure to private companies through equity and/or debt investments. Private equity fund managers invest in private companies with the goal of enhancing their value over the long-term.

The fair values of the investments in this type have been determined using the NAV per share of the investments as reported by the general partner at June 30, 2022.

Private equity – the investments cannot be redeemed. The nature of these investments provides for distributions through the liquidation of the underlying assets or net operating cash flows.

(5) ***Real Estate –*** these 20 limited partnership investments are comprised of two different private real estate equity components, Core and Non-Core, which generally refer to the relative levels of risk in the underlying assets. Core investments include existing, substantially leased, income-producing properties located principally in economically diversified metropolitan areas. Non-Core investments represent those properties and/or investment strategies that require specialized acquisition and management expertise and skill to mitigate the business and leasing risks that may be associated with individual investments. Non-Core investments, which may be referred to as Value Added and Opportunistic investments, are expected to be held for shorter periods, have greater volatility compared to Core investments, and as such, are expected to provide yields higher than those associated with Core investments.

These funds acquire, manage and sell physical properties, including office, retail, apartment, and industrial buildings as well as more niche property types, such as student housing, self-storage and hotels. The primary goals of this asset class are to provide current income, risk-adjusted total returns, and diversification.

The fair values of the investments in this type have been determined using the NAV per share of the investments as reported by the general partner at June 30, 2022.

With the exception of four core open-end funds which allow for quarterly redemptions (with a notice period of between 15 to 90 days), the investments cannot be redeemed. The nature of these investments provides for distributions through the liquidation of the underlying assets or net operating cash flows.

(6) ***Infrastructure*** – These 12 funds provide inflation-protection and current income to the portfolio through investments in facilities and services required for an economy to function including electricity production and distribution, pipelines, sewers and waste management, airports, roads, bridges, ports, railroads, telephone and cable networks, and hospitals. The fair values of the investments in this type have been determined using the NAV per share of the investments as reported by the general partner at June 30, 2022.

With the exception of two open-end core fund which allows for quarterly liquidity (with a notice period of between 45 to 60 days), the investments cannot be redeemed. The nature of these investments provides for distributions through the liquidation of the underlying assets or net operating cash flows.

(5) Investments – Pooled Investment Trust (continued)

(7) ***Crisis Protection Class – Trend Following –*** These three funds were created as limited liability companies with the Employees' Retirement System of the State of Rhode Island as the sole member. The investment managers' principal investment objectives for the companies include:

- providing diversified exposure to market trends across asset classes, geographies and time horizons to generate sizable profits during the periods when growth-risk exposed assets decline significantly;
- generating significant medium-term capital growth independent of overall movements in traditional stock and bond markets within a rigorous risk management framework; and
- outperforming the Credit Suisse Liquid Alternative Beta Managed Futures Index (CLABT18 Index) over a 5-year period.

The fair values of the investments in this type have been determined using the NAV per share of the investments as reported by the general partner at June 30, 2022. As the Employees' Retirement System of the State of Rhode Island is the sole member, the limited liability company could be liquidated at its option. The nature of these investments provides for distributions through the liquidation of the underlying assets or net operating cash flows.

(8) ***Emerging Markets Debt – Collective Unit Trust –*** This collective unit trust seeks to generate attractive returns relative to an emerging markets debt blended benchmark. The strategy seeks to take advantage of investment opportunities across emerging markets fixed income spectrum, including hard and local currency denominated sovereign, quasi sovereign and corporate debt, and their derivatives. Currencies are used both to manage risk and enhance return.

The fair value of the collective unit trust has been determined using the NAV per share of the investments as reported by the manager of the collective trust at June 30, 2022.

This investment includes monthly liquidity provisions (first business day of the month) with notice required by the 22nd of the prior month.

(9) ***Equity Options – Private LLC Investment*** – The fund seeks to achieve its goal primarily through a strategy of writing exchange-traded put options on the S&P 500® Index. These options are fully collateralized by short duration U.S. Treasury securities. The advisor attempts to generate returns through the receipt of option premiums from selling puts, as well as through investments in short duration fixed income instruments, which collectively are intended to reduce volatility relative to what it would be if the fund held the underlying equity index on which the options are written.

The fair value of the equity options – private LLC investment has been determined using the NAV per share of the investments as reported by the general partner at June 30, 2022. The underlying investments at June 30, 2022, which consist of equity options and fixed income investments were publicly traded.

This investment includes monthly liquidity provisions with 7 business days' notice.

5. Investments – Pooled Investment Trust (continued)

(c) Rate of Return

For the year ended June 30, 2022, the annual money-weighted returns on investments within each of the plans, net of investment expense, are shown in the following table. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

	ERS	TSB	MERS	SPRBT	JRBT	RIJRFT	SPRFT
Money-weighted rate of return – year ended June 30, 2022	-2.72%	-2.66%	-0.186%	-2.93%	-2.95%	8.96%	-0.86%

(d) Interest Rate Risk

Interest rate risk is the possibility that the value of a fixed income security will decline due to changes in market interest rates. Due to its significant holdings of fixed income securities, the System manages its investment exposure to interest rate risk by comparing its fixed income and cash managers' portfolio-level and security-level interest rate sensitivities against a predetermined benchmark index based on that manager's mandate. In general, the System uses duration (in years) to measure interest rate sensitivity. However, for its Liquid Credit managers, the System uses effective duration, which takes into effect the embedded optionality, to measure the sensitivity of its investments to changes in interest rates. In some cases, the System also sets absolute restrictions with respect to effective duration or maturity for individual securities or portfolios for manager portfolios. The interest rate risk policies currently utilized by the System vary by asset class which include Investment Grade Fixed Income, Liquid Credit, Long Duration Treasuries, Inflation-Linked Bonds, CPC Enhanced Cash Portfolio, and Strategic Cash.

The fixed income indices currently used by the System are:

- ICE BofA ML US HY Index
- JP Morgan CLOIE BB Index
- Barclays Long Duration US Treasury Index
- ICE BofA ML US Treasury Notes 0-1 Year
- Emerging Market Debt Custom BM: 50% JPM EMBI Global Diversified Index + 50% JPM GBI-EM Global Diversified Index
- Bloomberg Barclays US Corporate Bond Index
- Bloomberg Barclays Securitized MBS/ABS/CMBS Index

At June 30, 2022, no fixed income manager was outside of their policy guidelines.

The following table shows the System's fixed income investments by type, fair value and the effective duration at June 30, 2022:

Investment Type:	Fair Value	Effective Duration
US Government Agency Securities	$ 193,649,588	8.26
US Government Securities	649,188,178	14.28
Collateralized Mortgage Obligations	41,748,003	3.22
Corporate Bonds	791,916,932	4.71
Term Loans	43,135,426	1.23
Emerging Market Debt	190,364,769	5.87
Total Fixed Income	$ 1,910,002,897	8.33

5. Investments – Pooled Investment Trust (continued)

The System held $177 million in short-term collective investment funds at June 30, 2022. The cash-equivalent type investments held in those funds had a weighted average maturity of 10 days at June 30, 2022. The fund, by policy, holds only high-grade, highly liquid cash equivalent-type investments.

Repurchase agreements are secured with collateral held at a custodian bank. The System enters into repurchase agreements to earn interest on short-term funds. The System's repurchase agreements outstanding at June 30, 2022 had maturities of one to two days.

The System's investment in commercial paper totaling $32,713,561 at June 30, 2022 had maturities ranging from 5 to 70 days.

The System invests in various mortgage-backed securities, such as collateralized mortgage obligations (CMO), interest-only and principal-only strips. They are reported in U.S. Government Agency Securities and Collateralized Mortgage Obligations in the table above. CMO's are bonds that are collateralized by whole loan mortgages, mortgage pass-through securities or stripped mortgage-backed securities. Income is derived from payments and prepayments of principal and interest generated from collateral mortgages. Cash flows are distributed to different investment classes or tranches in accordance with the CMO's established payment order. Some CMO tranches have more stable cash flows relative to changes in interest rates while others are significantly sensitive to interest rate fluctuations.

The System may invest in interest-only and principal-only strips in part to hedge against a rise in interest rates. Interest-only strips are based on cash flows from interest payments on underlying mortgages. Therefore, they are sensitive to pre-payments by mortgagees, which may result from a decline in interest rates. Principal-only strips receive principal cash flows from the underlying mortgages. In periods of rising interest rates, homeowners tend to make fewer mortgage prepayments.

(e) Credit Risk

Credit risk is the possibility of a loss due to the failure of a counterparty to repay a loan or meet another contractual obligation. The System may be exposed to credit risk with respect to its fixed income investments. The System manages its credit risk by setting credit rating criteria to govern the investment activities of its fixed income managers at the portfolio and security level. Ratings criteria may be expressed on a relative basis against predetermined benchmark index or on an absolute basis based on that manager's mandate. If a security is not rated by any Rating Agency, the internal rating assigned by the investment manager or an affiliate (Internal Rating) will be used. The credit risk policies currently utilized by the System vary by asset class and reflect the manager's strategy and the System's overall asset allocation targets and related objectives.

The System manages exposure to credit risk generally by instructing fixed income managers to adhere to an overall target weighted average credit quality for their portfolios and by establishing limits on the percentage of the portfolios that are invested in non-investment grade securities.

5. Investments – Pooled Investment Trust (continued)

The System's exposure to credit risk as of June 30, 2022 is as follows:

Moody's Issue Quality Rating	U.S. Government Agency	CMO	Corporate Bonds	Term Loans	Grand Total
A1	$ -	$ -	$ 25,014,668	$ -	$ 25,014,668
A2	-	236,359	40,899,726	-	41,136,084
A3	-	393,413	29,813,766	-	30,207,179
Aa1	-	1,060,491	5,849,672	-	6,910,164
Aa2	-	4,432,360	9,420,326	-	13,852,686
Aa3	-	875,666	7,678,693	-	8,554,359
Aaa	170,657,998	15,048,385	33,778,369	-	219,484,752
B1	-	-	26,111,916	12,402,755	38,514,671
B2	-	-	26,593,296	5,299,023	31,892,319
B3	-	-	22,345,626	8,744,129	31,089,755
Ba1	-	247,185	40,453,740	8,994,335	49,695,260
Ba2	-	-	25,875,228	223,049	26,098,276
Ba3	-	-	49,451,912	5,923,753	55,375,665
Baa1	-	-	48,636,296	-	48,636,296
Baa2	-	-	70,026,622	-	70,026,622
Baa3	-	-	90,624,357	-	90,624,357
C	-	-	7,750	-	7,750
Caa1	-	-	12,930,836	-	12,930,836
Caa2	-	-	6,039,439	-	6,039,439
Caa3	-	-	837,820	-	837,820
NR	22,991,590	19,454,144	219,526,875	1,488,593	263,461,202
WR	-	-	-	59,789	59,789
Grand Total	**$ 193,649,588**	**$ 41,748,003**	**$ 791,916,932**	**$ 43,135,426**	**$ 1,070,449,950**

Ratings provided by Moody's Investors Service

An emerging market debt portfolio totaling $190,364,769 at June 30, 2022 and held within a collective unit trust had an overall average credit quality rating of Baa1 (Moody's). Investments in commercial paper totaling $32,713,561 at June 30, 2022 were rated P1 (Moody's).

(f) Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of investments in a single issuer. There is no single issuer exposure within the System's pooled investment trust that comprises 5% of the overall portfolio.

(g) Custodial Credit Risk

For an investment, custodial credit risk is the risk that, in the event of the failure of a counterparty, the System will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. At June 30, 2022, all securities were registered in the name of the System (or in the nominee name of its custodial agent) and were held in the possession of the System's custodial bank, Bank of New York Mellon.

(h) Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. Portfolios are diversified to limit foreign currency and security risk. The System may enter into foreign currency exchange contracts to minimize the short-term impact of foreign currency fluctuations on foreign investments. The System's exposure to foreign currency risk at June 30, 2022, is detailed in the following table. In addition to the foreign currency exposure highlighted in the following table, certain hedge fund investments may have foreign currency exposure.

5. Investments – Pooled Investment Trust (continued)

Foreign Currency Risk

Currency	Commingled Funds	Equities	Emerging Markets Debt	Private Equity	Cash/Equivalents and Derivatives	Futures	Corporate Bonds	Total
Australian Dollar	$ 39,003,831	$ 14,978,234	$ (1,018,620)	$ -	$ 97,053	$ (3,354)	$ -	$ 53,057,144
Brazilian Real	19,898,618	-	9,638,870	-	-	-	-	29,537,487
Canadian Dollar	66,002,793	44,655,407	(960,353)	538,461	601,364	(23,951)	-	110,813,721
Chilean Peso	1,970,498	-	1,832,435	-	-	-	-	3,802,934
Chinese Yuan	13,651,652	-	9,467,078	-	-	-	-	23,118,730
Colombian Peso	665,059	-	4,508,256	-	-	-	-	5,173,315
Czech Republic Koruna	740,762	-	4,954,940	-	-	-	-	5,695,701
Danish Krone	13,462,391	24,146,234		-	106,466	-	-	37,715,091
Egyptian Pound	330,448		484,734	-	-	-	-	815,182
Euro Currency	153,294,054	105,093,464	(150,714)	131,388,479	1,349,952	(24,082)	7,020,003	397,971,156
Hong Kong Dollar	121,080,172	9,159,848		-	562,502	(2,102)	-	130,800,420
Hungarian Forint	694,001	-	3,420,842	-	-	-	-	4,114,843
Indian Rupee	52,179,106	-		-	-	-	-	52,179,106
Indonesia Rupiah	7,205,410	-	9,232,507	-	-	-	-	16,437,917
Israeli Shekel	2,443,322	5,123,843		-	316	-	-	7,567,481
Japanese Yen	111,210,037	75,732,077		-	1,314,749	11,234	-	188,268,097
Kuwaiti Dinar	3,265,000	-		-	-	-	-	3,265,000
Malaysian Ringgit	5,896,320	-	9,294,562	-	-	-	-	15,190,882
Mexican Peso	8,642,288	-	8,958,847	-	-	-	-	17,601,135
New Taiwan Dollar	57,803,293	-		-	-	-	-	57,803,293
New Zealand Dollar	873,507	5,124,591	(976,717)	-	87,149	-	-	5,108,529
Norwegian Krone	3,934,932	816,905		-	15,156	-	-	4,766,994
Peruvian Nouveau Sol	6	-	2,848,129	-	-	-	-	2,848,134
Philippine Peso	2,849,795	-		-	-	-	-	2,849,795
Polish Zloty	2,349,648	-	7,277,962	-	-	-	-	9,627,610
Qatari Real	4,031,338	-		-	-	-	-	4,031,338
Romanian Ieu		-	2,882,228	-	-	-	-	2,882,228
Russian Ruble	91,181	-	1,090,630	-	-	-	-	1,181,812
Saudi Riyal	16,917,067	-	-	-	-	-	-	16,917,067
Singapore Dollar	6,303,069	4,660,142	-	-	205,191	-	-	11,168,403
Swedish Krona	16,916,654	7,174,679	-	-	303,032	(4,149)	-	24,390,215
Swiss Franc	50,955,680	43,743,302	-	-	265,052	(1,459)	-	94,962,575
South African Rand	14,097,610	-	8,835,378	-	1	-	-	22,932,989
South Korean Won	44,669,278	-	-	-	-	-	-	44,669,278
Thailand Baht	7,485,792	-	9,011,930	-	-	-	-	16,497,722
Turkish Lira	1,067,927	-	-	-	-	-	-	1,067,927
United Arab Emirates Dirham	4,907,480		-	-	-	-	-	4,907,480
United Kingdom Pound Sterling	79,001,611	52,057,212	-	-	806,032	(522)	-	131,864,333
Total	$ 935,891,630	$ 392,465,938	$ 90,632,922	$ 131,926,940	$ 5,714,015	$ (48,385)	$ 7,020,003	$ 1,563,603,063
United States	36,593,461	-	99,731,847	1,834,076,318	-	(508,247)	784,896,929	
Grand Total	$ 972,485,091	$ 392,465,938	$ 190,364,769	$ 1,966,003,258	$ 5,714,015	$ (556,632)	$ 791,916,932	

5. Investments – Pooled Investment Trust (continued)

(i) Derivatives and Other Similar Investments

Certain of the System's investment managers are allowed to invest in derivative type transactions consistent with the terms and limitations governing their investment objective and related contract specifications. Derivatives and other similar investments are financial contracts whose value depends on one or more underlying assets, reference rates, or financial indices.

The System's derivative investments include forward foreign currency transactions, futures contracts, options, rights, and warrants. The System enters into these transactions to enhance performance, rebalance the portfolio consistent with overall asset allocation targets, gain or reduce exposure to a specific market, or mitigate specific risks.

Forward foreign currency contracts – The System enters into foreign currency exchange contracts to minimize the short-term impact of foreign currency fluctuations on foreign investments. A currency forward is a contractual agreement to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. If not offset by a corresponding position with the opposite currency exposure, these contracts involve risk in excess of the amount reflected in the System's Statements of Fiduciary Net Position. The face or contract amount in U.S. dollars reflects the total exposure the System has in currency contracts. The U.S. dollar value of forward foreign currency contracts is determined using forward currency exchange rates supplied by a quotation service. Losses may arise due to changes in the value of the foreign currency or if the counterparty does not perform under the contract.

Futures contracts – The System uses futures to manage its exposure to the domestic and international equity, money market, and bond markets and the fluctuations in interest rates and currency values. Futures are also used to obtain target market exposures in a cost-effective manner and to narrow the gap between the System's actual cash exposures and the target policy exposures. Using futures contracts in this fashion is designed to reduce (or hedge) the risk of the actual plan portfolio deviating from the policy portfolio more efficiently than by using cash securities. The program is only used to manage intended exposures and asset allocation rebalancing.

Buying futures tends to increase the System's exposure to the underlying instrument. Selling futures tends to decrease the System's exposure to the underlying instrument or hedge other System investments. Losses may arise due to movements in the underlying or reference markets.

Total Return Swaps – A credit manager may use total return swaps as an efficient means to gain exposure to an index or market sector. A total return swap allows for the exchange of the rate of return on an index, such as the Barclays Aggregate Index, for a variable interest rate. A total return swap may offer opportunity to outperform due to active management of the liquid portfolio backing the exposure.

Credit Default Swaps – A credit manager may use credit default swaps in the portfolio to either obtain exposure to the high yield market efficiently (i.e. by selling protection) at a similar or better price than what can be obtained in cash bonds, or to hedge the credit risk of the portfolio (i.e. buying protection).

Through commingled funds, the System also indirectly holds derivative type instruments, primarily equity index futures.

5. Investments – Pooled Investment Trust (continued)

Additionally, the System is an investor in a private investment fund that writes collateralized put options on both U.S. indices, including the S&P 500® Index and the Russell 2000® Index, and exchange traded funds. The advisor attempts to generate returns through the receipt of option premiums from selling puts, as well as through investments in fixed income instruments, which collectively are intended to reduce volatility relative to what it would be if the fund held the underlying equity index on which the options are written.

The System invests in mortgage-backed securities, which are included in the categories described as collateralized mortgage obligations and U.S. Government Agency Securities. These securities are based on the cash flows from interest and principal payments by the underlying mortgages. As a result, they are sensitive to prepayments by mortgagees, which are likely in declining interest rate environments, thereby reducing the value of these securities.

Additional information regarding interest rate risks for these investments is included in Note 5(d) *Interest Rate Risk*.

The System may sell a security in anticipation of a decline in the fair value of that security or to lessen the portfolio allocation of an asset class. Short sales may increase the risk of loss to the System when the price of a security underlying the short sale increases and the System is obligated to deliver the security in order to cover the position.

The following summarize the System's exposure to specific derivative investments at June 30, 2022.

Investment Derivative Instruments	Change in fair value included in investment income	Fair Value at June 30, 2021	Fair Value at June 30, 2022	Notional Amount
Fixed Income futures - long	$ (1,815,874)	$ 2,259,822	$ 443,948	$ 29,779,797
Fixed Income Futures - short	(1,013,806)	-	(1,013,806)	48,959,781
Equity index futures - long	(163,810)	376,970	213,160	49,710,709
Equity index futures - short	(95,474)	(104,459)	(199,933)	13,132,563
Credit default swaps	(4,468,903)	4,294,704	(174,199)	
Total return swaps	(236,707)	-	$ (236,707)	
Total	$ (7,794,575)	$ 6,827,037	$ (967,538)	

Foreign Currency Forward Contracts Payable	
Pending (liability)	$ (32,983)
Pending receivable (asset)	197,518
Total	$ 164,535

The System is exposed to counterparty risk on foreign currency contracts that are in asset positions. The aggregate fair value of derivative instruments in asset positions at June 30, 2022 was $164,535. This represents the maximum loss that would be recognized if all counterparties failed to perform as contracted. Risk is mitigated by using a continuous linked settlement process.

The System executes (through its investment managers) derivative instruments with various counterparties. The credit ratings (Moody's) of four counterparties were Aa2 (two counterparties), and Aa1 and Aa3 for the remaining two counterparties.

6. Other Investments – Defined Contribution Plan

The State Investment Commission selected various investment options for defined contribution plan participants with the overall objective of offering low-cost, strategic, and long-term oriented investment products. Plan participants can choose one or more of the various options and can change options at any time. Plan participants who do not elect a specific option default to a target date retirement fund consistent with their anticipated Social Security retirement eligibility date.

Investment Type		Fair Value	% of Total	Duration (years)
Annuities				
TIAA Stable Value	$	26,926,530	1.83%	
Total	**$**	**26,926,530**	**1.83%**	
Fixed Income Funds				
Pimco Real Return Institutional Class		10,419,979	0.71%	6.65
State Street US Bd Index Sec XIV		10,034,457	0.68%	6.48
Total	**$**	**20,454,437**	**1.39%**	
Target Retirement Funds				
Vanguard Target Retirement 2015 Trust Plus		37,476,736	2.55%	
Vanguard Target Retirement 2020 Trust Plus		111,925,095	7.61%	
Vanguard Target Retirement 2025 Trust Plus		172,104,391	11.71%	
Vanguard Target Retirement 2030 Trust Plus		203,898,370	13.87%	
Vanguard Target Retirement 2035 Trust Plus		241,156,489	16.40%	
Vanguard Target Retirement 2040 Trust Plus		198,941,646	13.53%	
Vanguard Target Retirement 2045 Trust Plus		156,867,556	10.67%	
Vanguard Target Retirement 2050 Trust Plus		99,976,093	6.80%	
Vanguard Target Retirement 2055 Trust Plus		50,322,307	3.42%	
Vanguard Target Retirement 2060 Trust Plus		17,621,488	1.20%	
Vanguard Target Retirement 2065 Trust Plus		2,292,875	0.16%	
Vanguard Target Retirement Income Trust Plus		10,268,710	0.70%	
Total	**$**	**1,302,851,754**	**88.62%**	
Equity Funds				
Vanguard FTSE Social Index Instl		9,809,345	0.67%	
State Street SP 500 Index Sec II		54,983,258	3.74%	
State Street Sm Mid Index Sec II		34,356,929	2.34%	
State Street Cp Eq ExUS Index II		20,813,328	1.42%	
Total	**$**	**119,962,860**	**8.16%**	
Total	**$**	**1,470,195,581**	**100.00%**	

The majority (98%) of investments held by participants in the defined contribution plan are target date retirement funds, equity or fixed income funds. The target retirement date funds provide for diversified portfolios of equities and bonds that become progressively more conservative as the fund's associated target retirement date approaches. Equity index funds seek to replicate the price and yield performance of a particular index.

6. Other Investments – Defined Contribution Plan (continued)

The target retirement date and equity and fixed income funds are priced daily based on the traded prices of the underlying securities held within the funds. There are no withdrawal limitations for these funds. These funds are classified as Level 1 investments (quoted prices in active markets for identical assets) within the fair value hierarchy. Annuities are reported at contract value, which approximates fair value. Annuities held by participants within the defined contribution plan are classified as Level 3 investments (significant unobservable inputs) within the fair value hierarchy.

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the System will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. At June 30, 2022, all non-annuity assets, including mutual funds, that are traded and held in retirement plans by TIAA were held at TIAA, FSB (formerly TIAA-CREF Trust Company, FSB) as custodian/trustee.

The majority of the defined contribution plan investment options are funds that invest in diversified portfolios of securities including equity and fixed-income investments. For investment options that are solely fixed income, weighted-average maturity or duration have been disclosed as a measure of interest rate risk.

Fixed income funds are subject to interest rate, inflation and credit risks. Target-date retirement funds share the risks associated with the types of securities held by each of the underlying funds in which they invest including equity and fixed income funds. Funds may have exposure to foreign currency risk through investment in non-US denominated securities.

7. Contributions

Contribution requirements for plan members and employers are established pursuant to Rhode Island General Laws. With the exception of the RIJRFT plan, employers are required to contribute at an actuarially determined rate or a fixed dollar amount for the defined benefit plans. Employer contributions for the defined contribution plan are prescribed by statute. Plan member contributions for the defined benefit and defined contribution plans are fixed by statute. Member and employer contribution rates are subject to amendment by the General Assembly.

(a). Funding Policy

The funding policies, as set forth in Rhode Island General Law, Sections 36-10-2 and 45-21-42 provide for actuarially determined periodic contributions to the plans. The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial liability. The valuation is prepared on the projected benefit basis, under which the present value, at the assumed rate of return (currently 7.0 percent for all plans except the RIJRFT which utilizes a 1.92% assumed rate of return), of each participant's expected benefit payable at retirement or death is determined, based on age, service, gender and compensation.

The employer contributions required to support the benefits of the Plan are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the rate of contribution which, if applied to the compensation of each individual member during the entire period of anticipated covered service, would be required to meet the cost of all benefits payable on his behalf. This method is commonly referred to as the Individual Entry Age Actuarial Cost Method.

7. Contributions (continued)

The unfunded actuarial accrued liability (UAAL) is amortized as a level percent of payroll over a closed period. For underfunded plans, the period is 25 years as measured from June 30, 2010, or 21 years as of the current valuation date for any existing UAAL. Beginning with the June 30, 2014 actuarial valuation, new experience gains and losses for underfunded plans are amortized over individual closed periods of 20 years using the process of "laddering".

Overfunded plans will have an amortization rate calculated using a single base amortized over an open period of 20 years.

(b). Contribution rates

Employer contribution rates for fiscal 2022 for all defined benefit plans were developed based on actuarial valuations performed as of June 30, 2019. Employee contribution rates are statutorily determined.

Rhode Island Judicial Retirement Fund Trust plan is not currently advance funded. Employees make contributions to the plan; however, there are no employer contributions. This plan is for a closed group of individuals and the amortization payment has been calculated based on level-dollar amortization over 17 years from June 30, 2013.

State of Rhode Island State Police Retirement Fund Trust is a closed group of individuals and the annual contributions of $16,387,092 into the Trust have been calculated based on a level-dollar amortization over 18 years from June 30, 2016.

The table below displays the defined benefit plan contribution rates for the year ended June 30, 2022:

Plan	Employee	Employer
ERS		
State Employees	3.75% Members with more than 20 yrs of service at July 1, 2012 – 11%	28.01%
Teachers (note 1)		
LEA funded	3.75% Members with more than 20 yrs of service at July 1, 2012 – 11%	14.78%
State funded		10.94%
TSB	1% of the member's annual salary up to but not exceeding $11,500	1% of the member's annual salary up to but not exceeding $11,500
MERS		
General Employees	1.00% (additional 1% with a cost-of-living adjustment)	69 Municipalities, housing authorities, water and sewer districts contributed various actuarially determined rates.
Public Safety	9.00% (additional 1% with a cost-of-living adjustment)	53 Municipal police and fire departments contributed various actuarially determined rates.
SPRBT	8.75%	19.24%
JRBT	12.00% (8.75% supreme court judges)	21.82%
RIJRFT	12.00% (8.75% supreme court judges)	$1,190,045 (Note 2)
SPRFT	N/A	$16,387,092

Note 1 - When teachers' salaries are charged to federal programs 100% of the employer contribution rate is reimbursed through the federal program without a state funded portion.
Note 2 – The State of Rhode Island is not currently funding this plan on an advance funding basis – full actuarially determined employer contributions have not been made to the plan.

7. Contributions (continued)

The table below displays the defined contribution plan contribution rates for the year ended June 30, 2022:

Plan	Employee	Employer
Defined Contribution Plan	Eligible state employees, teachers, and MERS general employees participating in social security – 5%	1% to 1.5% based on years of service
	Teachers and MERS general employees not covered by social security – 7%	3% to 3.5% based on years of service
	MERS police and fire employees not covered by social security – 3%	3%

Effective July 1, 2015, members of the defined contribution plan who had 20 or more years of service as of July 1, 2012, remained as plan participants but no longer contributed to the plan (both employee and employer contributions).

(c). Contributions from Non-employer Contributing Entity

Within the ERS plan, the State of Rhode Island, as a non-employer contributing entity, makes a contribution for teachers employed by local educational agencies. This is considered a special funding situation wherein the State, by statute, has assumed responsibility to fund approximately 40% of the annual required employer contribution for teachers.

(d). Supplemental Contributions

The General Laws (Section 36-10-2(e) 1 and 2) also require, in addition to the contributions provided for by the funding policy, for each fiscal year in which the actuarially determined state contribution rate for state employees and teachers, including state contributions to the defined contribution plan, is lower than that for the prior fiscal year, the governor shall include an appropriation to that system equivalent to twenty percent (20%) of the rate reduction to be applied to the actuarial accrued liability. The amounts to be appropriated shall be included in the annual appropriation bill and shall be paid by the general treasurer into the retirement system. The retirement system's actuary shall not adjust the computation of the annual required contribution for the year in which supplemental contributions are received; such contributions once made may be treated as reducing the actuarial liability remaining for amortization in the next following actuarial valuation to be performed. For fiscal 2022, there were no monies contributed to the System in accordance with this provision of the General Laws.

The Retirement Security Act provides for additional contributions to the System based on 5.5% of the value of contracts where the services performed by the contractor were previously performed by state employees. A supplemental contribution of $107,767 was paid to the System pursuant to Section 42-149-3.1 of the General Laws.

Article 7 of the Fiscal Year 2022 Enacted Budget included the advance payment of pension deferrals from 1991 and 1992 in the amount of $61,780,491. This amount was recognized as a voluntary contribution from the State that paid off the amortization bases created as result of the 1990/1991 and 1991/1992 pension deferrals.

7. Contributions (continued)

(e). New Employer Contributions

During fiscal 2022, one new unit was established within the MERS plan. Upon joining MERS, that unit made an initial contribution of $882,458 which is reflected separately from other required actuarially determined employer contributions on the accompanying financial statements.

Additionally, several West Warwick units were established within the MERS plan. Those units made an initial contribution of $50,848,800 which is also reflected separately from other actuarially determined employer contributions on the accompanying financial statements.

8. Net Pension Liability (Asset) of the Participating Employers

The components of the net pension liability of the employers participating in the various plans of the System at June 30, 2022 were as follows:

Plan	Total Pension Liability	Plan Fiduciary Net Position	Employers' Net Pension Liability (Asset)	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
ERS				
State Employees	$ 4,884,260,227	$ 2,911,444,771	$ 1,972,815,456	59.6%
Teacher	7,119,287,066	4,418,568,123	2,700,718,943	62.1%
SPRBT	210,670,703	190,522,713	20,147,990	90.4%
JRBT	96,802,758	97,841,373	(1,038,615)	101.1%
RIJRFT	19,328,980	1,425,240	17,903,740	7.4%
SPRFT	160,763,062	23,894,678	136,868,384	14.9%
TSB	226,067,483	401,796,555	(175,729,072)	177.7%
MERS				
General Employees	1,348,780,386	1,193,660,231	155,120,155	88.5%
Municipal Police/Fire	930,564,179	790,938,243	139,625,936	85.0%

a. Actuarial assumptions

The total pension liability for all defined benefit plans was determined by actuarial valuations performed as of June 30, 2021 and rolled forward to June 30, 2022 using generally accepted actuarial principles, except for five new MERS units that are based on an actuarial valuation performed as of June 30, 2022.

The actuarial assumptions used in the calculation of the total pension liability at the June 30, 2022 measurement date were consistent with the 2019 Actuarial Experience Investigation Study for the six-year period ended June 30, 2019 as approved by the System's Board on May 22, 2020.

The following table summarizes the actuarial assumptions applied to all periods included in the measurement.

8. Net Pension Liability (Asset) of the Participating Employers (continued)

Summary of Actuarial Assumptions

Used in the June 30, 2022 measurement date valuations to determine the Net Pension Liability (Asset)

	ERS		**MERS**	**SPRBT**	**JRBT**	**RIJRFT**	**TSB**	**SPRFT**
	State Employees	***Teachers***						
Valuation Date	June 30, 2021 valuation rolled forward to the June 30, 2022 measurement date (1).							
Actuarial Cost Method	Entry Age Normal - the Individual Entry Age Actuarial Cost methodology is used.							
Amortization Method	Level Percent of Payroll – Closed					Level Dollar	Level Dollar	Level Dollar
Actuarial Assumptions:								
Investment Rate of Return (2)	7.0%	7.0%	7.00%	7.0%	7.0%	3.69%	7.00%	7.00%
Projected Salary Increases	3.25% to 6.25%	3.0% to 13.0%	*General Employees* 3.25% to 7.25% *Police & Fire Employees* 4.00% to 14.00%	3.75% to 11.75%	2.75%	2.75%	3.0% to 13.0%	
Inflation (3)	2.5%							
Mortality	Variants of the PUB (10) Tables for Healthy and Disabled Retirees, projected with Scale Ultimate MP16.							

(1) For five new MERS unit joining in fiscal 2022, a June 30, 2022 valuation was used.

(2) The investment rate of return was used as the discount rate to determine the net pension liability (asset) for all plan except the RIJRFT plan for which the municipal bond index rate at June 30, 2022 (3.69%) was used.

(3) Overall wage inflation – 3.00% per year composed of an assumed 2.50% inflation assumption rate and a 0.50% general productivity component. The 2.5% inflation assumption is consistent for all funds. Each fund than assumes varying additional general increases, merit increase and service-related components unique to the plan

(4) Cost of Living Adjustments – All future COLAs were assumed to be 2.1% per annum for all MERS units with the COLA provision. For the TSB plan, a 2.5% COLA was assumed. For all other plans, it was assumed that the COLA was suspended through 2027and that it would be 2.1% thereafter.

8. Net Pension Liability (Asset) of the Participating Employers (continued)

The long-term expected rate of return best-estimate on pension plan investments was determined by the actuary using a building-block method. The actuary started by calculating best-estimate future expected real rates of return (expected returns net of pension plan investment expense and inflation) for each major asset class, based on a collective summary of capital market expectations from 40 sources. The June 30, 2022 expected arithmetic returns over the long-term (20 years) by asset class are summarized in the following table:

Asset Class	Long-Term Target Asset Allocation	Long-Term Expected Arithmetic Real Rate of Return
GROWTH		
Global Equity		
US Equity	24.30%	5.52%
International Developed Equity	11.10%	6.04%
Emerging Markets Equity	4.60%	7.83%
Sub-total	**40.00%**	
Private Growth		
Private Equity	12.50%	9.42%
Non-Core Real Estate	2.50%	4.80%
Sub-total	**15.00%**	
INCOME		
Equity Options	2.00%	5.25%
EMD (50/50 Blend)	2.00%	1.82%
Liquid Credit	3.00%	2.95%
Private Credit	3.00%	2.95%
CLO's	2.00%	2.95%
Sub-total	**12.00%**	
STABILITY		
Crisis Protection Class		
Treasury Duration	5.00%	-0.44%
Systematic Trend	5.00%	3.33%
Sub-total	**10.00%**	
Inflation Protection		
Core Real Estate	4.00%	4.80%
Private Infrastructure	4.00%	5.65%
Sub-total	**8.00%**	
Volatility Protection		
IG Corp Credit	3.25%	1.18%
Securitized Credit	3.25%	1.18%
Absolute Return	6.50%	3.33%
Cash	2.00%	-0.44%
Sub-total	**15.00%**	
Total	**100.00%**	

These return assumptions are then weighted by the target asset allocation percentage, factoring in correlation effects, to develop the overall long-term expected rate of return best-estimate on an arithmetic basis.

8. Net Pension Liability (Asset) of the Participating Employers (continued)

b. Discount rate

The discount rate used to measure the total pension liability of the plans was 7.0 percent for all but the RIJRFT plan. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from the employers will be made at statutorily required rates, actuarially determined. 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.

For the RIJRFT plan, the State has not opted to make actuarially determined employer contributions and based on those assumptions, the pension plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. Consequently, for the RIJRFT plan, the municipal bond index rate, based on fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" (3.69% at June 30, 2022) was applied to all periods of projected benefit payments to determine the total pension liability.

c. Sensitivity of the net pension liability (asset) to changes in the discount rate

The following presents the net pension liability (asset) of the employers calculated using the discount rate of 7.0 percent (for all plans except the RIJRFT), as well as what the employers' net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate. The RIJRFT plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members and consequently the municipal bond index rate of 3.69% at June 30, 2022 was used in the determination of the net pension liability for that plan with a similar +1/-1% sensitivity analysis.

Plan	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
ERS			
State Employees	$ 2,446,003,476	$ 1,972,815,456	$ 1,542,866,145
Teacher	3,388,273,835	2,700,718,943	2,075,997,918
MERS			
General Employees	284,230,902	155,120,155	37,816,232
Municipal Police/Fire	226,932,092	139,625,936	60,317,877
SPRBT	39,847,383	20,147,990	2,253,205
JRBT	8,125,470	(1,038,615)	(9,363,269)
SPRFT	152,828,177	136,868,384	122,364,377
TSB	(154,262,522)	(175,729,072)	(195,232,692)
	1.00% Decrease (2.69%)	**Current Discount Rate (3.69%)**	**1.00% Increase (4.69%)**
RIJRFT	$ 19,681,209	$ 17,903,740	$ 16,288,576

9. Administrative Expenses

Pursuant to General Law section 36-8-10.1, administrative costs of the System are financed through investment earnings up to a maximum of 0.175% of the average total investments before lending activities as reported in the annual report of the Auditor General for the next preceding five (5) fiscal years. Such amounts are transferred to a restricted receipt account within the State's general fund. Any unencumbered funds on June 30 of any fiscal year are credited to the plans in the same proportion as their contributions to the restricted receipt account.

Administrative expenses allocated to the System include personnel costs for employees of the Office of the General Treasurer who, in whole or in part, are involved in administering the System. The personnel costs allocated to the System include the employer share of actuarially determined contributions to the defined benefit pension plan (Employees' Retirement System Plan for State Employees) and the defined benefit post-employment health care plan, a cost sharing multiple employer plan administered through the Rhode Island State Employees' and Electing Teachers OPEB System (OPEB System). Required contributions to the defined contribution pension plan are also included in the allocated personnel costs. The State does not include any proportionate share of the net pension liability or net OPEB liability for cost-sharing pension and OPEB plans in the fiduciary funds of the State. The long-term pension and OPEB liabilities are reflected in the governmental activities of the State's government-wide financial statements.

The employer cost for employees participating in the State Employees' System defined benefit pension plan was 28.01% of covered payroll for fiscal 2022. Employer contributions to the defined benefit pension plan, included as administrative costs for the years ended June 30, 2022, 2021 and 2020 were $1,258,429, $1,109,427, and $1,028,786, respectively, which represents 100% of the annual required contributions. The employer cost for employees participating in the System's defined contribution pension plan was 1% to 1.5% of covered payroll based on years of service for fiscal 2022. Effective July 1, 2015, members of the defined contribution plan who had 20 or more years of service as of July 1, 2012, remained as plan participants but no longer contributed to the plan (both employee and employer contributions). Employer contributions to the defined contribution pension plan, included as administrative costs for the years ended June 30, 2022, 2021 and 2020 were $45,008, $37,163, and $36,531, respectively, which represents 100% of the annual required contributions.

The employer cost for employees participating in the State Employees' OPEB plan was 5.28% of covered payroll for fiscal 2022. Employer contributions to the OPEB plan, included as administrative costs for the years ended June 30, 2022, 2021 and 2020 were $242,429, $241,708, and $264,373, respectively, which represents 100% of the annual required contributions.

The OPEB system issues a stand-alone, publicly available financial report that includes the financial statements and required supplementary information including descriptions of benefit provisions and information about the measurement of the net OPEB liability. A copy of the report can be obtained from the Office of Accounts and Control, One Capitol Hill, Providence, RI 02903.

Administrative expenses of the System, financed as previously described, include $1,837,789 of expenses related to oversight of the System's investment portfolio. Consistent with generally accepted accounting principles, these expenses have been included with investment expenses on the accompanying financial statements.

For fiscal year 2022, the administrative costs of the defined contribution plan were financed solely by participant fees. Fees paid to TIAA-CREF via participant fees for fiscal year ended June 30, 2022 were $1,468,943 excluding plan transfers. From these participant fees, $378,462 was transferred to the State of Rhode Island to fund the fiscal 2022 operating expenses of the Office of the General Treasurer related to the administration of the defined contribution plan.

10. Commitments

The State Investment Commission has committed to fund certain private equity, real estate, and infrastructure investment managers at a predetermined subscription amount. Outstanding unfunded investment commitments at June 30, 2022 totaled $1.5 billion. These commitments will be funded through cash available within the pooled investment trust generated through investment income and/or liquidation of other investments.

The system's investments in hedge funds are generally subject to "lock-up" provisions that limit (subject to certain exceptions) the ability to withdraw amounts previously invested for a period of one to three years after the initial investment. The system's investments in hedge fund assets are available for redemption on a monthly, quarterly, semi-annual or annual basis, and are subject to notice periods which vary by fund and range from 30 days to 75 days. Some funds limit redemptions to 25% of invested capital on any one redemption date. At June 30, 2022 $1,945,896 was in liquidation.

The System is committed under a ten-year development and operating agreement to design, transition, and implement new line-of-business, general ledger accounting system, and payroll administration systems. The contract requires monthly payments through fiscal 2025. Total payments over the contract period are estimated at $22 million.

11. Related Parties

The State Investment Commission, which sets investment policy and oversees the investments of the System, created three limited liability companies to account for assets invested by managers within its Crisis Protection Class – Trend Following. The System is the sole equity member in each of the limited liability companies. The System's investment is reported at the net asset value based on independently audited financial statements as of June 30, 2022.

12. Contingencies

Legal Challenges to Pension Reform - The 2009, 2010 and 2011 legislative pension reforms resulted in numerous lawsuits against the State brought by current and retired employees, as well as their unions. Of these lawsuits, two remain pending as described below.

In September 2014, a case challenging RIRSA was commenced by the Rhode Island State Troopers Association and Rhode Island State Troopers Association ex rel. Kevin M. Grace and Ernest E. Adams in Superior Court against the State and ERSRI as co-defendants. In 2019, the co-defendants filed motions to dismiss, which were granted in part. The co-defendants have filed motions for summary judgment, which remain pending. In the meantime, plaintiffs have sought discovery and co-defendants have moved for a protective order on the basis that the Court should rule on the pending motions for summary judgment, which would obviate the need for discovery. A hearing on the discovery issue took place on September 9th and the Court agreed with defendants to stay all discovery pending a hearing and decision on summary judgment. The parties anticipate a hearing on summary judgment in early 2023.

In 2020, a case was brought by numerous plaintiffs who had brought a prior pension lawsuit case, which resulted in the passage of RIRSA and settlement. The case was brought in the United States District Court for the District of Rhode Island. The State and ERSRI filed a motion to dismiss on the grounds that the 2020 lawsuit sought to relitigate issues that had already been decided in the prior lawsuit. The District Court agreed and granted the Motion to Dismiss. The Plaintiffs have appealed this decision and in August 2022, a three-judge panel of the First Circuit affirmed the judgment of the district court in all respects. Plaintiffs then petitioned the United States Supreme Court for a writ of certiorari. The Supreme Court is anticipated to take up that petition at its January 6, 2023 conference.

13. Subsequent events

The System has evaluated subsequent events through December 28, 2022, the date the statements were available to be issued.

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

Required Supplementary Information

Schedules of Changes in the Participating Employers' Net Pension Liability (Asset)

Schedules of Investment Returns

Schedules of Employer and Other Nonemployer Entity Contributions

Notes to Required Supplementary Information

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND
REQUIRED SUPPLEMENTARY INFORMATION
Schedules of Changes in the Participating Employers' Net Pension Liability
Employees' Retirement System Plan

	2022		2021		2020		2019		2018	
	State Employees	**Teachers**	**State Employees**	**Teachers**	**State Employees**	**Teachers**	**State Employees**	**Teachers**	**State Employees**	**Teachers**
Total Pension Liability										
Service Cost	$ 61,134,972	$ 83,112,455	$ 60,457,896	$ 82,403,921	$ 63,748,227	$ 83,770,752	$ 61,954,710	$ 83,247,093	$ 61,430,436	$ 82,924,148
Interest	328,247,575	477,355,550	325,722,160	475,374,697	326,188,559	477,306,043	322,077,303	473,000,055	317,996,827	464,922,181
Benefit Changes	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	13,282,995	28,241,014	(1,359,514)	(38,707,672)	2,916,361	(28,223,867)	15,518,855	(7,814,369)	18,658,150	54,088,887
Changes of assumptions	-	-	-	-	(55,472,975)	(71,972,090)	-	-	-	-
Benefit payments	(354,177,803)	(494,461,453)	(343,985,646)	(487,793,158)	(340,810,054)	(487,783,008)	(342,620,725)	(486,577,981)	(337,489,367)	(486,818,998)
Net change in Total Pension Liability	$ 48,487,739	$ 94,247,566	$ 40,834,896	$ 31,277,788	$ (3,429,882)	$ (26,902,170)	$ 56,930,143	$ 61,854,798	$ 60,596,046	$ 115,116,218
Total pension liability - beginning	4,835,772,488	7,025,039,500	4,794,937,592	6,993,761,712	4,798,367,474	7,020,663,882	4,741,437,331	6,958,809,084	4,680,841,285	6,843,692,866
Total pension liability - ending	$ 4,884,260,227	$ 7,119,287,066	$ 4,835,772,488	$ 7,025,039,500	$ 4,794,937,592	$ 6,993,761,712	$ 4,798,367,474	$ 7,020,663,882	$ 4,741,437,331	$ 6,958,809,084
Plan Fiduciary Net Position										
Employer contributions	$ 245,160,250	$ 323,543,655	$ 204,285,120	$ 276,568,795	$ 199,918,013	$ 266,845,321	$ 189,415,698	$ 249,634,988	$ 174,374,155	$ 239,092,095
Employee contributions	39,831,549	49,363,747	39,436,591	49,381,014	40,930,636	49,954,869	39,830,923	50,213,121	39,996,527	49,906,906
Net investment income	(75,309,755)	(126,604,917)	639,291,421	1,038,696,843	92,022,240	143,922,968	157,159,868	237,724,787	188,629,584	286,398,383
Benefit payments	(354,177,803)	(494,461,453)	(343,985,646)	(487,793,158)	(340,810,054)	(487,783,008)	(342,620,725)	(486,577,981)	(337,489,367)	(486,818,998)
Transfers of member contributions										
Administrative expenses	(2,844,845)	(4,782,533)	(2,597,029)	(4,219,586)	(2,574,169)	(4,026,006)	(2,558,265)	(3,869,709)	(2,544,260)	(3,862,978)
Transfers to affiliated systems	1,396,590	(181,517)	(74,173)	245,192	(804,393)	(69,798)	5,460	359,298	1,456,519	(424,248)
Other	162,295	49,828	78,162	6,312	164,308	16,421	79,332	849,710	124,217	869,209
Net change in fiduciary net position	$ (145,781,719)	$ (253,073,190)	$ 536,434,446	$ 872,885,412	$ (11,153,419)	$ (31,139,233)	$ 41,312,291	$ 48,334,214	$ 64,547,375	$ 85,160,369
Plan Fiduciary net position - beginning	$ 3,057,226,491	$ 4,671,641,313	$ 2,520,792,045	$ 3,798,755,901	$ 2,531,945,464	$ 3,829,895,134	$ 2,490,633,173	$ 3,781,560,920	$ 2,426,085,798	$ 3,696,400,551
Plan Fiduciary net position - ending	$ 2,911,444,772	$ 4,418,568,123	$ 3,057,226,491	$ 4,671,641,313	$ 2,520,792,045	$ 3,798,755,901	$ 2,531,945,464	$ 3,829,895,134	$ 2,490,633,173	$ 3,781,560,920
Net Pension Liability	$ 1,972,815,455	$ 2,700,718,943	$ 1,778,545,997	$ 2,353,398,187	$ 2,274,145,547	$ 3,195,005,811	$ 2,266,422,010	$ 3,190,768,748	$ 2,250,804,158	$ 3,177,248,164
Plan Fiduciary Net Position as a percentage of the total pension liability	59.6%	62.1%	63.2%	66.5%	52.6%	54.3%	52.8%	54.6%	52.5%	54.3%
Covered payroll	$ 763,233,105	$ 1,118,606,392	$ 739,998,727	$ 1,091,442,659	$ 755,310,749	$ 1,080,912,926	$ 718,732,131	$ 1,060,472,523	$ 691,006,031	$ 1,031,394,874
Net pension liability as a percentage of covered payroll	258.5%	241.4%	240.3%	215.6%	301.1%	295.6%	315.3%	300.9%	325.7%	308.1%

See notes to required supplementary information.

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND
REQUIRED SUPPLEMENTARY INFORMATION
Schedules of Changes in the Participating Employers' Net Pension Liability
Employees' Retirement System Plan

	2017		2016		2015		2014	
	State Employees	**Teachers**	**State Employees**	**Teachers**	**State Employees**	**Teachers**	**State Employees**	**Teachers**
Total Pension Liability								
Service Cost	$ 58,715,260	$ 79,219,202	$ 59,017,905	$ 78,445,027	$ 58,003,597	$ 73,780,964	$ 56,795,525	$ 73,917,744
Interest	320,346,656	471,638,608	320,857,388	471,001,292	312,489,666	457,901,918	309,695,399	454,525,784
Benefit Changes	-	-	-	-	102,727,033	148,006,628	-	-
Differences between expected and actual experience	(6,891,246)	(29,762,014)	(48,986,533)	$ (50,843,400)	(28,729,479)	(20,696,669)	-	-
Changes of assumptions	235,517,482	318,950,799	-	-	-	-	(23,761,746)	(98,423,775)
Benefit payments	(337,555,977)	(490,517,793)	(337,538,418)	(490,467,141)	(329,318,255)	(482,865,966)	(330,357,881)	(483,854,062)
Net change in Total Pension Liability	$ 270,132,175	$ 349,528,802	$ (6,649,658)	$ 8,135,778	$ 115,172,562	$ 176,126,875	$ 12,371,297	$ (53,834,309)
Total pension liability - beginning	4,410,709,110	6,494,164,064	4,417,358,768	6,486,028,286	4,302,186,206	6,309,901,411	4,289,814,909	6,363,735,720
Total pension liability - ending	$ 4,680,841,285	$ 6,843,692,866	$ 4,410,709,110	$ 6,494,164,064	$ 4,417,358,768	$ 6,486,028,286	$ 4,302,186,206	$ 6,309,901,411
Plan Fiduciary Net Position								
Employer contributions	$ 176,093,310	$ 233,828,518	$ 159,534,421	$ 225,569,556	$ 155,901,921	$ 217,902,736	$ 151,660,705	$ 197,869,704
Employee contributions	41,537,793	50,071,218	41,021,592	49,502,952	28,477,668	36,470,893	28,105,658	36,306,239
Net investment income	259,237,475	394,975,442	(3,122,838)	(4,788,264)	57,417,358	88,131,991	340,085,721	522,960,223
Benefit payments	(337,555,977)	(490,517,793)	(337,538,418)	(490,467,141)	(329,318,255)	(482,865,966)	(330,357,881)	(483,854,062)
Transfers of member contributions	-	-	-	-	-	-	303,014	(290,471)
Administrative expenses	(2,533,747)	(3,860,429)	(2,259,017)	(3,463,764)	(2,394,922)	(3,676,564)	(2,234,676)	(3,436,330)
Transfers to affiliated systems	680,142	390,872	(252,093)	252,093	(107,668)	145,179	-	-
Other	180,663	926,185	132,016	955,508	673,125	1,016,295	182,841	129,791
Net change in fiduciary net position	$ 137,639,659	$ 185,814,013	$ (142,484,337)	$ (222,439,060)	$ (89,350,773)	$ (142,875,436)	$ 187,745,382	$ 269,685,094
Plan Fiduciary net position - beginning	$ 2,288,446,139	$ 3,510,586,538	$ 2,430,930,476	$ 3,733,025,598	$ 2,520,281,249	$ 3,875,901,034	$ 2,332,535,867	$ 3,606,215,939
Plan Fiduciary net position - ending	$ 2,426,085,798	$ 3,696,400,551	$ 2,288,446,139	$ 3,510,586,538	$ 2,430,930,476	$ 3,733,025,598	$ 2,520,281,249	$ 3,875,901,033
Net Pension Liability	$ 2,254,755,487	$ 3,147,292,315	$ 2,122,262,971	$ 2,983,577,526	$ 1,986,428,292	$ 2,753,002,688	$ 1,781,904,957	$ 2,434,000,378
Plan Fiduciary Net Position as a percentage of the total pension liability	51.8%	54.0%	51.9%	54.1%	55.0%	57.6%	58.6%	61.4%
Covered payroll	$ 683,530,388	$ 1,010,449,004	$ 671,420,995	$ 980,562,840	$ 669,787,489	$ 966,985,115	$ 653,573,357	$ 951,322,312
Net pension liability as a percentage of covered payroll	329.9%	311.5%	316.1%	304.3%	296.6%	284.7%	272.6%	255.9%

See notes to required supplementary information.

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND
REQUIRED SUPPLEMENTARY INFORMATION
Schedules of Changes in the Participating Employers' Net Pension Liability (Asset)
Teachers' Survivors Benefits Plan

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability									
Service Cost	$ 1,604,635	$ 1,506,774	$ 1,673,864	$ 1,673,826	$ 1,729,578	$ 2,154,632	$ 2,151,235	$ 2,134,663	$ 2,193,930
Interest	15,615,337	15,296,468	15,490,550	16,383,892	15,761,211	15,439,481	14,803,900	12,500,416	11,958,890
Benefit Changes	-	-	-	-	-	19,564,182	-	-	-
Differences between expected and actual experience	(7,419,807)	(562,109)	756,794	(19,959,752)	1,716,443	(23,870,746)	-	24,212,282	-
Changes of assumptions	-	-	(9,367,348)	-	-	15,500,130	-	-	-
Benefit payments	(12,013,220)	(11,456,351)	(11,029,497)	(10,690,518)	(9,877,314)	(8,672,172)	(8,292,668)	(7,992,381)	(7,622,990)
Net change in Total Pension Liability	(2,213,055)	4,784,782	(2,475,637)	(12,592,552)	9,329,918	20,115,507	8,662,467	30,854,980	6,529,830
Total pension liability - beginning	228,280,538	223,495,756	225,971,393	238,563,945	229,234,027	209,118,520	200,456,053	169,601,073	163,071,243
Total pension liability - ending	$ 226,067,483	$ 228,280,538	$ 223,495,756	$ 225,971,393	$ 238,563,945	$ 229,234,027	$ 209,118,520	$ 200,456,053	$ 169,601,073
Plan Fiduciary Net Position									
Employer contributions	$ 755,501	$ 736,193	$ 745,760	$ 745,856	$ 744,035	$ 589,883	$ 642,276	$ 603,388	$ 609,168
Employee contributions	755,501	736,193	745,760	745,856	744,035	589,883	642,276	603,388	609,168
Net investment income	(11,261,771)	92,054,850	12,730,241	21,155,071	24,552,338	33,277,060	(51,004)	6,951,465	39,657,338
Benefit payments	(12,013,220)	(11,456,351)	(11,029,497)	(10,690,518)	(9,877,314)	(8,672,172)	(8,292,668)	(7,992,381)	(7,622,990)
Administrative expenses	(413,199)	(356,460)	(350,178)	(332,273)	(330,288)	(309,283)	(267,475)	(276,010)	(260,585)
Other		1	-	-	-	5	(1)	-	-
Net change in fiduciary net position	$ (22,177,188)	$ 81,714,426	$ 2,842,086	$ 11,623,992	$ 15,832,806	$ 25,475,376	$ (7,326,596)	$ (110,150)	$ 32,992,099
Plan Fiduciary net position - beginning	$ 423,973,743	$ 342,259,317	$ 339,417,231	$ 327,793,239	$ 311,960,433	$ 286,485,057	$ 293,811,653	$ 293,921,803	$ 260,929,704
Plan Fiduciary net position - ending	$ 401,796,555	$ 423,973,743	$ 342,259,317	$ 339,417,231	$ 327,793,239	$ 311,960,433	$ 286,485,057	$ 293,811,653	$ 293,921,803
Net Pension Liability (Asset)	$ (175,729,072)	$ (195,693,205)	$ (118,763,561)	$ (113,445,838)	$ (89,229,294)	$ (82,726,406)	$ (77,366,537)	$ (93,355,600)	$ (124,320,730)
Plan Fiduciary Net Position as a percentage of the total pension liability (asset)	177.7%	185.7%	153.1%	150.2%	137.4%	136.1%	137.0%	146.6%	173.3%
Covered payroll	$ 607,440,443	$ 603,150,124	$ 590,286,509	$ 576,424,716	$ 557,928,457	$ 538,657,952	$ 581,414,779	$ 561,753,409	$ 563,134,080
Net pension liability (asset) as a percentage of covered payroll	-28.9%	-32.4%	-20.1%	-19.7%	-16.0%	-15.4%	-13.3%	-16.6%	-22.1%

See notes to required supplementary information.

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EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND
REQUIRED SUPPLEMENTARY INFORMATION
Schedules of Changes in the Participating Employers' Net Pension Liability
State Police Retirement Benefits Trust Plan

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability									
Service Cost	$ 5,828,793	$ 5,826,983	$ 5,788,358	$ 5,342,133	$ 4,999,127	$ 4,497,800	$ 4,316,597	$ 4,198,214	$ 5,121,964
Interest	13,898,152	13,110,255	12,404,907	11,590,039	10,763,319	9,392,637	9,057,956	8,540,146	7,767,937
Benefit Changes	-	-	-	-	-	-	-	1,169,580	-
Differences between expected and actual experience	(762,203)	(321,912)	(3,126,469)	623,765	1,911,865	10,693,999	(4,139,122)	(3,522,114)	-
Changes of assumptions	-	-	1,540,627	-	-	9,274,363	-	-	(364,277)
Benefit payments	(7,849,351)	(6,871,757)	(6,228,924)	(6,047,218)	(6,023,853)	(5,141,978)	(4,585,258)	(2,496,511)	(1,767,304)
Net change in Total Pension Liability	11,115,391	11,743,569	10,378,499	11,508,719	11,650,458	28,716,821	4,650,173	7,889,315	10,758,320
Total pension liability - beginning	199,555,312	187,811,743	177,433,244	165,924,525	154,274,067	125,557,246	120,907,073	113,017,758	102,259,438
Total pension liability - ending	$ 210,670,703	$ 199,555,312	$ 187,811,743	$ 177,433,244	$ 165,924,525	$ 154,274,067	$ 125,557,246	$ 120,907,073	$ 113,017,758
Plan Fiduciary Net Position									
Employer contributions	$ 5,210,604	$ 5,240,772	$ 4,877,630	$ 3,566,922	$ 2,797,003	$ 2,980,219	$ 4,004,656	$ 3,432,359	$ 3,330,889
Employee contributions	2,387,035	2,324,096	2,345,831	2,130,140	1,994,057	2,059,884	2,034,676	1,731,585	2,033,664
Net investment income	(5,343,473)	41,840,071	5,641,739	9,159,909	10,298,412	13,694,012	58,578	2,655,869	14,124,238
Benefit payments	(7,849,351)	(6,871,757)	(6,228,924)	(6,047,218)	(6,023,853)	(5,141,978)	(4,585,258)	(2,496,511)	(1,767,304)
Administrative expenses	(202,845)	(153,233)	(158,004)	(139,604)	(136,371)	(125,445)	(102,053)	(99,782)	(83,318)
Other	16,100	16,093	24,956	1,254	16,057	5,390	390	3,694	5,421
Net change in fiduciary net position	$ (5,781,930)	$ 42,396,042	$ 6,503,228	$ 8,671,403	$ 8,945,305	$ 13,472,082	$ 1,410,989	$ 5,227,214	$ 17,643,590
Plan Fiduciary net position - beginning	$ 196,304,642	$ 153,908,600	$ 147,405,372	$ 138,733,969	$ 129,788,664	$ 116,316,582	$ 114,905,593	$ 109,678,379	$ 92,034,791
Plan Fiduciary net position - ending	$ 190,522,712	$ 196,304,642	$ 153,908,600	$ 147,405,372	$ 138,733,969	$ 129,788,664	$ 116,316,582	$ 114,905,593	$ 109,678,381
Net Pension Liability	$ 20,147,991	$ 3,250,670	$ 33,903,143	$ 30,027,872	$ 27,190,556	$ 24,485,403	$ 9,240,664	$ 6,001,480	$ 3,339,377
Plan Fiduciary Net Position as a percentage of the total pension liability	90.4%	98.4%	81.9%	83.1%	83.6%	84.1%	92.6%	95.0%	97.0%
Covered payroll	$ 26,554,865	$ 26,438,215	$ 26,418,793	$ 24,216,376	$ 22,589,818	$ 22,727,638	$ 20,984,917	$ 19,700,678	$ 23,051,144
Net pension liability as a percentage of covered payroll	75.9%	12.3%	128.3%	124.0%	120.4%	107.7%	44.0%	30.5%	14.5%

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REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Changes in the Participating Employers' Net Pension Liability (Asset)

Judicial Retirement Benefits Trust Plan

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability									
Service Cost	$ 3,708,698	$ 3,387,061	$ 3,335,150	$ 3,184,130	$ 3,214,534	$ 3,000,728	$ 2,858,682	$ 3,024,124	$ 3,001,985
Interest	6,553,352	6,213,441	5,662,868	5,526,089	5,302,975	5,031,124	4,743,701	4,540,604	4,133,613
Benefit Changes	-	-	-	-	-	-	-	252,965	-
Differences between expected and actual experience	(2,874,396)	(563,923)	180,125	(3,165,269)	(2,032,334)	(1,788,628)	(1,205,744)	(2,857,295)	-
Changes of assumptions	-	-	2,514,949	-	-	5,173,300		-	(671,723)
Benefit payments	(4,699,734)	(3,983,312)	(3,724,119)	(3,608,845)	(2,956,407)	(2,740,166)	(2,530,567)	(1,808,864)	(1,631,368)
Net change in Total Pension Liability	2,687,920	5,053,267	7,968,973	1,936,105	3,528,768	8,676,358	3,866,072	3,151,534	4,832,507
Total pension liability - beginning	94,114,838	89,061,571	81,092,598	79,156,493	75,627,725	66,951,367	63,085,295	59,933,761	55,101,254
Total pension liability - ending	$ 96,802,758	$ 94,114,838	$ 89,061,571	$ 81,092,598	$ 79,156,493	$ 75,627,725	$ 66,951,367	$ 63,085,295	$ 59,933,761
Plan Fiduciary Net Position									
Employer contributions	2,611,261	2,245,823	2,189,255	1,922,023	2,057,529	2,057,159	$ 2,410,039	$ 2,709,397	$ 2,543,510
Employee contributions	1,398,104	1,215,454	1,204,448	1,109,161	1,142,163	1,117,518	1,052,902	1,120,609	1,092,790
Net investment income	(2,742,356)	21,815,087	2,955,375	4,819,916	5,376,764	7,107,208	28,787	1,367,527	7,220,592
Benefit payments	(4,699,734)	(3,983,312)	(3,724,119)	(3,608,845)	(2,956,407)	(2,740,166)	(2,530,567)	(1,808,864)	(1,631,368)
Administrative expenses	(97,187)	(79,690)	(79,652)	(73,533)	(71,270)	(65,088)	(52,548)	(51,039)	(42,538)
Other		(2)	-	-	-	(1)	(1)		
Net change in fiduciary net position	$ (3,529,912)	$ 21,213,360	$ 2,545,307	$ 4,168,722	$ 5,548,779	$ 7,476,630	$ 908,612	$ 3,337,630	$ 9,182,986
Plan Fiduciary net position - beginning	$ 101,371,283	$ 80,157,923	$ 77,612,616	$ 73,443,894	$ 67,895,115	$ 60,418,485	$ 59,509,873	$ 56,172,243	$ 46,989,257
Plan Fiduciary net position - ending	$ 97,841,371	$ 101,371,283	$ 80,157,923	$ 77,612,616	$ 73,443,894	$ 67,895,115	$ 60,418,485	$ 59,509,873	$ 56,172,243
Net Pension Liability (Asset)	$ (1,038,613)	$ (7,256,445)	$ 8,903,648	$ 3,479,982	$ 5,712,599	$ 7,732,610	$ 6,532,882	$ 3,575,422	$ 3,761,518
Plan Fiduciary Net Position as a percentage of the total pension liability	101.1%	107.7%	90.0%	95.7%	92.8%	89.8%	90.2%	94.3%	93.7%
Covered payroll	$ 11,453,668	$ 10,386,572	$ 10,284,151	$ 9,473,758	$ 9,653,254	$ 9,532,174	$ 8,981,094	$ 9,570,014	$ 9,314,258
Net pension liability as a percentage of covered payroll	-9.1%	-69.9%	86.6%	36.7%	59.2%	81.1%	72.7%	37.4%	40.4%

See notes to required supplementary information.

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EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Changes in the Participating Employers' Net Pension Liability

Rhode Island Judicial Retirement Fund Trust Plan

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability									
Service Cost	$ 460,202	$ 399,962	$ 322,719	$ 277,053	$ 293,825	$ 349,593	$ 466,046	$ 416,208	$ 497,532
Interest	451,292	550,105	639,648	756,058	725,852	615,782	719,311	673,131	709,876
Benefit Changes	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(1,249,561)	(656,413)	(646,063)	(2,023,652)	-	(1,090,142)	-	(642,370)	1,617,560
Changes of assumptions	(3,357,509)	1,175,829	2,059,715	917,164	(115,788)	(665,634)	1,865,123	858,970	(1,159,812)
Benefit payments	(500,278)	(395,828)	(399,016)	(399,016)	(399,016)	(399,015)	(231,176)	-	-
Net change in Total Pension Liability	(4,195,854)	1,073,655	1,977,003	(472,393)	504,873	(1,189,416)	2,819,304	1,305,939	1,665,156
Total pension liability - beginning	23,524,834	22,451,179	20,474,176	20,946,569	20,441,696	21,631,112	18,811,808	17,505,869	15,840,713
Total pension liability - ending	$ 19,328,980	$ 23,524,834	$ 22,451,179	$ 20,474,176	$ 20,946,569	$ 20,441,696	$ 21,631,112	$ 18,811,808	$ 17,505,869
Plan Fiduciary Net Position									
Employer contributions	$ 405,345	$ 399,138	$ 399,016	$ 399,016	$ 399,012	$ 332,340	$ 140,141	$ -	$ -
Employee contributions	124,547	126,171	125,540	121,904	116,757	116,667	135,454	158,718	153,145
Net investment income	(22,707)	177,802	22,391	39,005	43,511	63,669	3,869	9,094	12,045
Benefit payments	(500,278)	(395,828)	(399,016)	(399,016)	(399,016)	(399,015)	(231,176)	-	-
Administrative expenses	(1,326)	(988)	(959)	(762)	(646)	(558)	(361)	(239)	(77)
Other	(1)	-	-	-	-	-	1	-	-
Net change in fiduciary net position	$ 5,580	$ 306,295	$ 146,972	$ 160,147	$ 159,618	$ 113,103	$ 47,928	$ 167,573	$ 165,113
Plan Fiduciary net position - beginning	$ 1,419,660	$ 1,113,365	$ 966,393	$ 806,246	$ 646,628	$ 533,525	$ 485,597	$ 318,024	$ 152,910
Plan Fiduciary net position - ending	$ 1,425,240	$ 1,419,660	$ 1,113,365	$ 966,393	$ 806,246	$ 646,628	$ 533,525	$ 485,597	$ 318,023
Net Pension Liability	$ 17,903,740	$ 22,105,174	$ 21,337,814	$ 19,507,783	$ 20,140,323	$ 19,795,068	$ 21,097,587	$ 18,326,211	$ 17,187,846
Plan Fiduciary Net Position as a percentage of the total pension liability	7.4%	6.0%	5.0%	4.7%	3.8%	3.2%	2.5%	2.6%	1.8%
Covered payroll	$ 1,037,893	$ 1,051,425	$ 1,046,167	$ 1,002,164	$ 1,020,224	$ 988,110	$ 963,703	$ 1,320,875	$ 1,276,208
Net pension liability as a percentage of covered payroll	1725.0%	2102.4%	2039.6%	1946.6%	1974.1%	2003.3%	2189.2%	1387.4%	1346.8%

See notes to required supplementary information.

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EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Changes in the Participating Employers' Net Pension Liability

Rhode Island State Police Retirement Fund Trust Plan

	2022	2021	2020	2019	2018	2017
Total Pension Liability						
Service Cost	$ -	$ -	$ -	$ -	$ -	$ -
Interest	11,240,836	11,468,916	11,878,027	11,339,743	11,712,422	12,588,781
Benefit Changes	-	-	-	-	-	-
Differences between expected and actual experience	(3,212,201)	1,256,209	(161,705)	13,040,378	-	-
Changes of assumptions	-	-	(1,135,641)	-	-	4,213,754
Benefit payments	(15,697,877)	(16,268,950)	(16,581,299)	(16,799,403)	(17,273,412)	(17,391,853)
Net change in Total Pension Liability	(7,669,242)	(3,543,825)	(6,000,618)	7,580,718	(5,560,990)	(589,318)
Total pension liability - beginning	168,432,304	171,976,129	177,976,747	170,396,029	175,957,019	176,546,337
Total pension liability - ending	$ 160,763,062	$ 168,432,304	$ 171,976,129	$ 177,976,747	$ 170,396,029	$ 175,957,019
Plan Fiduciary Net Position						
Employer contributions	16,387,092	16,387,092	16,387,092	16,387,092	16,387,092	31,566,076
Employee contributions	-	-	-	-	-	-
Net investment income	(271,738)	6,144,151	868,442	768,972	1,136,938	1,838,792
Benefit payments	(15,697,877)	(16,268,950)	(16,581,299)	(16,799,403)	(17,273,412)	(17,391,853)
Administrative expenses	(22,296)	(18,194)	(17,175)	(16,727)	(5,304)	-
Other	1	-	-	75	1	-
Net change in fiduciary net position	$ 395,182	$ 6,244,099	$ 657,060	$ 340,009	$ 245,315	$ 16,013,015
Plan Fiduciary net position - beginning	23,499,498	17,255,399	16,598,339	16,258,330	16,013,015	-
Plan Fiduciary net position - ending	$ 23,894,680	$ 23,499,498	$ 17,255,399	$ 16,598,339	$ 16,258,330	$ 16,013,015
Net Pension Liability	$ 136,868,382	$ 144,932,806	$ 154,720,730	$ 161,378,408	$ 154,137,699	$ 159,944,004
Plan Fiduciary Net Position as a percentage of the total pension liability	14.9%	14.0%	10.0%	9.3%	9.5%	9.1%
Covered payroll	-	-	-	-	-	-
Net pension liability as a percentage of covered payroll	-	-	-	-	-	-

See notes to required supplementary information.

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Changes in the Participating Employers' Net Pension Liability (Asset)

Municipal Employees' Retirement System Plan

	2022		2021		2020		2019		2018	
	General employees	Police & Fire	General employees	Police & Fire	General employees	Police & Fire	General employees	Police & Fire	General employees	Police & Fire
Total Pension Liability										
Service Cost	$ 21,442,524	$ 25,811,865	$ 21,116,570	$ 24,570,482	$ 22,054,540	$ 24,666,454	$ 22,389,001	$ 22,704,444	$ 22,575,669	$ 21,676,077
Interest	90,659,367	61,284,719	89,241,369	58,271,187	88,753,861	52,729,964	86,978,973	50,426,631	84,784,807	47,530,413
Benefit Changes	171,448	1,735,881	-	1,336,024	-	41,705,800	-	-	-	-
Differences between expected and actual experience	(7,098,694)	(2,128,682)	(10,036,118)	(5,715,055)	(11,977,530)	(8,785,684)	(8,058,640)	(10,798,702)	(2,694,614)	(557,654)
Changes of assumptions	-	-	-	-	(13,447,289)	2,211,096	-	-	-	
Benefit payments	(81,613,622)	(37,459,325)	(78,841,750)	(34,606,423)	(77,058,642)	(32,032,192)	(74,514,466)	(28,785,059)	(71,940,154)	(26,791,879)
Net change in Total Pension Liability	23,561,023	49,244,458	21,480,071	43,856,215	8,324,940	80,495,438	26,794,868	33,547,314	32,725,708	41,856,957
Total pension liability - beginning	1,325,219,363	881,319,721	1,303,739,292	837,463,506	1,295,414,352	756,968,068	1,268,619,484	723,420,754	1,235,893,776	681,563,797
Total pension liability - ending	$ 1,348,780,386	$ 930,564,179	$ 1,325,219,363	$ 881,319,721	$ 1,303,739,292	$ 837,463,506	$ 1,295,414,352	$ 756,968,068	$ 1,268,619,484	$ 723,420,754
Plan Fiduciary Net Position										
Employer contributions	$ 33,919,316	$ 28,389,386	$ 32,485,480	$ 27,918,657	$ 32,776,043	$ 23,700,625	$ 31,732,424	$ 19,121,064	$ 30,183,815	$ 16,819,840
New employer contributions	-	1,780,957		1,232,204	-	12,757,430	-	-	-	-
Employee contributions	6,690,578	13,499,588	6,638,918	12,856,342	6,914,175	11,818,199	7,076,833	10,965,645	7,208,167	10,500,868
Net investment income	(34,583,622)	(22,491,122)	275,237,166	174,540,728	37,864,100	22,883,816	64,456,994	36,572,420	75,536,071	41,229,835
Benefit payments	(81,613,622)	(37,459,325)	(78,841,750)	(34,606,423)	(77,058,642)	(32,032,192)	(74,514,466)	(28,785,059)	(71,940,154)	(26,791,879)
Transfers of member contributions										
Administrative expenses	(1,140,259)	(755,552)	(1,047,735)	(666,005)	(1,043,244)	(633,007)	(1,007,916)	(571,683)	(1,005,573)	(561,290)
Transfers to affiliated systems	(1,248,235)	33,160	8,129	(179,149)	911,905	(37,714)	(427,720)	62,958	(559,793)	(472,477)
Other	691	25,932	7,523	998	3,490	268	1,471	565	(7,392)	23,666
Net change in fiduciary net position	$ (77,975,153)	$ (16,976,976)	$ 234,487,731	$ 181,097,352	$ 367,827	$ 38,457,425	$ 27,317,620	$ 37,365,910	$ 39,415,141	$ 40,748,563
Plan Fiduciary net position - beginning	$ 1,271,635,384	$ 807,915,220	$ 1,037,147,653	$ 626,817,868	$ 1,036,779,826	$ 588,360,443	$ 1,009,462,206	$ 550,994,533	$ 970,047,065	$ 510,245,970
Plan Fiduciary net position - ending	$ 1,193,660,231	$ 790,938,244	$ 1,271,635,384	$ 807,915,220	$ 1,037,147,653	$ 626,817,868	$ 1,036,779,826	$ 588,360,443	$ 1,009,462,206	$ 550,994,533
Net Pension Liability (Asset)	$ 155,120,155	$ 139,625,935	$ 53,583,979	$ 73,404,501	$ 266,591,639	$ 210,645,638	$ 258,634,526	$ 168,607,625	$ 259,157,278	$ 172,426,221
Plan Fiduciary Net Position as a percentage of the total pension liability	88.5%	85.0%	96.0%	91.7%	79.6%	74.8%	80.0%	77.7%	79.6%	76.2%
Covered payroll	$ 271,285,620	$ 135,583,797	$ 258,452,389	$ 128,359,989	$ 261,462,549	$ 118,932,888	$ 255,923,274	$ 111,169,948	$ 249,731,376	$ 105,827,416
Net pension liability (asset) as a percentage of covered payroll	57.2%	103.0%	20.7%	57.2%	102.0%	177.1%	101.1%	151.7%	103.8%	162.9%

See notes to required supplementary information.

**Plan Fiduciary Net Position for purposes of this report does not include $49,807,146 attributable to the five legacy West Warwick Units. These five Units will be included in next year's report.*

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND
REQUIRED SUPPLEMENTARY INFORMATION
Schedules of Changes in the Participating Employers' Net Pension Liability (Asset)
Municipal Employees' Retirement System Plan

	2017		2016		2015		2014	
	General employees	**Police & Fire**	**General employees**	**Police & Fire**	**General employees**	**Police & Fire**	**General employees**	**Police & Fire**
Total Pension Liability								
Service Cost	$ 21,557,479	$ 18,945,916	$ 20,993,576	$ 17,716,756	$ 20,454,038	$ 15,802,260	$ 20,534,252	$ 15,425,188
Interest	83,854,464	44,876,752	82,527,045	42,922,588	79,553,219	39,209,010	77,208,696	36,969,722
Benefit Changes	-	-	-	-	18,678,454	20,243,581	-	-
Differences between expected and actual experience	(1,116,817)	6,573,580	(14,594,497)	(9,510,635)	(10,829,976)	(2,598,079)	-	-
Changes of assumptions	60,394,231	35,347,395	-	-	-	-	893,569	(4,665,819)
Benefit payments	(72,152,762)	(26,127,177)	(70,865,501)	(25,248,345)	(66,083,440)	(22,950,990)	(66,801,709)	(22,501,480)
Net change in Total Pension Liability	92,536,595	79,616,466	18,060,623	25,880,364	41,772,295	49,705,782	31,834,808	25,227,611
Total pension liability - beginning	1,143,357,181	601,947,331	1,125,296,558	576,066,967	1,083,524,263	526,361,185	1,051,689,455	501,133,574
Total pension liability - ending	$ 1,235,893,776	$ 681,563,797	$ 1,143,357,181	$ 601,947,331	$ 1,125,296,558	$ 576,066,967	$ 1,083,524,263	$ 526,361,185
Plan Fiduciary Net Position								
Employer contributions	$ 31,686,825	$ 16,855,985	$ 30,300,536	$ 16,296,479	$ 28,763,340	$ 15,588,547	$ 26,704,092	$ 11,193,028
New employer contributions								
Employee contributions	7,332,568	10,079,595	7,244,745	9,561,530	4,368,524	7,223,947	4,333,503	6,979,451
Net investment income	103,015,529	54,186,494	24,225	(156,872)	21,923,799	10,703,150	126,156,827	59,474,454
Benefit payments	(72,152,762)	(26,127,177)	(70,865,501)	(25,248,345)	(66,083,440)	(22,950,990)	(66,801,709)	(22,501,480)
Transfers of member contributions	-	-	-	-	-	-	(85,962)	73,422
Administrative expenses	(973,249)	(511,933)	(1,178,758)	(427,823)	(878,056)	(425,478)	(789,990)	(372,429)
Transfers to affiliated systems	(272,164)	(798,852)	312,940	(312,936)	(48,286)	10,774	-	-
Other	26,504	69,347	34,888	66,307	262,213	21,917	62,117	23,960
Net change in fiduciary net position	$ 68,663,251	$ 53,753,459	$ (34,126,925)	$ (221,660)	$ (11,691,906)	$ 10,171,867	$ 89,578,878	$ 54,870,406
Plan Fiduciary net position - beginning	$ 901,383,814	$ 456,492,511	$ 935,510,739	$ 456,714,171	$ 947,202,645	$ 446,542,304	$ 857,623,766	$ 391,671,897
Plan Fiduciary net position - ending	$ 970,047,065	$ 510,245,970	$ 901,383,814	$ 456,492,511	$ 935,510,739	$ 456,714,171	$ 947,202,644	$ 446,542,303
Net Pension Liability (Asset)	$ 265,846,711	$ 171,317,827	$ 241,973,367	$ 145,454,820	$ 189,785,819	$ 119,352,796	$ 136,321,619	$ 79,818,882
Plan Fiduciary Net Position as a percentage of the total pension liability	78.5%	74.9%	78.8%	75.8%	83.1%	79.3%	87.4%	84.8%
Covered payroll	$ 244,466,993	$ 102,020,230	$ 233,474,157	$ 96,737,235	$ 228,189,238	$ 91,293,039	$ 223,124,242	$ 88,783,926
Net pension liability (asset) as a percentage of covered payroll	108.7%	167.9%	103.6%	150.4%	83.2%	130.7%	61.1%	89.9%

See notes to required supplementary information.

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

Schedules of Investment Returns

Annual Money-Weighted Rate of Return, Net of Investment Expense

	ERS	TSB	MERS	SPRBT	JRBT	RIJRFT	SPRFT
Fiscal Year Ended June 30, 2022	-2.72%	-2.66%	-0.186%	-2.93%	-2.95%	8.96%	-0.86%
Fiscal Year Ended June 30, 2021	27.67%	27.21%	27.56%	27.08%	27.15%	15.33%	29.73%
Fiscal Year Ended June 30, 2020	3.82%	3.64%	4.67%	3.85%	3.84%	2.29%	3.89%
Fiscal Year Ended June 30, 2019	6.54%	6.54%	6.56%	6.62%	6.60%	4.72%	8.91%
Fiscal Year Ended June 30, 2018	7.85%	7.85%	7.87%	7.83%	7.76%	6.45%	6.91%
Fiscal Year Ended June 30, 2017	12.34%	11.66%	12.17%	11.87%	11.87%	11.46%	9.79%
Fiscal Year Ended June 30, 2016	-0.78%	-0.15%	-0.57%	-0.07%	-0.03%	-1.72%	-
Fiscal Year Ended June 30, 2015	2.06%	2.25%	2.22%	2.28%	2.27%	2.28%	-
Fiscal Year Ended June 30, 2014	15.32%	15.25%	15.12%	14.99%	14.99%	5.61%	-

See notes to required supplementary information.

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

The SPRFT trust plan was created in fiscal 2017.

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Employer and Other Nonemployer Entity Contributions

Employees' Retirement System Plan

Plan		Actuarially Determined Contribution	Contributions in Relation to Actuarially Determined Contribution		Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
State employees							
2022	**	$ 245,160,250	$ 245,160,250		-	$ 763,233,105	32.12%
2021		204,285,120	204,285,120		-	739,998,727	27.61%
2020		199,918,013	199,918,013		-	755,310,749	26.47%
2019		189,415,698	189,415,698		-	718,732,131	26.35%
2018		174,374,155	174,374,155		-	691,006,031	25.23%
2017		176,093,310	176,093,310		-	683,530,388	25.76%
2016		159,534,421	159,534,421		-	671,420,995	23.76%
2015		155,901,921	155,901,921		-	669,787,489	23.28%
2014		151,077,142	151,077,142		-	653,573,357	23.12%
Teachers							
2022		$ 323,543,655	$ 323,543,655	*	-	$ 1,118,606,392	28.92%
2021		276,568,795	276,568,795	*	-	1,091,442,659	25.34%
2020		266,845,321	266,845,321	*	-	1,080,912,926	24.69%
2019		249,634,988	249,634,988	*	-	1,060,472,523	23.54%
2018		239,092,095	239,092,095	*	-	1,031,394,874	23.18%
2017		233,828,517	233,828,517	*	-	1,010,449,004	23.14%
2016		225,569,556	225,569,556	*	-	980,562,840	23.00%
2015		217,902,736	217,902,736	*	-	966,985,115	22.53%
2014		197,869,704	197,869,704	*	-	951,322,312	20.80%

See notes to required supplementary information.

** includes contributions by the State of Rhode Island as the nonemployer contributing entity.*

***Includes voluntary contributions from the State that fully paid off the amortization bases created as a result of the 1990/91 and 1991/92 deferrals.*

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Employer and Other Nonemployer Entity Contributions

Teachers' Survivors Benefits Plan

Plan	Actuarially Determined Contribution	Contributions in Relation to Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2022	$ -	$ 755,501	$ (755,501)	$ 607,440,443	0.12%
2021	-	736,193	(736,193)	603,150,124	0.12%
2020	-	745,760	(745,760)	590,286,509	0.13%
2019	-	745,856	(745,856)	576,424,716	0.13%
2018	-	744,035	(744,035)	557,928,457	0.13%
2017	-	589,883	(589,883)	538,657,952	0.11%
2016	-	642,276	(642,276)	581,414,779	0.11%
2015	-	603,388	(603,388)	561,753,409	0.11%
2014	-	609,618	(609,618)	563,134,080	0.11%

See notes to required supplementary information.

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Employer and Other Nonemployer Entity Contributions

State Police Retirement Benefits Trust Plan

Plan	Actuarially Determined Contribution	Contributions in Relation to Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2022	$ 5,210,604	$ 5,210,604	-	$ 26,554,797	19.62%
2021	5,240,772	5,240,772	-	26,438,215	19.82%
2020	4,877,630	4,877,630	-	26,418,793	18.46%
2019	3,566,922	3,566,922	-	24,216,376	14.73%
2018	2,797,003	2,797,003	-	22,589,818	12.38%
2017	2,980,219	2,980,219	-	22,727,638	13.11%
2016	4,004,656	4,004,656	-	20,984,917	19.08%
2015	3,432,359	3,432,359	-	19,700,678	17.42%
2014	3,330,889	3,330,889	-	23,051,144	14.45%

See notes to required supplementary information.

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Employer and Other Nonemployer Entity Contributions

Judicial Retirement Benefits Trust Plan

Plan	Actuarially Determined Contribution	Contributions in Relation to Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2022	$ 2,611,261	$ 2,611,261	-	$ 11,453,668	22.80%
2021	2,245,823	2,245,823	-	10,386,572	21.62%
2020	2,189,255	2,189,255	-	10,284,151	21.29%
2019	1,922,023	1,922,023	-	9,473,758	20.29%
2018	2,057,529	2,057,529	-	9,653,254	21.31%
2017	2,057,159	2,057,159	-	9,532,174	21.58%
2016	2,410,039	2,410,039	-	8,981,094	26.83%
2015	2,709,397	2,709,397	-	9,570,014	28.31%
2014	2,543,510	2,543,510	-	9,314,258	27.31%

See notes to required supplementary information.

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Employer and Other Nonemployer Entity Contributions

Rhode Island Judicial Retirement Fund Trust Plan

Plan	Actuarially Determined Contribution	Contributions in Relation to Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2022	$ 1,190,045	$ 405,345	$ 784,700	$ 1,037,893	39.05%
2021	1,242,086	399,138	842,948	1,051,425	37.96%
2020	1,215,152	399,016	816,136	1,046,167	38.14%
2019	1,223,581	399,016	824,565	1,002,164	39.82%
2018	1,322,172	399,012	923,160	1,020,224	39.11%
2017	1,240,501	332,340	908,161	988,161	33.63%
2016	1,200,000	140,141	1,059,859	963,703	14.54%
2015	1,623,061	-	1,623,061	1,320,875	0.00%
2014	1,695,434	-	1,695,434	1,276,208	0.00%

See notes to required supplementary information.

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

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Employer and Other Nonemployer Entity Contributions

Rhode Island State Police Retirement Fund Trust Plan

Plan	Actuarially Determined Contribution	Contributions in Relation to Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2022	$ 16,387,092	$ 16,387,092	$ -	n/a	n/a
2021	16,387,092	16,387,092	-	n/a	n/a
2020	16,387,092	16,387,092	-	n/a	n/a
2019	16,387,092	16,387,092	-	n/a	n/a
2018	16,387,092	16,387,092	-	n/a	n/a
2017	16,387,092	16,566,076	(178,984)	n/a	n/a

See notes to required supplementary information.

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

The SPRFT trust plan was created in fiscal 2017.

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Employer and Other Nonemployer Entity Contributions

Municipal Employees' Retirement System Plan

Plan		Actuarially Determined Contribution	Contributions in Relation to Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
General Employees						
2022		$ 33,919,316	$ 33,919,316	$ -	$ 271,285,620	12.50%
2021		32,485,480	32,485,480	-	258,452,389	12.57%
2020		32,776,043	32,776,043	-	261,462,549	12.54%
2019		31,732,424	31,732,424	-	255,923,274	12.40%
2018		30,183,815	30,183,815	-	249,731,376	12.09%
2017		31,686,825	31,686,825	-	244,466,993	12.96%
2016		30,300,536	30,300,536	-	233,474,157	12.98%
2015		28,763,340	28,763,340	-	228,189,238	12.61%
2014		26,704,094	26,704,094	-	223,124,242	11.76%
Police and Fire						
2022	*	$ 28,389,386	$ 28,389,386	$ -	$ 135,583,797	20.94%
2021		27,918,657	27,918,657	-	128,359,989	21.75%
2020		23,700,625	23,700,625	-	118,932,888	19.93%
2019		19,121,064	19,121,064	-	111,169,948	17.20%
2018		16,819,840	16,819,840	-	105,827,416	15.89%
2017		16,855,985	16,855,985	-	102,020,230	16.52%
2016		16,296,479	16,296,479	-	96,737,235	16.85%
2015		15,588,547	15,588,547	-	91,293,039	17.08%
2014		11,193,028	11,193,028	-	88,783,926	12.89%

See notes to required supplementary information.

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

**Does not include the initial contribution of $882,458 from the Limerock Fire District and $898,499 from the West Warwick Fire Department.*

The schedules are intended to present ten years of data. Additional years of data will be presented as they become available.

1. Actuarial methods and assumptions used to calculate the net pension liability (asset) of the participating employers

The actuarial methods and assumptions used to calculate the net pension liability (asset) of the participating employers are described in Note 8 to the financial statements. The following information is presented about factors that significantly affect trends in the amounts reported between years.

June 30, 2022 measurement date –

There were no changes in actuarial methods or assumptions reflected in the calculation of the net pension liability (asset) of the plans as of the June 30, 2022 measurement date compared to the June 30, 2021 measurement date except for the changes in assumptions for the RIJRFT plan due to use of the municipal bond index rate of 3.69% instead of the plan's assumed investment rate of return of 1.92%.

June 30, 2021 measurement date –

There were no changes in actuarial methods or assumptions reflected in the calculation of the net pension liability (asset) of the plans as of the June 30, 2021 measurement date compared to the June 30, 2020 measurement date except for the changes in assumptions for the RIJRFT plan due to use of the municipal bond index rate of 1.92% instead of the plan's assumed investment rate of return of 2.45%.

June 30, 2020 measurement date –

As part of the 2020 Actuarial Experience Study for the six-year period ending June 30, 2019 as approved by the System Board on May 22, 2020, certain assumptions were modified and reflected in the determination of net pension liability (asset) at the June 30, 2020 measurement date. The following summarizes the more significant changes in assumptions:

- Separated Correctional Officers from State Employees for all assumptions.
- Updated the underlying mortality tables from the RP-2014 set of tables to the public sector-based PUB (10) tables.
- Increased slightly the probabilities of turnover.
- Decreased slightly the probabilities of retirement.
- Modified slightly the probabilities of disability, including adding material incidence of disability for members in the age ranges that historically have been eligible to retire but under prospective provisions are not.
- Lowered wage assumptions for Judges from 3.00% to 2.75%.

The RIJRFT plan used the municipal bond index rate of 2.45% instead of the plan's assumed investment rate of return of 3.13%.

June 30, 2019 measurement date –

There were no changes in actuarial methods or assumptions reflected in the calculation of the net pension liability (asset) of the plans as of the June 30, 2019 measurement date compared to the June 30, 2018 measurement date except for the changes in assumptions for the RIJRFT plan due to use of the municipal bond index rate of 3.13% instead of the plan's assumed investment rate of return of 3.62%.

1. Actuarial methods and assumptions used to calculate the net pension liability (asset) of the participating employers (continued)

June 30, 2018 measurement date –

There were no changes in actuarial methods or assumptions reflected in the calculation of the net pension liability (asset) of the plans as of the June 30, 2018 measurement date compared to the June 30, 2017 measurement date except for the changes in assumptions for the RIJRFT plan due to use of the municipal bond index rate of 3.62% instead of the plan's assumed investment rate of return of 3.56%.

June 30, 2017 measurement date –

As part of the 2017 Actuarial Experience Investigation Study for the six-year period ending June 30, 2016 as approved by the System Board on May 15, 2017, certain assumptions were modified and reflected in the determination of the net pension liability (asset) at the June 30, 2017 measurement date. The following summarizes the more significant changes in assumptions:

- Decreased the general inflation assumption from 2.75% to 2.50%;
- Decreased the nominal investment return assumption from 7.50% to 7.00%;
- Decreased the general wage growth assumption from 3.25% to 3.00%;
- Decreased salary increase assumptions; and
- Updated the post-retirement mortality tables to variants of the RP-2014 table. For the improvement scale, update to the ultimate rates of the MP-2016 projection scale.

Additionally, the municipal bond index rate, based on fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" (3.56% at June 30, 2017) was applied to all periods of projected benefit payments to determine the total pension liability instead of the plan's assumed investment rate of return of 2.85%.

June 30, 2016 measurement date –

There were no changes in actuarial methods or assumptions reflected in the calculation of the net pension liability (asset) of the plans as of the June 30, 2016 measurement date compared to the June 30, 2015 measurement date except for the changes in assumptions for the RIJRFT plan due to use of the municipal bond index rate of 2.85% instead of the plan's assumed investment rate of return of 3.8%.

June 30, 2015 measurement date –

There were no changes in actuarial methods or assumptions reflected in the calculation of the net pension liability (asset) of the plans as of the June 30, 2015 measurement date compared to the June 30, 2014 measurement date except for the changes in assumptions for the RIJRFT plan due to use of the municipal bond index rate of 3.8% instead of the plan's assumed investment rate of return of 4.0%.

Benefit changes are reflected in the calculation of the net pension liability at the June 30, 2015 measurement date. The following is a summary of those benefit changes that resulted from the settlement of the pension litigation and the subsequent enactment of those settlement provisions by the General Assembly.

Actuarial methods and assumptions used to calculate the net pension liability (asset) of the participating employers (continued)

- Employees with more than 20 years of service at July 1, 2012 will increase their employee contribution rates to 11% for state employees and municipal general employees will contribute 8.25% (9.25% for units with a COLA provision) and participate solely in the defined benefit plan going forward – service credit accruals will increase from 1% to 2% per year.

- Members are eligible to retire upon the attainment of: age 65 with 30 years of service, 64 with 31 years of service, 63 with 32 years of service, or 62 with 33 years of service. Members may retire earlier if their RIRSA date is earlier or are eligible under a transition rule.

- MERS public safety employees may retire at age 50 with 25 years of service, or any age with 27 years of service. MERS public safety employees will contribute 9.00% (10.00% for units with a COLA provision)

- Employees with more than 10 but less than 20 years of service at July 1, 2012 will receive an increased employer contribution to the defined contribution plan. Also, members who earn less than $35,000 per year will not be required to pay the administrative fees to the defined contribution plan.

- Members who retired from a COLA eligible plan before July 1, 2012 will receive a one-time cost of living adjustment of 2% of the first $25,000 paid as soon as administratively possible.

- Retirees as of June 30, 2015 will receive two $500 stipends; the interim cost of living increases will occur at 4 year rather than 5-year intervals.

- The COLA formula was adjusted to: 50% of the COLA is calculated by taking the previous 5-year average investment return, less 5.5% (5yr Return - 5.5%, with a max of 4%) and 50% calculated using previous year's CPI-U (max of 3%) for a total max COLA of 3.5%. This COLA is calculated on the first $25,855, effective 01/01/16, and indexed as of that date as well. (The indexing formula is run annually regardless of funding level each year.)

- Minor adjustments were made to the actuarial reduction for employees choosing to retire early.

2. Actuarially determined contributions

Actuarially determined contributions are calculated as of June 30, three years prior to the fiscal year in which the contributions are reported. For example, the contribution rates for fiscal 2022 for the plans were based on valuations performed as of June 30, 2019.

Contributions for teachers within the ERS plan include $116,290,553, $112,622,731, $108,635,976, $102,238,747, $98,120,835, $96,542,150, $87,997,637, $84,943,801 and $76,700,915 of nonemployer entity contributions made by the State of Rhode Island for fiscal years 2022, 2021, 2020, 2019, 2018, 2017, 2016, 2015, and 2014, respectively.

Contributions for the TSB plan are required by statute as outlined in the General Laws of Rhode Island. Due to the funded status of the plan, there was no actuarially determined contribution required to the plan in years 2014 through 2022.

2. Actuarially determined contributions (continued)

Summary of Actuarial Methods and Assumptions Used to determine Fiscal 2022 contribution rates

	ERS		**MERS**	**SPRBT**	**JRBT**	**RIJRFT**	**SPRFT**
	State Employees	***Teachers***					
Valuation Date	June 30, 2019 for all plans, except RIJRFT is as of June 30, 2021.						
Actuarial Cost Method	Entry Age Normal - the Individual Entry Age Actuarial Cost methodology is used.						
Amortization Method	Level Percent of Payroll – Closed					Level Dollar	Level Dollar
Equivalent Single Remaining Amortization Period	17 years	19 years	17 years	20 years	20 years	20 years	17 years
Amortization period for new gain/loss base	20 years						
Asset Valuation Method	5 Year Smoothed Market					Market value	Market value
Actuarial Assumptions:							
Investment Rate of Return	7.0%	7.0%	7.0%	7.0%	7.0%	1.92%	7.0%
Projected Salary Increases	3.25% to 6.25%	3.0% to 13.0%	*General Employees* 3.25% to 7.25% *Police & Fire Employees* 4.0% to 14.0%	3.75% to 11.75%	3.0%	3.0%	N/A
Mortality	• Male state employees, RP-2014 Combined Healthy for Males with Blue Collar adjustments, projected with Scale Ultimate MP16. • Female state employees, RP-2014 Combined Healthy for Females, projected with Scale Ultimate MP 16.						
		Male and female teachers: RP-2014 Combined Healthy for Males and Females, respectively, with White Collar adjustments, projected with Scale Ultimate MP 16.					
Inflation	2.5%						

The required contribution for the State Police Retirement Fund Trust (SPRFT), a plan newly created in fiscal 2017 covering a closed group of retired individuals, was calculated based on a level-dollar amortization over 18 years from June 30, 2016.

2. Actuarially determined contributions (continued)

Cost of Living Adjustments

All future COLAs were assumed to be 2.1% per annum for all MERS units with the COLA provision. For the TSB plan, a 2.5% COLA was assumed. For all other plans, it was assumed that the COLA was suspended for eight years (as of the June 30, 2019 valuation) and 2.1% thereafter.

Supplemental contributions

Certain supplemental contributions required by the General Laws were made to the ERS plan as more fully explained in Note 7 (d) to the financial statements. The following table reconciles the ERS plan employer contributions in the Schedule of Changes in the Participating Employers' Net Pension Liability and amounts included in the financial statements for the ERS plan.

	State Employees	Teachers	Total ERS Plan
Employer Contributions included in the Schedules of Changes in the Participating Employers' Net Pension Liability	$ 245,160,126	$ 323,543,655	$ 568,703,781

Per ERSRI FY2022 financial statements	Employer Contributions	$ 390,524,970
	State Contributions for Teachers	116,290,553
	Supplemental Employer Contributions	61,888,258
		$ 568,703,781

3. Covered payroll

Covered payroll, as included in required supplementary information schedules, includes projected annualized payroll amounts for employees beginning employment during the fiscal year. Consequently, the covered payroll amounts included in the required supplementary information schedules may differ from the actual fiscal year payroll base to which the actuarially determined contribution rate was applied. Additionally, the contribution amount as a percentage of covered payroll may differ from the Board approved contribution rate expressed as a percentage of payroll.

4. Schedules of Investment Returns

The annual money-weighted returns on investments within each of the plans, net of investment expense, are shown in the required supplementary information schedule. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

The schedules are intended to present ten years of data. Additional years of data will be presented as they become available.

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

Supplementary Information

Schedule of Investment Expenses

Schedule of Administrative Expenses

Schedule of Consultant Expenses

Employees' Retirement System of Rhode Island

Schedule of Investment Expenses
Fiscal Year Ended June 30, 2022

INVESTMENT MANAGEMENT FEES BY STRATEGY AND ASSET CLASS

TOTAL GROWTH		
Global Equity		
State Street Global Advisors - Russell 3000	$ 198,424	
State Street Global Advisors - QVM Tilt	842,988	
State Street Global Advisors - MSCI CAD - Commingled Fund	1,875	
State Street Global Advisors - MSCI World ex US - Commingled Fund	132,741	
State Street Global Advisors - MSCI Emerging Markets - Commingled Fund	319,778	
Private Growth		
Private Equity	75,297,411	
Non-Core Real Estate	19,316,552	
Opportunistic Private Credit	6,209,651	$ 102,319,420
INCOME		
Advent US Balanced	11,559	
PIMCO - Liquid Credit	464,832	
Loomis Sayles – Liquid Credit	273,895	
Wellington Management - EMD	649,123	
Neuberger – Equity Options	1,097,966	
Neuberger – CLO Equity Mezzanine	247,402	
Sycamore Tree CLO Fund	1,678,012	
Private Credit	4,834,055	9,256,844
STABILITY		
Crisis Protection		
WAMCO – Treasury Long Duration	256,986	
Systematic Trend Following (CPC LLC)	3,826,175	
Inflation Protection		
Core Real Estate	3,175,141	
Private Infrastructure	10,686,524	
State Street Global Advisors – BBG Barclays - TIPS	42,720	
Volatility Protection		
Loomis Sayles – Securitized Credit	867,220	
Fidelity Corporate	554,333	
Absolute Return Hedge Funds	31,587,076	
Payden & Rygel	201,481	51,197,656
OTHER		
Russell Overlay		362,170
Shott Capital / Hamilton Lane		1,475
Other Expenses		58,276
Subtotal - Investment Management Fees by Strategy and Asset Class		**163,195,841**
PROFESSIONAL FEES		
Legal	143,810	
BNY Mellon - Custodial	337,700	
Cliffwater	451,667	
NEPC	395,000	
WTax	30,000	
Institutional Shareholder Services	119,300	
Meketa	198,880	
Subtotal - Professional Fees		**1,676,357**
Subtotal - Investment Management & Professional Fees		**$ 164,872,198**
OPERATING EXPENSES		
Investment Administration - Office of the General Treasurer	1,837,789	
Subtotal - Operating Expenses		**1,837,789**
TOTAL INVESTMENT EXPENSES		**$ 166,709,987**

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

Schedule of Administrative Expenses

Fiscal Year Ended June 30, 2022

DEFINED BENEFIT PLANS

Personnel Expenses		
Salaries and wages	$	3,500,925
Benefits		2,122,637
Total personnel expenses		5,623,562
Purchased Services - Consultant Expenses		
Disability determination		385,218
Legal		338,899
Actuary		376,407
Information technology services		2,825,777
Stenographic services		3,011
Other professional services		29,736
Total purchased services		3,959,048
Operating Expenses		
Communications		221,475
Office and supplies		167,548
Printing and advertising		77,274
Travel		4,074
Occupancy		209,700
Insurance		134,470
Other		6,046
Total operating expenses		820,587
Subtotal administrative expenses - defined benefit plans	$	10,403,197

DEFINED CONTRIBUTION PLANS

Plan Administrative Expenses - TIAA-CREF	$	1,468,943
TOTAL ADMINISTRATIVE EXPENSES -- ALL PLANS	$	11,872,140

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

Schedule of Consultant Expenses

Fiscal Year Ended June 30, 2022

Disability Determination Services		
Medical exam fees - various physicians		$ 385,218
Legal		
Adler Pollock & Sheehan P.C.	$ 64,718	
Hinckley, Allen, & Snyder LLP	560	
Savage Law Partners LLP	271,918	
Hearing officers - various	1,704	338,899
Actuary		
Gabriel Roeder Smith & Co.		376,407
Information Technology		
EWAY Corporation	110,287	
Guidesoft Inc.	142,907	
Lifeworks LTD.*	2,507,716	
Stonewall Solutions, Inc.	64,867	2,825,777
Stenographic Services		
Allied Court Reporters Inc.		3,011
Other Professional Services		
Bulletproof Solutions Inc.	6,750	
Carousel Industries of North America	2,082	
Park Place Technologies	6,372	
Pension Benefit Information	14,231	
Robinson Time Service & Sales Co.	301	29,736
Total purchased services - consultant expenses		**$ 3,959,048**

* Amount for this vendor reflected as expense during fiscal year - see note 3 to the financial statements.

Investment Section

NEPC, LLC

KEVIN LEONARD
PARTNER

MATT MALERI
PRINCIPAL

December 2022

Dear ERSRI Fiduciaries:

NEPC, LLC ("NEPC") is pleased to introduce this overview of the Employees' Retirement System of Rhode Island ("ERSRI") investment program for the fiscal year ended June 30, 2022.

The overall objective of ERSRI is to meet all future pension obligations both in the near and long-term. These obligations include service, disability, death and vested retirement benefits, and other post-employment benefits to members and their beneficiaries.

To ensure a solid foundation for the future of the System, ERSRI implements an investment program designed to achieve an appropriate rate of return over the long term, while prudently managing the risk of the portfolio. Furthermore, the Rhode Island State Investment Committee ("SIC") established an Investment Policy Statement which details their investment objectives and policies in investing the funds of the System as mandated by RI General Law §35-10-6(b): "The commission shall adopt a statement of investment objectives and policies consistent with the Prudent Person Standard." In addition, the Investment Policy Statement includes asset allocation targets and acceptable ranges as well as asset class benchmarks for performance measurement. The System leverages the services of actuaries and consultants to provide guidance regarding actuarial matters, asset allocation, and invest policy development. The SIC manages the investment program pursuant to the investment policy, develops asset class guidelines, monitors and evaluates performance, and makes determinations regarding the retention of managers. Professional investment managers are selected by the SIC to manage portfolios in accordance with investment management agreements. The following pages report on the performance and attributes of the investment program for fiscal year 2022.

During the fiscal year, capital markets declined sharply on concerns related to rising inflation and the associated response from the Federal Reserve toward monetary and quantitative tightening. High inflation and dramatic increases in interest rates during the fiscal year led to concerns of a recession. Major global equity indexes declined sharply in the second half of the fiscal year as U.S. equity markets (as measured by the S&P 500 Index) ended the fiscal year with a return of -10.6%. Within the U.S. equity market, small cap stocks (as measured by the Russell 2000 Index) underperformed large cap stocks, posting a one-year return of -23.4%. Developed international equity markets (as measured by the MSCI EAFE Index) ended the year with a return of -17.8% while the MSCI Emerging Markets Index ended the fiscal year with a one-year return of -25.3%. As headline inflation rose to a 40-year high of 9.1%, the U.S. Federal Reserve raised its benchmark interest rate from a range of 0.00% - 0.25% at the end of the 2021 fiscal year to a range of 1.50% - 1.75% by the end of 2022 fiscal year, with an additional 0.75% rate hike in July 2022. In addition, the U.S. central bank began a quantitative tightening program in June, with the intention of reducing its $9 trillion in balance sheet assets. In response, the 10-year U.S. Treasury yield increased more than 1.5% over the 12-months ending June 30, 2022. The Bloomberg U.S. Aggregate Index ended the fiscal year down -10.3%. The U.S. high yield bond market (as measured by the Bloomberg US High Yield Index) posted a return of -12.8% over the same period. In real assets, commodities continued their rebound off calendar year 2020 lows with the Bloomberg Commodities Index posting one-year gains of +24.3% and WTI crude oil prices rising 43.9% since June 30, 2021.

For the fiscal year ended June 30, 2022, the ERSRI Fund ("The Fund") returned -1.44% on a net-of-fees basis, underperforming its assumed rate of return of 7.0% due to a significant decline across most asset classes over the past year. Despite the challenging performance, the Fund's -1.44% return ranked in the 2nd percentile (1st being the highest, 100th being the lowest) relative to other investors in the Investment Metrics Public Defined Benefit Net Universe ("universe"). ERSRI's longer-term performance remains strong as the Fund has returned +7.96% over the trailing 10-year period.

Throughout fiscal year 2022, the SIC completed several asset allocation and manager initiatives. The broad allocations to Growth (55%), Income (12%) and Stability (33%) stayed the same, however there were some changes to note at the sub-asset class level. In the Income bucket, a new exposure to convertible bonds (Advent Capital) was added to the Fund. The CLO Mezz/Equity allocation, a component of the Income bucket, was also funded (Sycamore Tree and Neuberger Berman). Broadly speaking, the large asset class buckets maintained their targets throughout the fiscal year and there were no policy target changes at the Growth/Income/Stability level. The most beneficial exposure through the fiscal year was the 33% allocation to the Stability bucket as this asset class returned +4.6% during the fiscal year, offsetting losses in other parts of the Fund. The SIC worked with NEPC and its other advisors to accomplish each of these initiatives.

NEPC provides ERSRI with quarterly economic and investment market updates and performance reviews, investment manager monitoring and selection advice, and related investment services for traditional and select non-traditional asset classes. Investment performance analysis and comparisons produced by NEPC have been calculated using standard performance evaluation methodologies and are consistent with industry standards. Performance results are calculated using a time-weighted return methodology and are reported on a net-of-fees basis.

Sincerely,

Kevin Leonard

Summary of ERSRI Fiscal Year 2022

For the fiscal year ended June 30, 2022, the ERSRI Fund ("The Fund") returned -1.44% on a net-of-fees basis, underperforming its assumed rate of return of 7.0% due to a significant decline across most asset classes over the past year. Despite the challenging performance, the Fund's -1.44% return ranked in the 2nd percentile (1st being the highest, 100th being the lowest) relative to other investors in the Investment Metrics Public Defined Benefit Net Universe ("universe"). ERSRI's longer-term performance remains strong as the Fund has returned +7.96% over the trailing 10-year period.

Market Overview

U.S. Equity Markets

The U.S. stock market rally ended abruptly as domestic stocks returned -10.6%, as measured by the S&P 500 Index, in the 1-Year ending 6/30/22. Declines were more significant in other parts of the U.S. equity market as small cap growth stocks, as measured by the Russell 2000 Growth Index, returned -33.4% in the 1-Year period. Large cap growth stocks also declined materially, returning -18.8% over the same time period. The performance gap between growth and value stocks was notable across both the large and small cap spaces. The Russell 1000 Value Index returned -6.8% and the Russell 2000 Value Index returned -16.3%. Broadly, small cap stocks performed very poor during the most recent fiscal year (as measured by the Russell 2000 Index) returning -25.2%, trailing the return of large cap stocks by nearly 15 percentage points.

Non-U.S. Equity Markets

International stocks had negative returns for the fiscal year as global equities returned -15.8% as measured by the MSCI ACWI Index. The MSCI EAFE Index returned -17.8% for the 1-Year period and the MSCI EM Index returned -25.3% this past fiscal year. The strength of the U.S. dollar was a large contributor to the negative returns experienced by U.S.-based investors with unhedged exposure. Notably, the MSCI EAFE USD Hedged Index was down just -6.6% during the 1-Year period. International small cap stocks also performed poorly during the fiscal year with the MSCI EAFE Small Cap Index returning -24.0% and the MSCI EM Small Cap Index declining -20.7%. Within the emerging markets, China was one of the worst performing countries as the MSCI China Index declined -31.8% over the 1-Year period.

Fixed Income Markets

U.S. Treasury yields increased sharply during the fiscal year with the 10-Year Treasury note rising more than 1.5% during the period. Across the entire Treasury curve, yields increased from 6/30/21 to 6/30/22 as the Federal Open Market committee (FOMC) hiked short-term rates in an effort to tame inflation. The Fed Funds Rate ended the fiscal year at a range of 1.50-1.75%, up from 0.25-0.50% at the start of the fiscal year. Making matters worse, credit spreads widened during the fiscal year as investors sold risk assets. The Bloomberg Aggregate Bond Index returned -10.3% in the 1-Year ending 6/30/22. Long Treasuries experienced very negative returns, declining -18.5% over the fiscal year period. Long U.S. credit declined further as widening spreads and rising Treasury yields led to a return of -21.4% for the 1-Year period for the Bloomberg Long Credit Index. Widening credit spreads were also a headwind to high yield credit. The Bloomberg High Yield Index returned -12.8% for the fiscal year and the Bloomberg Municipal High Yield Index returned -10.4% over the same period. With inflation at its highest levels in decades, TIPS provided some protection as the Bloomberg U.S. TIPS returned -5.1% for the fiscal year ending 6/30/22.

Real Estate and Alternative Investments

Real assets were one of the few bright spots during the fiscal year. Notably, oil performed well with spot prices climbing +43.9% during the fiscal year. Gold was once again a relatively weak performer within the real asset category as spot prices were up just 2.1% for the fiscal year. Performance across other real asset categories was mixed as real estate, measured by the NAREIT Composite Index, returned -6.7% while the NAREIT Global REIT Index returned -10.1%. Broadly, commodities performed well with the Bloomberg Commodity Index returning 24.3% and the energy heavy-GSCI Commodity Index returning +45.0%.

Equity						
	June	YTD	1 YR	3 YR	5 YR	10 YR
Russell 3000	-8.4%	-21.1%	-13.9%	9.8%	10.6%	12.6%
MSCI US Min. Vol.	-4.1%	-12.6%	-3.2%	6.3%	9.6%	11.7%
MSCI ACWI	-8.4%	-20.2%	-15.8%	6.2%	7.0%	8.8%
MSCI ACWI ex US	-8.6%	-18.4%	-19.4%	1.4%	2.5%	4.8%
MSCI ACWI ex US Min. Vol.	-5.0%	-12.6%	-9.6%	0.5%	2.9%	5.6%
MSCI World	-8.7%	-20.5%	-14.3%	7.0%	7.7%	9.5%
MSCI EM	-6.6%	-17.6%	-25.3%	0.6%	2.2%	3.1%

Credit						
	June	YTD	1 YR	3 YR	5 YR	10 YR
BC US Agg	-1.6%	-10.3%	-10.3%	-0.9%	0.9%	1.5%
BC US HY	-6.7%	-14.2%	-12.8%	0.2%	2.1%	4.5%
BC Long Treasuries	-1.5%	-21.3%	-18.5%	-2.9%	0.5%	1.6%
JPM EMBI Glob Div (EMD Hard Currency)	-6.2%	-20.3%	-21.2%	-5.2%	-1.2%	2.2%
JPM GBI-EM Glob Div (EMD Local Currency)	-0.8%	-9.9%	-10.9%	-0.1%	2.6%	4.6%

Real Assets						
	June	YTD	1 YR	3 YR	5 YR	10 YR
BBG Commodity	-10.8%	18.4%	24.3%	14.3%	8.4%	-0.8%
Alerian Midstream Index	-12.2%	13.2%	10.7%	7.6%	5.9%	
FTSE NAREIT Equity REITs	-7.4%	-20.2%	-6.3%	4.0%	5.3%	7.4%

S&P 500 Sectors (sorted by best to worst 1-year performers)

Index Summary (6/30/2021-6/30/2022)	Benchmark Weight	Benchmark Return
Energy	4.4%	40.0%
Utilities	3.1%	14.3%
Information Technology	26.9%	13.6%
Consumer Staples	7.0%	6.7%
Health Care	15.2%	3.4%
Real Estate	2.9%	-5.2%
Materials	2.6%	-8.7%
Financials	10.9%	-12.7%
Industrials	7.8%	-13.4%
Consumer Discretionary	10.5%	-24.2%
Communication Services	8.8%	-29.1%

**Source: S&P, FactSet*

Fund Performance Review

The Fund's -1.44% net of fee time weighted return outperformed the policy benchmark return of -3.29% and significantly outperformed the 60/40 benchmark return of -13.43%. The 60/40 benchmark is comprised of a 60% allocation to the MSCI All Country World Index and a 40% allocation to the Bloomberg U.S. Aggregate Bond Index.

The Fund's strong relative returns were primarily driven by strong performance within the Stability bucket. The Fund's Stability bucket experienced very strong returns from trend strategies (+30.15% during the fiscal year) and inflation protection strategies (+17.43%). The Fund has a 33% target allocation to the Stability bucket, which returned +4.57% net of fees for the fiscal year.

The Fund's Income bucket, a grouping that contains a handful of asset classes, returned -6.09% for the fiscal year. The Income bucket contains asset classes such as Equity Options, Liquid Credit and EMD. Finally, the Growth bucket returned -3.76% for the fiscal year. The sub-asset classes for the Growth bucket are Global Equity and Private Growth.

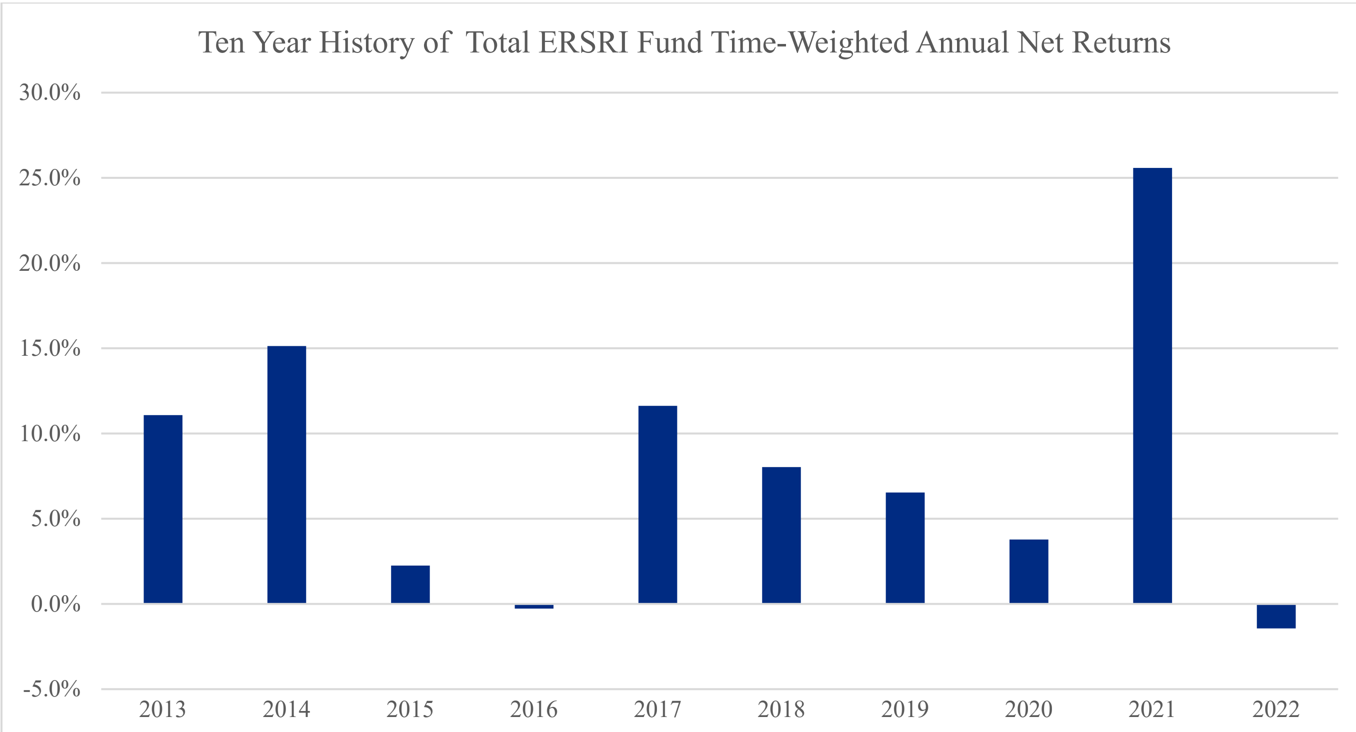
The ERSRI portfolio benefited greatly from its diversification during the fiscal year. With the significant increase in volatility, the Fund's Stability bucket provided meaningful diversification and downside protection. The long-term focus of the Fund is to reduce the volatility of the portfolio and position the portfolio to meet the objectives of the pension plan.

The net return by asset class for fiscal year ending June 30, 2022:

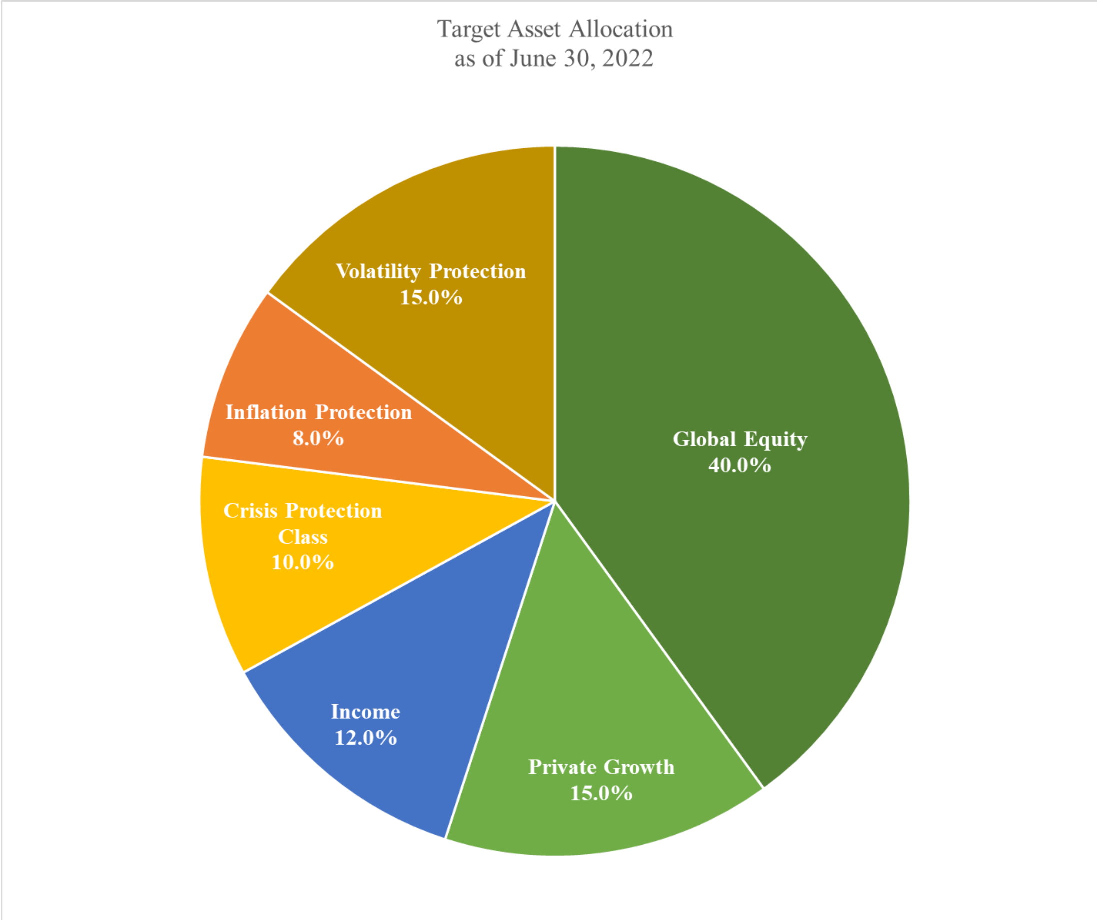
Asset Classes	Fiscal Year Return (net)
Private Growth	34.0%
Inflation Protection	17.4%
Crisis Protection Class	4.2%
Volatility Protection	-1.1%
Income	-6.1%
Public Equity	-15.5%
Total ERSRI Fund	-1.4%

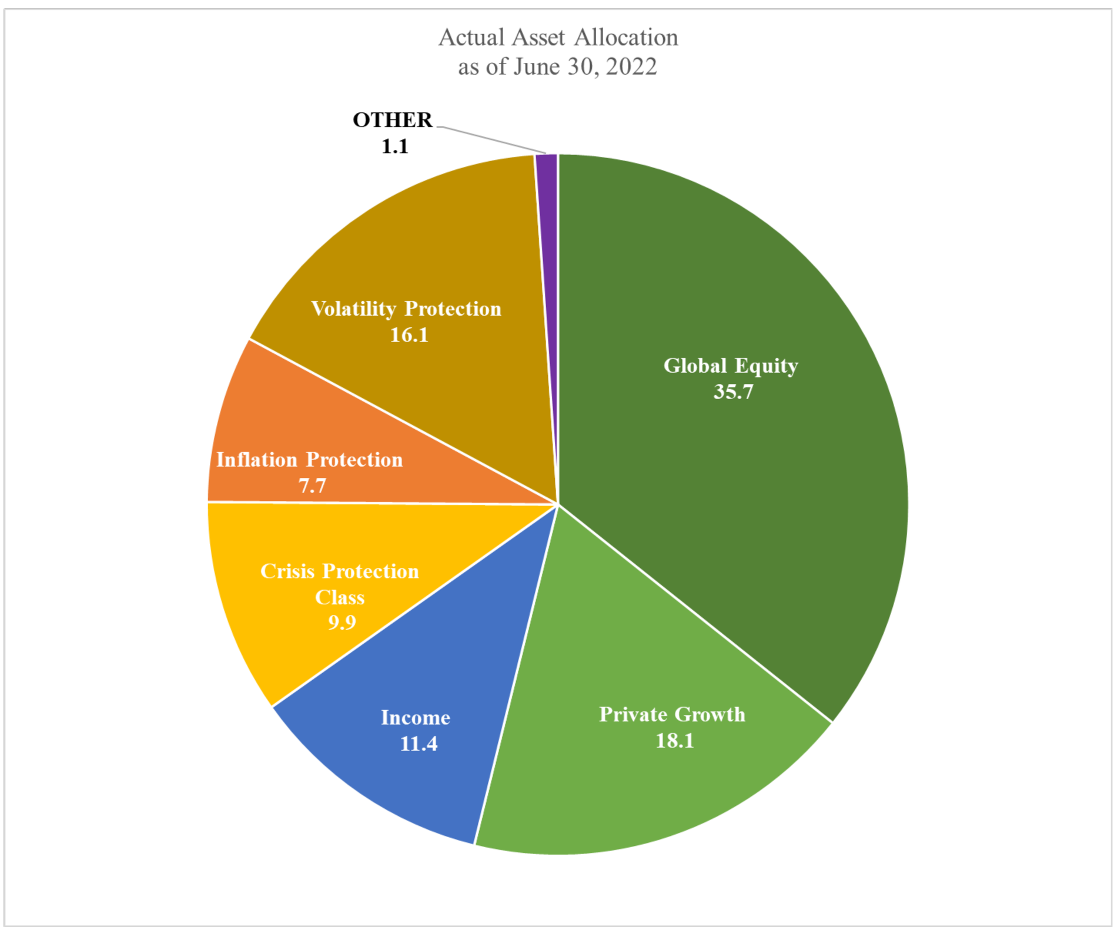
ANNUALIZED TIME-WEIGHTED NET INVESTMENT RETURNS – ACTUAL VERSUS INDICES

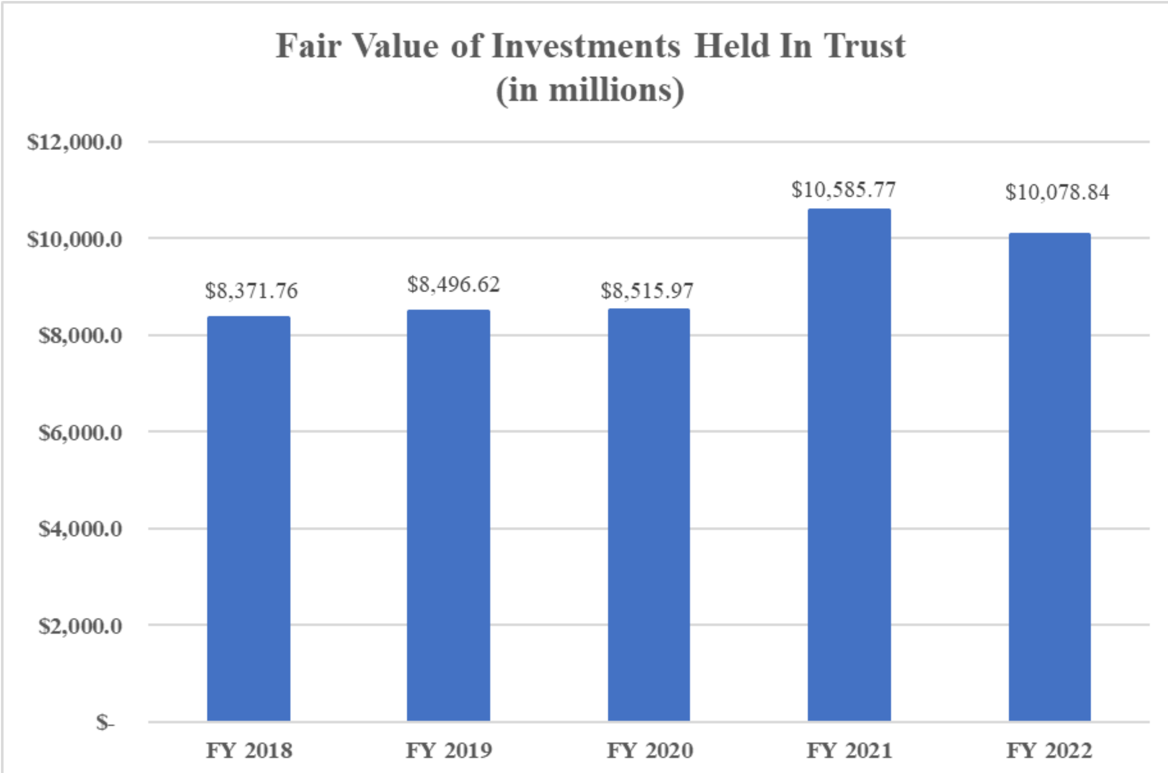
	Current Fiscal Year 2022	Annualized 3 Year	5 Years	10 Years
TOTAL PLAN	-1.45 %	8.71 %	8.14 %	7.97 %
Total Plan Benchmark	-3.29	7.78	7.50	7.61
US Public Equity	-13.59	9.96	10.75	12.61
Russell 3000 Index	-13.87	9.77	10.60	12.57
EAFE Public Equity	-17.38	1.49	2.59	-
MSCI EAFE Net Dividend Index	-17.77	1.07	2.20	-
Canada Public Equity	-7.09	8.09	7.62	-
MSCI Canada Net Dividend Index	-7.95	7.20	6.79	-
Emerging Market Equity	-25.19	0.50	2.08	-
MSCI EM Index Net	-25.28	0.57	2.18	-
QVM Tilt (Global Equity)	-13.46	7.32	7.80	-
MSCI World Net Dividend Index	-14.34	7.00	7.67	-
Private Equity	32.74	27.65	22.72	16.42
Cambridge Associates Private Equity and Venture Capital Aggre	22.53	26.40	22.36	17.50
Non-Core Real Estate	48.78	16.14	17.44	-
Cambridge Associates Value Add Real Estate Index 1Q Lag;	23.60	12.48	11.91	-
Equity Options	-5.97	-	-	-
CBOE S&P 500 PutWrite Index	1.03	-	-	-
Emerging Market Debt	-19.81	-	-	-
JPM EMBI Global Diversified Index	-21.22	-	-	-
JPM GBI-EM Global Diversified Index	-19.28	-	-	-
Liquid Credit	-12.17	-1.33	1.20	-
Liquid Credit Custom BM	-12.66	-0.81	1.37	-
Private Credit	9.61	6.50	5.10	-
Cambridge Associates Senior Debt Index 1Q Lag;	5.77	6.82	9.04	-
CLOs	1.07	-	-	-
JP Morgan CLOIE BB Index	-4.08	-	-	-
Crisis Protection Class - Systematic Trend	30.16	16.81	10.42	-
Credit Suisse Managed Futures (18% Vol) Liquid Index	27.85	13.02	6.77	-
Crisis Protection Class - Long Duration Treasuries	-18.66	-2.89	0.47	-
Barclays Long Duration US Treasury Index	-18.45	-2.94	0.51	-
Private Infrastructure	14.48	13.90	13.73	-
Cambridge Associates Private Infrastructure Index1 Q Lag;	16.66	12.26	12.34	-
Core Real Estate	28.60	10.50	8.84	-
NFI-ODCE Index, 1Q Lag	27.26	10.30	8.90	-
Inflation-Linked Bonds	-1.97	3.35	3.26	2.15
Barclays 1-10 Year US TIPS Index	-2.03	3.37	3.24	2.16
Absolute Return	9.69	9.70	8.66	-
HFRI Fund of Funds Composite Index	-5.50	3.94	3.62	-
Traditional (IG) Fixed Income	-11.70	-0.41	1.21	1.95
Bloomberg Barclays U.S. Aggregate Bond Index	-10.29	-0.93	0.88	1.54
ERSRI SMA Cash	-0.85	0.70	1.27	-
Bank of America Merrill Lynch 3-month US Treasury Bill.	0.17	0.63	1.11	0.64



ACTUAL ASSET ALLOCATION VERSUS TARGET ASSET ALLOCATION				
	As of June 30, 2022			
	Actual		**Target**	
GROWTH				
Global Equity	35.7	%	40.0	%
Private Growth	18.1		15.0	
INCOME	11.4		12.0	
STABILITY				
Crisis Protection Class	9.9		10.0	
Inflation Protection	7.7		8.0	
Volatility Protection	16.1		15.0	
OTHER	1.1		0.0	
TOTAL FUND	100.0	%	100.0	%


Target Asset Allocation
as of June 30, 2022
Volatility Protection
15.0%
Global Equity
40.0%
Inflation Protection
8.0%
Crisis Protection
Class
10.0%
Income
12.0%
Private Growth
15.0%


Actual Asset Allocation
as of June 30, 2022
OTHER
1.1
Volatility Protection
16.1
Global Equity
35.7
Inflation Protection
7.7
Crisis Protection
Class
9.9
Income
11.4
Private Growth
18.1


Fair Value of Investments Held In Trust
(in millions)
$12,000.0
$10,000.0
$8,000.0
$6,000.0
$4,000.0
$2,000.0
$-
$8,371.76
$8,496.62
$8,515.97
$10,585.77
$10,078.84
FY 2018
FY 2019
FY 2020
FY 2021
FY 2022

SUMMARY OF INVESTMENTS

TYPE OF INVESTMENT	June 30, 2022 Fair Value (in millions)	Percent of Total Fair Value
DOMESTIC EQUITY		
Domestic Equity Securities	2,215.9	20.9%
Commingled Funds - Domestic Equity	0.0	0.0%
TOTAL DOMESTIC EQUITY	**$ 2,215.9**	**20.9%**
INTERNATIONAL EQUITY		
International Equity Securities	392.5	3.7%
Commingled Funds - International Equity	972.5	9.2%
TOTAL INTERNATIONAL EQUITY	**$ 1,365.0**	**12.9%**
FIXED INCOME		
Collateralized Mortgage Obligations	41.7	0.4%
Corporate Bonds	791.9	7.5%
US Government Securities	649.2	6.1%
US Government Agency Securities	193.6	1.8%
Term Loans	43.1	0.4%
TOTAL FIXED INCOME	**$ 1,719.6**	**16.2%**
REAL ASSETS		
Real Estate	626.7	5.9%
Infrastructure	321.5	3.0%
TOTAL REAL ASSETS	**$ 948.2**	**9.0%**
CASH		
Cash and Cash Equivalents	61.8	0.6%
Short-Term Collective Investment Funds	177.1	1.7%
TOTAL CASH	**$ 238.9**	**2.3%**
OTHER INVESTMENTS		
Private Equity	1,966.0	18.6%
Hedge Funds	719.0	6.8%
Crisis Protection Class -Trend Following - Limited Partnerships	473.1	4.5%
Emerging Markets Debt - Collective Unit Trust	190.4	1.8%
Equity Options - Private LLC Investment	243.8	2.3%
Derivative Investments	-1.0	0.0%
TOTAL INVESTMENTS	**$ 10,078.8**	**95.2%**

*This represents the fair value of investments before the $109.6 million net investment payable.

TEN LARGEST EQUITY HOLDINGS BY FAIR VALUE*

	Shares	Top Equity Holdings	Fair Value
1	493,661	MICROSOFT CORP	$ 126,786,955
2	927,196	APPLE INC	126,766,237
3	36,343	ALPHABET INC	79,413,786
4	204,248	BERKSHIRE HATHAWAY INC	55,763,789
5	520,013	AMAZON.COM INC	55,230,581
6	3,251,812	OWL ROCK CAPITAL CORP	40,094,842
7	50,324	TESLA INC	33,889,188
8	180,720	JOHNSON & JOHNSON	32,079,607
9	59,475	UNITEDHEALTH GROUP INC	30,548,144
10	157,041	NVIDIA CORP	23,805,845

TEN LARGEST FIXED INCOME HOLDINGS BY FAIR VALUE*

	Security	Rate/Maturity	Fair Value
1	U S TREASURY BOND	2.875% 11/15/2046 DD 11/15/16	$ 35,751,755
2	U S TREASURY BOND	2.875% 05/15/2052 DD 05/15/22	30,474,880
3	U S TREASURY BOND	1.250% 05/15/2050 DD 05/15/20	28,889,550
4	U S TREASURY BOND	2.000% 02/15/2050 DD 02/15/20	26,113,256
5	U S TREASURY BOND	3.000% 11/15/2044 DD 11/15/14	23,407,400
6	U S TREASURY BOND	2.375% 05/15/2051 DD 05/15/21	21,262,227
7	U S TREASURY BOND	3.250% 05/15/2042 DD 05/15/22	21,096,875
8	U S TREASURY BOND	3.125% 08/15/2044 DD 08/15/14	19,820,944
9	U S TREASURY BOND	2.375% 11/15/2049 DD 11/15/19	19,430,089
10	U S TREASURY BOND	2.500% 02/15/2045 DD 02/15/15	18,867,875

*A complete listing of separate account portfolio holdings is available by contacting the ERSRI Investment offices. ERSRI also invests in various limited partnerships for which individual holdings data is not factored into this analysis

SCHEDULE OF INVESTMENT MANAGEMENT AND SERVICE FEES

FISCAL YEAR ENDED JUNE 30, 2022

	Fair Value of Assets Under Management [1] (in thousands)	Fees (in thousands)	Basis Points
INVESTMENT MANAGEMENT FEES			
Total Growth Composite	$ 5,426,481	$ 102,319	189
Total Income Composite	1,145,230	9,257	81
Total Stability Composite	3,399,407	51,198	151
Other	107,717	422	39
TOTAL INVESTMENT MANAGEMENT FEES	**$ 10,078,836**	**$ 163,196**	**162**
PROFESSIONAL FEES AND OPERATING EXPENSES			
Custodial Fees	$ 10,078,836	$ 338	0
Professional Fees — External	10,078,836	1,339	1
Investment Administration Expenses — Internal	10,078,836	1,838	2
TOTAL PROFESSIONAL FEES AND OPERATING EXPENSES	**$ 10,078,836**	**$ 3,514**	**3**
TOTAL INVESTMENT EXPENSES	**$ 10,078,836**	**$ 166,710**	**165**

[1] This represents the fair value of investments before the $109.6 million net payable.

Employees' Retirement System of Rhode Island

Schedule of Investment Expenses
Fiscal Year Ended June 30, 2022

INVESTMENT MANAGEMENT FEES BY STRATEGY AND ASSET CLASS

TOTAL GROWTH		
Global Equity		
State Street Global Advisors - Russell 3000	$ 198,424	
State Street Global Advisors - QVM Tilt	842,988	
State Street Global Advisors - MSCI CAD - Commingled Fund	1,875	
State Street Global Advisors - MSCI World ex US - Commingled Fund	132,741	
State Street Global Advisors - MSCI Emerging Markets - Commingled Fund	319,778	
Private Growth		
Private Equity	75,297,411	
Non-Core Real Estate	19,316,552	
Opportunistic Private Credit	6,209,651	$ 102,319,420
INCOME		
Advent US Balanced	11,559	
PIMCO - Liquid Credit	464,832	
Loomis	273,895	
Wellington	649,123	
Neuberger – Equity Options	1,097,966	
Neuberger – CLO Equity Mezzanine	247,402	
Sycamore Tree CLO Fund	1,678,012	
Private Credit	4,834,055	9,256,844
STABILITY		
Crisis Protection Class		
WAMCO – Treasury Long Duration	256,986	
Systematic Trend Following (CPC LLC)	3,826,175	
Inflation Protection		
Core Real Estate	3,175,141	
Private Infrastructure	10,686,524	
State Street Global Advisors – BBG Barclays - TIPS	42,720	
Volatility Protection		
Loomis	867,220	
Fidelity Corporate	554,333	
Absolute Return Hedge Funds	31,587,076	
Payden & Rygel	201,481	51,197,656
OTHER		
Russell Overlay		362,170
Shott Capital/Hamilton Lane		1,475
Other Expenses		58,276
Subtotal - Investment Management Fees by Strategy and Asset Class		**163,195,841**
PROFESSIONAL FEES		
Legal	143,810	
BNY Mellon - Custodial	337,700	
Cliffwater	451,667	
NEPC	395,000	
WTax	30,000	
Institutional Shareholder Services	119,300	
Meketa	198,880	
Subtotal - Professional Fees		**1,676,357**
Subtotal - Investment Management & Professional Fees		**$ 164,872,198**
OPERATING EXPENSES		
Investment Administration - Office of the General Treasurer	$ 1,837,789	
Subtotal - Operating Expenses		**1,837,789**
TOTAL INVESTMENT EXPENSES		**$ 166,709,987**

Employees' Retirement System of Rhode Island
Schedule of Fees and Commissions
Fees & Expenses for Investment Consultants, Managers, Advisors, & Service Providers
Fiscal Year Ended June 30, 2022

Total Growth

Global Equity

State Street Global Advisors	$	1,495,805	
Subtotal - Global Equities	**$**	**1,495,805**	

Private Growth

Non-Core Real Estate			
Crow Retail Fund	$	732,533	
Crow Holdings Realty Partners IX		3,268,633	
Exeter Industrial Value Fund III		675,138	
Exeter Industrial Value Fund V		2,825,827	
GEM Realty Fund V		638,655	
GEM Realty Fund VI		810,305	
IC Berkeley Partners IV		1,736,472	
IC Berkeley Partners V		1,941,969	
Linchris Capital Opportunity Fund II		1,142,268	
Lone Star Real Estate Fund IV		(125,046)	
Raith Real Estate Fund II		3,306,711	
Tri Continental Capital VII		2,794	
Waterton Venture XII		2,360,293	
Subtotal - Non-Core Real Estate	**$**	**19,316,552**	
Opportunistic Private Credit			
Centerbridge Special Credit Partners II	$	14,603	
Clearlake Flagship Plus Partners		148,192	
Clearlake Opportunities Fund II		545,692	
Davidson Kempner LDO Fund IV		4,512,827	
Davidson Kempner LDO Fund V		942,838	
Oaktree European Principal Fund III		44,660	
WLR Recovery Fund IV		839	
Subtotal - Opportunistic Private Credit	**$**	**6,209,651**	
Private Equity			
Advent International GPE VII	$	(813,636)	
Advent International GPE VIII		(1,028,637)	
Advent International GPE IX		2,252,088	
Alta Partners VIII			*
Altaris Constellation Partners IV		757,808	
Altaris Health Partners IV		2,199,491	
Bain Capital Fund X		494,485	
Baring Asia Fund VI		126,359	
Baring Asia Fund VII		2,424,905	
Birch Hill Equity Partners III		63,290	
Braemar Energy Ventures III			*
Carlyle Asia Partners IV		61,450	
Carlyle Asia Partners V		777,159	
Centerbridge Capital Partners		(1,734)	
Centerbridge Capital Partners III		1,273,152	
Charlesbank Equity Fund X		766,332	
Charlesbank Equity Overage Fund X		110,217	
Charterhouse Capital Partners VIII		775	
Constellation Ventures III			*
CVC European Equity Partners III		59,473	
CVC European Equity Partners IV		1,734	
CVC European Equity Partners V		52,523	
CVC Capital Partners VI		1,372,042	
CVC Capital Partners VII		3,434,602	
CVC Capital Partners VIII		1,258,227	
DCVC Bio II		892,612	
EnCap Energy Capital Fund IX		2,167,636	
EnCap Energy Capital Fund X		5,581,691	
EnCap Energy Capital Fund XI		4,449,953	
Endeavour Capital Fund VIII		5,511	
Eureka III		(828,710)	
Eureka IV		586,897	
First Reserve Fund XI		4,826	
GCM Grosvenor Advance Fund		273,722	
German Equity Partners V		958,309	
GGV Discovery III		486,319	
Granite Global Ventures II			*
Granite Global Ventures III			*
GGV Capital VIII		917,488	
GGV Capital VIII Plus		40,344	
Green Equity Investors V		(89,429)	
Hastings Equity Co-Invest		46,935	
Hastings Equity Fund IV		397,838	
Havencrest Healthcare Partners II		555,210	
Industry Ventures Partnership Holdings III		(562,320)	
Industry Ventures Partnership Holdings III-C		608,178	
Industry Ventures Partnership Holdings IV		659,697	
Industry Ventures Partnership Holdings IV-Secondary		1,351,801	
Industry Ventures Partnership Holdings V		3,013,467	
Industry Ventures Partnership Holdings VI		568,158	
Kayne Anderson Energy Fund IV		1,332	
Leapfrog Ventures II		4,141	
Level Equity Growth Partners IV		2,883,763	

Private Growth

Private Equity (continued)			
Level Equity Growth Partners V	$	719,307	
Level Equity Opportunity Fund 2018		1,458,420	
Level Equity Opportunity Fund 2021		36,127	
MHR Institutional Partners III		6,651	
Nautic Partners V		20,756	
Nautic Partners VI		16,829	
Nautic Partners VII		1,504,519	
Nautic Partners VIII		450,106	
Nautic Partners IX		1,238,558	
Nautic Partners X		873,154	
Nordic Capital Fund V		4,176	
Nordic Capital Fund VI		1,692	
Nordic Capital Fund VII		(5,318)	
Nordic Capital Fund VIII		33,919	
Odyssey Partners VI		2,315,521	
Paine Schwartz Food Chain Fund IV		62,963	
Paine Schwartz Food Chain Fund V		3,426,781	
Paladin III		(2,065,210)	
Parthenon Investors II		150,289	
Parthenon Investors VI		976,331	
Point 406 Ventures			*
Pollen Street Capital IV		4,409,815	
Providence Equity Partners V		3,162	
Providence Equity Partners VI		6,206	
Providence Equity Partners VII		136,746	
PSP RI Co-Investment Fund		102,025	
Riverside Capital Appreciation Fund VI		346,400	
Riverside Micro-Cap Fund III		709,161	
Riverside Micro-Cap Fund IV		1,594,982	
Riverside Micro-Cap Fund V		1,294,315	
RLH Investors IV		3,088,172	
Shamrock Capital Growth Fund V		906,669	
Siris IV		3,400,667	
Sorenson Capital Partners III		(34,912)	
Southwest Fund VII		3,886,916	
TCG Crossover Fund		621,765	
Tenex Capital Partners II		2,043,403	
Tenex Capital Partners III		3,961,632	
Thoma Bravo Discover Fund III		1,079,440	
Thoma Bravo Fund XIV		305,498	
Thoma Bravo Fund XV		121,161	
Thomas, McNerney & Partners		5,490	
Thomas, McNerney & Partners II		48,954	
TPG Partners IV		(1,054,895)	
TPG Partners V		1,002	
TPG Partners VI		1,602	
Trilantic Capital Partners IV		19,925	
Vinci III		1,917,826	
Virgo Specialty Finance I		291,461	
W Capital Partners II		44,836	
Wynnchurch Capital V		1,546,493	
Undisclosed Manager fees*		(7,351,551)	
Subtotal - Private Equity	**$**	**75,297,411**	
Subtotal - Total Growth	***$***	***102,319,420***	

Income

Private Credit			
Atalaya Asset Income Fund V	$	873,364	
Atalaya Asset Income Fund Evergreen		61,741	
Benefit Street Senior Opps. II		648,543	
Capital Spring Investment Partners V		775,996	
Capital Spring Investment Partners VI		191,612	
Garrison Opportunity Fund IV		367,591	
HPS Specialty Loan Fund V-L		970,273	
Owl Rock Capital Corp III		755,546	
Shamrock IP Content Fund II		599,328	
Shamrock Content Fund II Co-Invest		37,578	
Summit Partners Credit Fund			*
Summit Partners Credit Fund II			*
Virgo Societas IV		645,315	
Zephyrus Aviation Partners		87,138	
Undisclosed Manager fees*		(1,179,970)	
Subtotal - Private Credit	**$**	**4,834,055**	
Advent US Balanced	$	11,559	
Loomis Sayles - Liquid Credit		273,895	
PIMCO - Liquid Credit		464,832	
Neuberger Berman - Equity Options		1,097,966	
Neuberger Berman - CLO Equity Mezzanine		247,402	
Sycamore Tree CLO Fund		1,678,012	
Wellington Management - EMD		649,123	
Subtotal - Income	***$***	***9,256,844***	

Stability

Crisis Protection

WAMCO - Treasury Long Duration	$	256,986	
Systematic Trend Following (CPC LLC)		3,826,175	
Subtotal - Crisis Protection	**$**	**4,083,161**	

Inflation Protection

Core Real Estate			
AEW Core Property Trust	$	702,079	
Heitman HART		1,173,591	
JP Morgan Strategic Property Fund		99,578	
Morgan Stanley Prime Property Fund		1,199,892	
Subtotal - Core Real Estate	**$**	**3,175,141**	
Private Infrastructure			
IFM Global Infrastructure	$	1,462,312	
ISQ Global Infrastructure Fund		2,165,250	
ISQ Global Infrastructure Fund II		1,801,281	
ISQ Global Infrastructure Fund III		1,417,480	
ISQ GIF III Co-Investment Fund		53,443	
KKR Diversified Core Infrastructure Fund		59,994	
Star America Infrastructure Fund II		331,204	
Stonepeak Infrastructure Fund II		750,576	
Stonepeak Infrastructure Fund Master Co-Investment		6,015	
Stonepeak Infrastructure Fund III		1,254,108	
Stonepeak Infrastructure Fund IV		966,664	
Homestead USA Farmland Fund III		418,197	
Subtotal - Private Infrastructure	**$**	**10,686,524**	
State Street Global Advisors - BBG Barclays - TIPS	$	42,720	
Subtotal - Inflation Protection	**$**	**13,904,384**	

Volatility Protection

Absolute Return Hedge Funds			
Aristeia Partners	$	921,595	
Capula Global Relative Value Fund Ltd.		2,957,765	
Davidson Kempner Institutional Partners		1,586,448	
DE Shaw Composite International Fund		13,529,835	
Elliott Associates		7,086,531	^
Graham Capital		3,385,736	
Viking Global Equities		923,099	^
Undisclosed Manager fees*		1,196,067	
Subtotal - Absolute Return Hedge Funds	**$**	**31,587,076**	
Fidelity Corporate	$	554,333	
Loomis Sayles - Securitized Credit		867,220	
Payden & Rygel		201,481	
	$	**33,210,110**	
Subtotal - Stability	***$***	***51,197,656***	

Other

Russell Overlay	$	362,170
Shott Capital / Hamilton Lane	$	1,475
Other Expenses	$	58,276

Professional Fees

Legal		
Adler Pollock & Sheehan P.C.	$	143,810
Investment Custodian		
BNY Mellon - Defined Benefit Plan	$	337,700
Investment Advisor		
Cliffwater LLC	$	451,667
Meketa		198,880
NEPC LLC		395,000
Subtotal - Investment Advisor	**$**	**1,045,547**
Tax Reclaim		
WTax	$	30,000
Governance		
Institutional Shareholder Services	$	119,300
Subtotal - Professional Fees	***$***	***1,676,357***

Total Investment Management & Professional Fees **$ 164,872,198**

* Due to contractual obligations with the specific investment firm, ERSRI is prohibited from disclosing all fees charged during the fiscal year. Under Treasurer Magaziner's administration, all funds new to the ERSRI portfolio after June of 2015 are required to permit public reporting of their fees and expenses. While funds that receive investment from the State Investment Commission before June of 2015 are grandfathered from the individualized reporting requirements, the Treasurer's office has requested that they voluntarily allow disclosure, which most have agreed to do. Any such grandfathered firms that have not agreed to the voluntary disclosure are those with asterisks in the fee column.

^ Due to contractual obligations with the specific hedge fund, ERSRI is prohibited from disclosing fund expenses. The amounts presented in this schedule represent management and performance fees incurred during the fiscal year.

Note: Negative amounts listed for managers in Private Equity represents a reversal of accrued carried interest that was previously recorded against the NAV based on unrealized increases to the market value. Funds that ERSRI has committed to, but haven't made a first capital call, have been excluded from this schedule.

Employees' Retirement System of Rhode Island
Schedule of Commissions
Fiscal Year Ended June 30, 2022

Broker	*Shares Traded*	*Commissions Paid*
BARCLAYS CAPITAL INC./LE, NEW JERSEY	5,583	$ 38
BARCLAYS CAPITAL, LONDON	315,155	782
BNP PARIBAS PEREGRINE SEC LTD, HONG KONG	62,663	754
BOFA SECURITIES, INC, NEW YORK	10,600	59
BTIG LLC, NEW YORK	9,725	243
CABRERA CAPITAL MARKETS, CHICAGO	43,081	302
CIBC WORLD MKTS INC, TORONTO	187,962	1,044
CITIGROUP GLOBAL MARKETS EURO, FRANKFURT	126,312	177
CITIGROUP GLOBAL MARKETS LTD, LONDON	597,346	1,397
CITIGROUP GLOBAL MARKETS, INC., NEW YORK	187,510	642
CLSA AUSTRALIA PTY LTD, SYDNEY	77,249	402
CREDIT LYONNAIS SECS (ASIA), HONG KONG	1,071,000	611
CREDIT LYONNAIS SECS, SINGAPORE	436,400	1,169
CREDIT SUISSE, LONDON	3,383,185	15,992
CREDIT SUISSE, NEW YORK	305,413	1,036
GOLDMAN SACHS & CO, NY	2,174,072	96,069
GOLDMAN SACHS AUSTRALIA PTY LTD,MELBOURN	91,023	616
GOLDMAN SACHS INTL, LONDON	4,673,026	12,036
INSTINET CLEARING SER INC, NEW YORK	1,900	13
INSTINET EUROPE LIMITED, LONDON	3,303,237	8,670
ITG AUSTRALIA LTD, MELBOURNE	957,426	2,640
ITG CANADA CORP, TORONTO	19,477	106
J P MORGAN SEC, SYDNEY	632,709	684
J P MORGAN SECS LTD, LONDON	580,143	2,775
J.P MORGAN SECURITIES INC, NEW YORK	349,624	883
J.P. MORGAN SECURITIES, HONG KONG	789,719	820
JEFFERIES & CO LTD, LONDON	1,059,427	2,941
JPMORGAN SECURITIES INC, NEW YORK	12,948	70
LEERINK SWANN AND COMPANY, NEW YORK	3,503	140
LOOP CAPITAL MARKETS, JERSEY CITY	1,916,146	13,413
MACQUARIE BANK LIMITED, SYDNEY	362,849	687
MACQUARIE CAPITAL LTD, LONDON	2,032,927	2,904
MACQUARIE SECURITIES LTD, AUCKLAND	120,921	110
MACQUARIES SECURITIES AUSTRALIA, SYDNEY	1,237,440	2,104
MERRILL LYNCH GILTS LTD, LONDON	181,400	411
MERRILL LYNCH INTL LONDON EQUITIES	209,529	116
MERRILL LYNCH PIERCE FENNER SMITH INC NY	2,239,486	7,118
MISCHLER FINANCIAL GROUP INC, NEW YORK	21,300	149
MORGAN J P SECS INC, NEW YORK	(924)	4,392
MORGAN STANLEY & CO, LONDON	90,511	131
MORGAN STANLEY AND CO., LLC, NEW YORK	339,732	6,568
PERSHING SECURITIES LTD, LONDON	3,007,321	14,547
PIPER JAFFRAY & CO., JERSEY CITY	300	2
RBC DOMINION SECS INC, TORONTO	76	0
ROYAL BANK OF CANADA, TORONT	(7)	27
SANFORD C BERNSTEIN & CO INC, LONDON	43,969	195
SCOTIA CAPITAL MKTS, TORONTO	78,598	427
SG SECURITIES, HONG KONG	781,597	2,499
UBS EQUITIES, LONDON	3,749,089	550
UBS SECURITIES CANADA, TORONTO	7,243	39
UBS SECURITIES LLC, STAMFORD	19,441	134
UBS WARBURG ASIA LTD, HONG KONG	759,182	867
UBS WARBURG AUSTRALIA EQUITIES, SYDNEY	67,908	1,533
VIRTU AMERICAS LLC, NEW YORK	5,452	38
WILLIAMS CAPITAL GROUP LP, JERSEY CITY	1,548,947	10,843
Total	***40,287,851***	***$ 222,917***

Actuarial Section

Actuary's Certification

General Information

Summary of Benefit Provisions

Actuarial Assumptions and Methods

Solvency Test

Schedule of Funding Progress

Schedule of Employees Added to and Removed from Rolls

Analysis of Financial Experience

Schedule of Active Member Valuation Data

P: 469.524.0000 | www.grsconsulting.com

December 20, 2022

Retirement Board
50 Service Avenue, 2nd Floor
Warwick, RI 02886-1021

Members of the Board:

At the request of the Employees' Retirement System of Rhode Island (ERSRI), Gabriel Roeder Smith & Company (GRS) has performed the actuarial valuation for each of the retirement systems administered by ERSRI. The information in the Actuarial Section is based on our annual actuarial valuation reports, with the most recent valuations conducted as of June 30, 2021, and is intended to be used in conjunction with the full reports. The actuarial information in the Financial Section is based on our GASB Statement No. 67 actuarial valuation reports as of June 30, 2022, and is intended to be used in conjunction with the full reports. The valuation reports were approved by the Board.

This letter and the schedules listed below represent GRS' certification of the funded status as required for the financial report for the fiscal year ended June 30, 2022. GRS prepared the following schedules (information prior to 2016 was provided by ERSRI):

- Net Pension Liability of Employers
- Discount Rate Sensitivity
- Schedule of Changes in the Net Pension Liability
- Schedule of Net Pension Liability
- Schedule of Employer Contributions
- Schedule of Active Member Valuation Data
- Schedule of Retirees Added to and Removed from Rolls
- Analysis of Financial Experience
- Solvency Test
- Schedule of Funding Progress
- Retired Members by Benefit Type
- Average Benefit Payments

Data

The ERSRI staff supplied data for retired, active and inactive members as of June 30, 2021. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. The ERSRI staff also supplied asset data as of June 30, 2021.

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

Actuarial Assumptions and Methods

The assumptions used are based on the 2020 Actuarial Experience Investigation Study for the six–year period ending June 30, 2019, approved by the Board on May 22, 2020. Please refer to the June 30, 2021 actuarial valuations for further discussion on the assumption changes. We believe the assumptions are internally consistent and are reasonable, based on the actual experience of ERSRI.

The results of the actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities and the calculated contribution rates.

The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in Governmental Accounting Standards Board (GASB) Statement Number 67. We believe the assumptions are internally consistent and are reasonable, based on the actual experience of ERSRI.

Furthermore, the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice.

Benefits

The benefit provisions reflected in this valuation are those which were in effect on June 30, 2021, and there have been no changes to the benefit provisions since the preceding valuation.

Funding Policy and Objectives

The actuarial cost method and the amortization periods are set by statute. Normal cost rate (as a percent of pay) and actuarial accrued liabilities are computed using the Entry Age Normal actuarial cost method. The employer contribution rate is the sum of two pieces: the employer normal cost rate and the amortization rate. The employer normal cost rate is the difference between the normal cost rate and the member contribution rate. The amortization rate, also determined as a level percent of pay, is the amount required to amortize the unfunded actuarial accrued liability over a closed period. The amortization rate is adjusted for the two-year deferral in contribution rates.

Certification

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Rhode Island state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

The undersigned are independent actuaries. All are Members of the American Academy of Actuaries. They all meet the Qualification Standards of the American Academy of Actuaries and they are experienced in performing valuations for large public retirement systems.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Joseph P. Newton, FSA, EA, MAAA
Pension Market Leader and Actuary

Paul T. Wood, ASA, MAAA, FCA
Senior Consultant and Actuary

Yi Chen, ASA, EA, MAAA
Senior Analyst and Actuary

General Information

As required in Rhode Island General Laws, the defined benefit plans within the Employees' Retirement System of Rhode Island (ERSRI) are required to have a certified actuary perform the actuarial valuation of each Plan.

The primary purpose of the actuarial valuation is to provide an amount that the employers should contribute to the Plans, which is referred to as the Annual Required Contribution (ARC). The ARC consists of two components. First, for each fiscal year, the actuary calculates an amount that will be necessary to pay the actuarial estimate of retirement benefits earned in that fiscal year (which is referred to as the "Normal Cost"). Second, in each actuarial valuation, the actuary calculates the funding status of each of the Plans (also known as a "Funded Ratio"), develops a schedule for restoring the funding status of the Plans to 100%, and then includes that fiscal year's portion of that schedule into the calculation of the ARC.

Responsibilities of ERSRI Board

As required in Rhode Island General Laws the employer contribution rates for each Plan are certified annually by the ERSRI Board. These rates are determined actuarially, based on the Plans' provisions, actuarial assumptions, and statutorily approved methodologies in effect as of the valuation date. The Board's current policy is that the contribution rates determined by a given actuarial valuation become effective two years after the valuation date. For example, the rates determined in the June 30, 2021 valuation will be applicable for the fiscal year beginning July 1, 2022 and ending June 30, 2024.

The Retirement Board is required to approve, based on both the recommendations of the actuary and prescribed in Rhode Island General Law, the actuarial methods and assumptions used in the preparation of the actuarial funding valuations. These assumptions include, but are not limited to, mortality, service, economic (investment return, wage inflation, etc.), demographic, and other assumptions.

Actuarial Experience Investigation Studies are conducted every three years by the actuary for the Plans within ERSRI. The actuary will provide a discussion of recent experience, present potential recommendations for new actuarial assumptions and methods, and provide information about the actuarial impact of these recommendations on the liabilities and other key actuarial measures. The study will be conducted in accordance with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The actuaries preparing the study will have to meet the Qualification Standards of the American Academy of Actuaries. The Board will consider the recommendations and impact of the results of these studies when approving the assumptions and methods to be used in the actuarial funding valuations of each Plan.

For the actuarial valuation for the fiscal year ending June 30, 2022, the methods and assumptions used in the preparation of the valuation were based on the recommendations in the experience study (for the six-year period ending June 30, 2019) that were approved by the Board on May 22, 2020.

The Retirement Board will conduct an actuarial audit every five to seven years, or if the Board hires a new actuary firm. The basic objectives of the audit are to determine if the valuation results provided by the existing actuary are accurate, if the valuation results are based upon reasonable actuarial assumptions and methods and if they are in compliance with Actuarial Standards of Practice. Finally, is the actuarial information being provided to ERSRI comprehensive enough to assess the present and future financial status of the System.

Actuarial Schedules and Reports

A copy of the June 30, 2021 actuarial valuation report for each Trust is available on our website at www.ersri.org.

Employees' Retirement System (ERS)
Summary of Plan & Benefit Provisions

1. Effective Date and Authority: The Employees' Retirement System of Rhode Island (ERSRI) became effective on July 1, 1936 for State Employees and on July 1, 1949 for Teachers. Benefits for State Employees are described in Rhode Island General Laws, Title 36, Chapter 36-10, and benefits for Teachers are described in Rhode Island General Laws, Title 16, Chapter 16-16.

2. Plan Year: A twelve-month period ending June 30th.

3. Administration: ERSRI is administered by the State of Rhode Island Retirement Board. However, the State Investment Commission is responsible for the investment of the trust assets, including the establishment of the asset allocation policy.

4. Type of Plan: ERSRI is a qualified governmental defined benefit retirement plan. Separate contribution rates are determined for state employees and for teachers. For Governmental Accounting Standards Board purposes, it is a cost-sharing multiple employer plan.

5. Eligibility: Most Rhode Island state employees and certified public school teachers participate in ERSRI. Certain employees of the Airport Corporation, the Economic Development Corporation, and the Narragansett Bay Commission participate in the plan as though they were state employees. State police officers, state judges, and teachers and administrators in the public colleges and universities are covered by their own separate systems, and are therefore excluded. Certain elected state officials are excluded unless they make an election to join ERSRI. Superintendents, principals, business agents and other administrators participate as teachers. Non-certified public school employees, such as teacher's aides, janitors, secretaries, and bus drivers, cannot participate in ERSRI, although they may be covered by the Municipal Employees Retirement System (MERS) or a separate plan maintained by the town or city. Eligible employees become members as of their date of employment.

6. Employee Contributions: Effective July 1, 2012, State Employees (excluding Correctional Officers) and Teachers contribute 3.75% of their salary per year. For State Employees and Teachers with 20 or more years of service as of June 30, 2012 the contribution rate beginning July 1, 2015 will be 11.0%. Correctional Officers contribute 8.75% of their salary per year. The state "picks up" the members' contributions for its employees under the provisions of Internal Revenue Code (IRC) Section 414(h). At their option, the city or town employing a Teacher may also pick up their members' contributions.

7. Salary: Salary includes the member's base earnings plus any payments under a regular longevity or incentive plan. Salary excludes overtime, unused sick and

vacation leave, severance pay, and other extraordinary compensation. Certain amounts that are excluded from taxable wages, such as amounts sheltered under a Section 125 plan or amounts picked up by the employer under IRC Section 414(h), are not excluded from salary.

8. Employer Contributions: For Teachers, the state contributes 40% of the employer contribution rate and the city, town or other local employer contributes the remaining 60%. (This basic 40-60 split is further adjusted, since the State bears the cost of repaying certain amounts taken from the trust in the early 1990's.) Contributions determined in a given actuarial valuation go into effect two years after the actuarial valuation.

   In fiscal years beginning after June 30, 2005, if the State's contribution on behalf of State Employees decreases, the State shall appropriate an additional amount to the retirement trust. Such amount shall be equal to 20% of any decrease in expected contributions.

9. Service: Employees receive credit for service while a member. In addition, a member may purchase credit for certain periods, such as time spent teaching at a public school in another state, by making an additional contribution to purchase the additional service and those costs will be determined at full actuarial value, except for purchases of military service and redeposits of previously refunded contributions. Special rules and limits govern the purchase of additional service and the contribution required.

10. Final Average Compensation (FAC): For members eligible to retire as of September 30, 2009, their Final Average Compensation (FAC) will be based on the highest three consecutive annual salaries. For members not eligible to retire as of September 30, 2009, their FAC will be based on the highest five consecutive years of salary. Monthly benefits are based on one-twelfth of this amount.

11. Retirement

    a. Eligibility: As of July 1, 2012, retirement eligibility dates will be as follows.

       (i) Members with less than five years of contributory service as of June 30, 2012 and members hired on or after that date are eligible for retirement on or after their Social Security normal retirement age.

       (ii) Members who had at least five years of contributory service as of June 30, 2012 will be eligible for retirement at an individually determined age. This age is the result of interpolating between the member's Article 7 Retirement Date, described in Section 11(b) below, and the retirement age applicable to members hired after June 30, 2012 in (i) above. The interpolation is based on service as of June 30, 2012 divided by projected service at the member's Article 7 Retirement Date. The minimum retirement age is 59.

(iii) Members with 10 or more years of contributory service on June 30, 2012 may choose to retire at their Article 7 Retirement Date if they continue to work and contribute until that date. If option is elected, the retirement benefit will be calculated using the benefits you have accrued as of June 30, 2012, i.e., the member will accumulate no additional defined benefits after this date, but the benefit will be paid without any actuarial reduction.

(iv) Effective July 1, 2015, members will be eligible to retire with full benefits at the earlier of their current RIRSA date described in sections (i) – (iii) above or upon the attainment of age 65 with 30 years of service, age 64 with 31 years of service, age 63 with 32 years of service, or age 62 with 33 years of service.

(v) A member who is within five years of reaching their retirement eligibility date, described in this section, and has 20 or more years of service, may elect to retire at any time with a reduced benefit. The reduction is 9% for year 1, 8% for year 2, and 7% for each year thereafter.

(vi) Nurses (RNs) employed by MHRH are eligible to retire when they are at least 55 years old and have a minimum of 25 years of contributing service.

(vii) Correctional officers are eligible to retire when they are at least 55 years old and have a minimum of 25 years of contributing service. If a member has 25 years of service as of June 30, 2012, they may retain their Article 7 Retirement Date. Correctional officers who do not work for 25 years will not receive their pension benefit until they reach their Social Security normal retirement age.

b. Article 7 Retirement Date (member's retirement date as of September 30, 2009):

(i) Grandfathered Schedule A members—members with at least 10 years of contributory service at June 30, 2005 and eligible for retirement at September 30, 2009—are eligible to retire on or after age 60 if they have credit for 10 years of service, or at any age if they have credit for 28 years of service.

(ii) Correctional officers who have reached age 50 and have credit for 20 years of service as of September 30, 2009 are eligible to retire and are grandfathered.

(iii) Nurses (RNs) employed by MHRH who have reached age 50 with 25 years of service by September 30, 2009 are eligible to retire and are grandfathered.

(iv) Schedule B members—members with less than 10 years of contributory service as of June 30, 2005 and members hired on or after that date—are eligible for retirement on or after age 65 if they have credit for 10 years of service, or on or after age 62 if they have credit for 29 years of service. In addition, a member who attains age 62 with at least 20 years of service credit may retire with an actuarially reduced retirement benefit. The reduction is based on the difference between 65 and the member's age at retirement.

(v) Correctional officers who are hired after September 30, 2009 become eligible to retire when they have reach age 55 and have credit for 25 years of service.

(vi) Nurses (RNs) employed by MHRH who are hired after September 30, 2009 become eligible when they have reach age 55 and have credit for 25 years of service.

(vii) Schedule A members who are not grandfathered, i.e., members who had at least 10 years of creditable service at June 30, 2005 but who were not eligible to retire on September 30, 2009, will be eligible for retirement at an individually determined age. This age is the result of interpolating between the retirement age under the rules applicable to grandfathered employees in (i) above and the retirement age applicable to members hired after September 30, 2009 in (iv) above. The interpolation is based on service as of September 30, 2009 divided by projected service at the retirement age under (i) above.

(viii) Correctional officers hired on or before September 30, 2009 who are not eligible for retirement at that date will have an individually determined retirement age. This age is the result of interpolating between the retirement age for grandfathered employees in (ii) above and the retirement age applicable to members hired after September 30, 2009 in (v) above.

(ix) Similarly, MHRH nurses (RNs) hired on or before September 30, 2009 who are not eligible to retire at that date will have an individually determined retirement age. This age is the result of interpolating between the retirement age for grandfathered employees in (iii) above and the retirement age applicable to members hired after September 30, 2009 in (vi) above.

c. Monthly Benefit: Upon retirement, members are eligible to commence a benefit determined as the sum of:

(i) Benefit accrual of 1.0% per year for all service after June 30, 2015 unless the member had 20 or more years of service as of June 30, 2012 in which case the benefit accrual is 2.0% per year for service after June 30, 2015, and

(ii) Benefit accrual of 1.0% per year for all service from July 1, 2012 through June 30, 2015, and

(iii) Benefit accruals earned as of June 30, 2012, described in Section (d), below.

For purposes of calculating benefit accruals for service after June 30, 2012, the FAC is determined through retirement. Additionally, Correctional Officers who have completed 25 years of service on or before June 30, 2012 will continue to receive the benefit accrual rate under previous law for years 31 through 35 of service.

d. Benefit accruals earned as of June 30, 2012: The retirement benefit is a percentage of the member's monthly FAC. This percentage is a function of the member's service as described below. For purposes of determining the benefit accruals earned as of June 30, 2012, the service and FAC are frozen as of June 30, 2012.

(i) For grandfathered Schedule A members (members with at least 10 years of contributory service at June 30, 2005 and eligible for retirement at September 30, 2009), benefits are based under this schedule (Schedule A):

For Service In:	Years	Benefit Percentage Earned
The first 10 years of service	1 – 10	1.7% per year
The next 10 years of service	11 – 20	1.9% per year
The next 14 years of service	21 – 34	3.0% per year
The next 1 year of service	35	2.0% per year

The maximum benefit is 80% of FAC.

(ii) For Schedule B members (members with less than 10 years of contributory service as of June 30, 2005) and for all future hires, benefits are based on the following schedule (Schedule B):

For Service In:	**Years**	**Benefit Percentage Earned**
The first 10 years of service	1 – 10	1.6% per year
The next 10 years of service	11 – 20	1.8% per year

The next 5 years of service	21 – 25	2.0% per year
The next 5 years of service	26 – 30	2.25% per year
The next 7 years of service	31 – 37	2.50% per year
The next 1 year of service	38	2.25% per year

The maximum benefit is 80% of FAC.

(iii) For Schedule A members who are not grandfathered, i.e., members who had at least 10 years of creditable service at June 30, 2005 but who were not eligible to retire on September 30, 2009, benefits are based on Schedule A (under (i) above) for service through September 30, 2009 and on Schedule B (under (ii) above) for service after September 30, 2009. The maximum benefit is 80% of FAC.

(iv) MHRH nurses receive a benefit determined under the appropriate formula above.

(v) Correctional Officers receive a benefit computed under a different formula:

For Service In:	**Years**	**Benefit Percentage Earned**
The first 30 years of service	1 – 30	2.0% per year
The next 1 year of service	31	6.0% per year
The next 1 year of service	32	5.0% per year
The next 1 year of service	33	4.0% per year
The next 1 year of service	34	3.0% per year
The next 14 years of service	35	2.0% per year

Members with less than 25 years of service as of June 30, 2012 receive a flat 2.0% per year of service for years 1-30, 3.0 per year of service for years 31-35, and 2.0% per year of service in excess of 35. The maximum benefit for correctional officers is the greater of the benefit accrual as of June 30, 2012 or 75% of FAC.

e. Payment Form: Benefits are paid as a monthly life annuity. Optional forms of payment are available; see Item 16 below.

f. Death benefit: After retirement, death benefits are based on the form of annuity elected. If no option is elected, i.e., if payments are made as a life annuity, there is a minimum death benefit equal to the sum of the member's contributions without interest, less the sum of the monthly benefit payments made before the member's death. In addition, a lump-sum death benefit is payable upon the death of any retired member, regardless of option elected. This lump sum is equal to a percentage of the lump-sum death benefit that was available to the member at the time of retirement. The percentage is 100% in the first year of retirement, 75% in the second year, 50% in the third year, and 25% in the fourth and subsequent years of retirement. However, in no event will the lump sum death benefit be less than $4,000.

12. Disability Retirement

a. Eligibility: A member is eligible provided he/she has credit for at least five years of service or if the disability is work-related. Members are not eligible for an ordinary disability benefit if they are eligible for unreduced retirement.

b. Ordinary Disability Benefit: The benefit payable under the retirement formula, using FAC and service at the time of disability, but not less than 10 years of service.

c. Accidental Disability Benefit:

(i) For applications filed before or on September 30, 2009: An annual annuity equal to two- thirds (66 2/3%) of salary at the time of disability.

(ii) For applications filed after September 30, 2009: An accidental disability will be available at two-thirds (66 2/3%) of salary for members who are permanently and totally disabled from engaging in any occupation as determined by the retirement board. If the member is eligible for an accidental disability benefit but deemed able to work in other jobs, the benefit is limited to fifty percent (50%) of salary.

(iii) Benefits will be subject to an annual review by ERSRI.

d. Payment Form: The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump-sum to the member's beneficiary. All alternative forms of payment except for the Social Security Option are permitted in the case of disability retirement.

13. Deferred Termination Benefit

a. Eligibility: A member with at least five years of service is vested. A vested member who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

b. Monthly Benefit: The monthly benefit is based on the retirement formula described above. Both FAC and service are determined at the time the member leaves active employment. Benefits may commence when the member has met the requirements for a retirement benefit.

c. Payment Form: The same as for Retirement above.

d. Death Benefit before retirement: A member who dies after leaving active service but before retiring is entitled to receive a benefit as described below in item 15.

e. Death Benefit after Retirement: The same as for Retirement above.

14. Withdrawal (Refund) Benefit

a. Eligibility: All members leaving covered employment with less than five years of service are eligible. Optionally, vested members (those with five or more years of service) may withdraw their accumulated contributions in lieu of the deferred benefits otherwise due.

b. Benefit: The member who withdraws receives a lump-sum payment equal to the sum of his/her employee contributions. No interest is credited on these contributions.

15. Death Benefit of Active or Inactive Members

a. Eligibility: Death must have occurred while an active or an inactive, non-retired member.

b. Basic Benefit: Upon the death of a nonvested member, or upon the death of an inactive, vested member, or upon the death of an active, unmarried member, a refund of the member's contributions (without interest) is paid. Upon the death of a vested, married, active member, the spouse may elect (i) the refund benefit described above, or (ii) a life annuity paid to the spouse or beneficiary. The amount of the annuity is equal to the amount which would have been paid had the member retired at the time of his death and elected the Joint and 100% Survivor option. If the member was not eligible for retirement, the annuity benefit is reduced 9% per year from the date at which the member would have been eligible had he or she remained in service.

c. Lump-sum Benefit: $800 per year of service, with a maximum benefit of $16,000 and a minimum of $4,000. This benefit is only available to active members.

d. Accidental Duty-related Death Benefit: If a member dies as the result of an accident while in the course of his or her duties, in lieu of the above benefits the member's spouse may elect to receive (i) a refund of all contributions made (including interest), and (ii) an annual life annuity equal to 50% of the member's salary at the time of death. The annuity benefit stops when the spouse remarries or dies, although it may be continued to any children under age 18 or to any dependent parents.

16. Optional Forms of Payment: In addition to a life annuity, ERSRI offers members these optional forms of payment on an actuarially equivalent basis:

    a. Option 1 (Joint and 100% Survivor) - A life annuity payable while either the participant or his beneficiary is alive.

    b. Option 2 (Joint and 50% Survivor) - A life annuity payable to the member while both the member and beneficiary are alive, reducing to 50% of this amount if the member predeceases the beneficiary.

    c. Social Security Option – An annuity paid at one amount prior to age 62, and at a reduced amount after age 62, designed to provide a level total income when combined with the member's age 62 Social Security benefit. Benefits cease upon the member's death. This option is only available for members with at least 10 years of contributory service as of June 30, 2005.

    Actuarial equivalence is based on tables adopted by the Employees' Retirement Board.

17. Post-retirement Benefit Increase:

    a. For members with at least 10 years of contributory service as of June 30, 2005 who are retired or eligible to retire as of September 30, 2009, and for all members receiving a disability retirement benefit on that date: a 3.00% compound increase in their retirement benefit each year, beginning in January of the year in which the member reaches the third anniversary of retirement. This increase is not a function of actual increases in the cost of living.

    b. For other members who were retired or were eligible to retire as of June 30, 2010: a compound increase in their retirement benefit each year equal to the increase in the CPI, effective on each anniversary date beginning on the third anniversary of retirement. This increase is limited to 3.00%.

c. For other members who were not retired or eligible to retire as of June 30, 2010: a compound increase in their first $35,000 of annual retirement benefit each year equal to the increase in the CPI, effective on each anniversary date beginning on the later of the member's third anniversary of retirement and the month following their 65th birthday. This increase is limited to 3.00%. Additionally, the $35,000 annual COLA limit is applicable for benefits paid in 2010 and would be indexed annually to increase in the same manner as COLAs for Schedule B members (CPI increase for the year, not greater than 3.00%).

d. For members who retire after June 30, 2012: members will be eligible to receive cost of living increases at the later of the member's third anniversary of retirement and the month following their SSNRA.

e. Effective July 1, 2012, the following provisions will apply to all members:

   (i) The COLA will be suspended for all state employees, teachers, BHDDH nurses, correctional officers, judges and state police until the aggregate funding level of their plans exceeds 80%; however, an interim COLA will be granted in four-year intervals while the COLA is suspended. The first interim COLA may begin January 1, 2017.

   (ii) Effective July 1, 2015, the COLA is determined based on 50% of the plan's five-year average investment rate of return less 5.0% limited to a range of 0.0% to 4.0%, plus 50% of the lesser of 3.0% or last year's CPI-U increase for a total maximum increase of 3.50%. Previously, it was the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%

   (iii) The COLA will be limited to the first $25,000 of the member's annual pension benefit. For retirees and beneficiaries who retired on or before July 1, 2015, years in which a COLA is payable based on the every fourth year provision described in (i) above will be limited to the first $30,000. These limits will be indexed annually to increase in the same manner as COLAs, with the known values of $25,000 for 2013, $25,000 for 2014, $25,168 for 2015, $25,855 for 2016, $26,098 for 2017, $26,290 for 2018, $26,687 for 2019, $27,184 for 2020, $27,608 for 2021, $27,901 for 2022 and $28,878 for 2022.

f. In addition to the scheduled increases described in section (e) above, there will be a one-time 2% COLA paid in FY2016 on the first $25,000 of pension benefit for all retirees and beneficiaries who retired on or before June 30, 2012. There will also be two one-time stipends of $500 payable in FY2016 and FY2017 to retirees and beneficiaries who retired on or before June 30, 2015.

Teachers' Survivors Benefit Plan (TSB)
Summary of Plan & Benefit Provisions

1. Plan: The Teachers' Survivors Benefit Plan (TSB) is a qualified governmental plan designed to provide death benefits in the form of a monthly annuity to survivors of covered employees and retirees.

2. Authority: Benefits under the TSB are established by the Rhode Island General Laws, Sections 16-16-25 through 16-16-38

3. Administration: The TSB is administered by the Retirement Board for the Employees' Retirement System of Rhode Island (ERSRI). However, the State investment commission is responsible for the investment of the trust assets, including the establishment of the asset allocation policy.

4. Trust Fund: All contributions are credited to the Teachers' Survivors Benefits Fund, and all benefit payments and refunds are paid from this fund. The fund is commingled with ERSRI for investment purposes.

5. Plan Year: A twelve-month period ending June 30.

6. Coverage and Eligibility: The TSB covers Rhode Island teachers who are (i) covered by the Employees' Retirement System of Rhode Island (ERSRI) but (ii) are not covered under Social Security. State employees, school support personnel, and teachers whose employment is covered by Social Security may not participate. Participation is mandatory for eligible teachers, and all teachers covered by the plan must make contributions. Survivors are eligible for benefits if the member has made contributions for at least six months prior to death or retirement. A covered teacher remains covered after retirement unless the teacher withdraws his or her contributions.

7. Districts Covered: The following school districts are not covered under Social Security, so all of their teachers participate in this plan:

Barrington	Johnston
Bristol/Warren Regional	Lincoln
Burrillville	Little Compton
Central Falls Collaborative	Middletown
Coventry	Newport
Cranston	North Smithfield
Cumberland	Northern RI Collaborative
East Greenwich	Portsmouth
East Providence	Scituate
Foster	Smithfield
Foster-Glocester	Tiverton
Glocester	Westerly

In addition, there are a number of active teachers who teach for districts that are now covered by Social Security, but at one time were not covered. When the district elected to be covered by Social

Security, some teachers opted to remain outside that system. These teachers continue to participate in the TSB.

8. Contributions: An annual contribution of 2% of salary, up to $230 per year, is required. This contribution is divided equally between members and their employers. I.e., members contribute 1.00% of salary, up to $115 per year.

9. Salary: For TSB, the salary used for contribution purposes and to determine the amount of the survivor benefit is the same salary used for ERSRI.

10. Benefit Schedule: Benefits are paid as a monthly annuity to survivors upon the death of a covered active teacher or a covered retiree. To determine the benefit payable in any situation, the basic monthly spouse's benefit must first be determined. The basic monthly spouse's benefit is a function of the member's highest annual salary, as shown in the following schedule:

Highest Annual Salary	Basic Monthly Spouse's Benefit
$17,000 or less	$ 825.00
$17,001 - $25,000	$ 962.50
$25,001 - $33,000	$ 1,100.00
$33,001 - $40,000	$ 1,237.50
More than $40,000	$ 1,375.00

If the member is retired at the time of death, the salary used is the highest annual salary that the member earned while teaching.

11. Spouse's benefit: If a covered, married, active or retired member dies, the spouse is entitled to receive the basic monthly spouse's benefit. If there are other survivors entitled to benefits, as described below, this benefit may be increased. The benefit paid to the spouse may not begin prior to age 60, unless family benefits are payable. Benefits to the spouse cease if the spouse remarries.

12. Family Benefit: If at the time of the member's death, the member is married and there are one or more eligible children, then a monthly benefit is payable to the spouse, even if younger than age 60. An eligible child is one under age 18, or under age 23 if a full-time student, or any age, if disabled prior to age 18. The family benefit is a multiple of the basic monthly spouse's benefit. If there is only one eligible child, then the multiple is 150%. If there are two or more eligible children, the multiple is 175%. The benefit continues as long as the spouse is alive and there is at least one eligible child. If the spouse remarries, benefits cease, although children's benefits will be due if there are still eligible children. If family benefits cease because there are no children who remain eligible, spouse's benefits will be paid when the spouse reaches age 60, if he or she has not remarried.

13. Children's Benefits: If a covered member dies, and there is no eligible spouse but there are one or more eligible children, then a child's benefit is payable. The amount payable by the plan is a multiple of the basic monthly spouse's benefit: 75% if there is only one eligible child, 150% if there are two eligible children, and 175% if there are three or more eligible children. Benefits cease when there are no children eligible.

14. Dependent Parent's Benefits: If a member dies with no surviving spouse and no eligible children, but the member has a dependent parent, a benefit equal to the basic monthly spouse's benefit is paid to the dependent parent for life. For this purpose, a dependent parent is one who:

a. Is at least 60 years of age,

b. Was dependent on the member for at least half his or her support,

c. Has not remarried since the member's death, and

d. Is not entitled to Social Security benefit from his or her own earnings equal to or greater the TSB benefit

15. Summary of benefits: The following table summarizes the benefit multiples that apply in the different family situations:

Recipients	Multiple of Basic Spouse's Benefit
Spouse alone	100%
Spouse and 1 Child	150%
Spouse and 2 or More Children	175%
One Child Alone	75%
Two Children Alone	150%
Three or More Children Alone	175%
Dependent Parent	100%

16. Refunds: If, prior to retirement, a member terminates service in ERSRI or ceases to be covered under TSB for any other reason, a refund equal to the sum of the member's TSB contributions will be paid to him or her. No interest is credited on these contributions.

If a covered, active teacher dies without an eligible spouse, eligible child or dependent parent, the accumulated member contribution balance, with interest credited at 5.00%, is refunded to the member's beneficiary or estate.

At the time a member retires, the member must choose whether or not to remain covered under the TSB during retirement. If the member chooses not to remain covered, then a refund of the member's contributions, accumulated with interest at 5.00%, is paid to the member. If the member chooses to remain covered, no action is necessary. Retired members who do not elect a refund at the time of retirement may not later elect a refund.

If a covered retired teacher dies without an eligible spouse, eligible child or dependent parent, no benefit is payable, and the member's contribution account remains in the fund.

17. Post-retirement Benefit Increases: Spouses over age 60 receive a cost-of-living adjustment (COLA), each year, in January. The COLA is expressed as a percentage increase in the benefit, equal to the percentage cost-of-living increase provided to Social Security recipients. This increase is a function of increases in the Consumer Price Index. No COLA is paid on children's or family benefits.

Municipal Employees' Retirement System (MERS)
Summary of Plan & Benefit Provisions

1. Authority: The Municipal Employees' Retirement System (MERS) covers employees of certain participating Rhode Island municipalities and other local governmental units, such as housing authorities, water districts, etc. Benefits are described in Rhode Island General Laws, Title 45, Chapters 19, 19.1, 21, 21.1, 21.2, and 21.3.

2. Plan Year: A twelve-month period ending June 30th.

3. Administration: MERS is administered by the State of Rhode Island Retirement Board. However, the State Investment Commission is responsible for the investment of the trust assets, including the establishment of the asset allocation policy.

4. Type of Plan: MERS is a qualified governmental defined benefit retirement plan. Separate contribution rates are determined for each participating governmental unit. For Governmental Accounting Standards Board purposes, it is an agent multiple-employer plan.

5. Eligibility: General employees, police officers and firefighters employed by electing municipalities participate in MERS. Teachers and administrators are covered by the separate Employees' Retirement System of Rhode Island, but other school employees may be covered by MERS. Eligible employees become members at their date of employment. Anyone employed by a municipality at the time the municipality joins MERS may elect not to be covered. Elected officials may opt to be covered by MERS. Employees covered under another plan maintained by the municipality may not become members of MERS. Police officers and/or firefighters may be designated as such by the municipality, in which case the special contribution and benefit provisions described below will apply to them, or they may be designated as general employees with no special benefits. Members designated as police officers and/or firefighters are treated as belonging to a unit separate from the general employees, with separate contribution rates applicable.

6. Employee Contributions: Effective July 1, 2012, General employees contribute 1.00% of their salary per year, and police officers and firefighters contribute 7.00%. General MERS active members with 20 years of service as of June 30, 2012 will contribute 8.25% beginning July 1, 2015. Also, beginning July 1, 2015, MERS Police and Fire active members will contribute 9.00%. In addition, if the municipality has elected one of the optional cost-of-living provisions, an additional member contribution of 1.00% of salary is required. The municipality, at its election, may choose to "pick up" the members' contributions for its employees under the provisions of Internal Revenue Code (IRC) Section 414(h).

7. Salary: Salary includes the member's base earnings plus any payments under a regular longevity or incentive plan. Salary excludes overtime, unused sick and vacation leave, severance pay, and other extraordinary compensation. Certain amounts that are excluded from taxable wages, such as amounts sheltered under a Section 125 plan or amounts picked up by the employer under IRC Section 414(h), are not excluded from salary.

8. Employer Contributions: Each participating unit's contribution rate is determined actuarially. Contributions determined in a given actuarial valuation go into effect two years after the actuarial valuation.

9. Service: Employees receive credit for service while a member. In addition, a member may purchase credit for certain periods by making an additional contribution to purchase the additional service. Special rules and limits govern the purchase of additional service and the contribution required.

10. Final Average Compensation (FAC): Prior to July 1, 2012 and for general employee members eligible to retire as of June 30, 2012, the average was based on the member's highest three consecutive annual salaries. Effective July 1, 2012, the average was based on the member's highest five consecutive annual salaries. Once a member retires or is terminated, the applicable FAC will be the greater of the member's highest three year FAC as of July 1, 2012 or the five year FAC as of the retirement/termination date. Monthly benefits are based on one-twelfth of this amount.

11. Retirement

    a. General employees: Eligibility

        (i) Members with less than five years of contributory service as of June 30, 2012 and members hired on or after that date are eligible for retirement on or after their Social Security normal retirement age.

        (ii) Members who had at least five years of contributory service as of June 30, 2012 will be eligible for retirement at an individually determined age. This age is the result of interpolating between the member's prior Retirement Date, described in Section (e) below, and the retirement age applicable to members hired after June 30, 2012 in (a) above. The interpolation is based on service as of June 30, 2012 divided by projected service at the member's prior Retirement Date. The minimum retirement age is 59.

        (iii) Members with 10 or more years of contributory service on June 30, 2012 may choose to retire at their prior Retirement Date if they continue to work and contribute until that date. If option is elected, the retirement benefit will be calculated using the benefits accrued as of June 30, 2012, i.e., the member will accumulate no additional defined benefits after this date, but the benefit will be paid without any actuarial reduction.

        (iv) Effective July 1, 2015, members will be eligible to retire with full benefits at the earlier of their current RIRSA date described in sections (a) – (c) above or upon the attainment of age 65 with 30 years of service, age 64 with 31 years of service, age 63 with 32 years of service, or age 62 with 33 years of service.

        (v) A member who is within five years of reaching their retirement eligibility date, as described in this section, and has 20 or more years of service, may elect to retire at any time with an actuarially reduced benefit.

(vi) Prior to July 1, 2012, members were eligible for retirement on or after age 58 if they had credit for 10 or more years of service, or at any age if they had credit for at least 30 years of service. Members eligible to retire before July 1, 2012 were not impacted by the changes to retirement eligibility above.

b. General employees: Monthly Benefit

2.00% of the member's monthly FAC for each year of service prior to July 1, 2012 and 1.00% of the member's monthly FAC for each year of service from July 1, 2012 through June 30, 2105. 1.0% per year for all service after June 30, 2015 unless the member had 20 or more years of service as of June 30, 2012 in which case the benefit accrual is 2.0% per year for service after June 30, 2015. The benefit cannot exceed 75% of the member's monthly FAC

c. Police and Fire employees: Eligibility

(i) Members are eligible to retire when they are at least 50 years old and have a minimum of 25 years of contributing service or if they have 27 years of contributing service at anyage. Members with less than 25 years of contributing service are eligible for retirement on or after their Social Security normal retirement age.

(ii) Members who, as of June 30, 2012, had at least 10 years of contributing service, had attained age 45, and had a prior Retirement Date (described in Section (e)) before age 52 may retire at age 52.

(iii) Active members on June 30, 2012 may choose to retire at their prior Retirement Date if they continue to work and contribute until that date. If option is elected, the retirement benefit will be calculated using the benefits accrued as of June 30, 2012, i.e., the member will accumulate no additional defined benefits after this date, but the benefit will be paid without any actuarial reduction.

(iv) A member who is within five years of reaching their retirement eligibility date, as described in this section, and has 20 or more years of service, may elect to retire at any time with an actuarially reduced benefit.

(v) Prior to July 1, 2012, members designated as police officers or firefighters were eligible for retirement at or after age 55 with credit for at least 10 years of service or at any age with credit for 25 or more years of service. Members were also eligible to retire and receive a reduced benefit if they are at least age 50 and have at least 20 years of service. If the municipality elected to adopt the 20-year retirement provisions for police officers and/or firefighters, then such a member was eligible to retire at any age with 20 or more years of service. Members eligible to retire before July 1, 2012 were not impacted by the changes to retirement eligibility above.

d. Police and Fire employees: Monthly Benefit

  (i) 2.00% of the member's monthly FAC for each year of service, up to 37.5 years (75% of FAC maximum)

  (ii) If the optional 20-year retirement provisions were adopted by the municipality prior to July 1, 2012: 2.50% of the member's monthly FAC for each year of service prior to July 1, 2012 and 2.00% of the member's monthly FAC for each year of service after July 1, 2012. The benefit cannot exceed 75% of the member's monthly FAC.

  (iii) Active members (including future hires), members who retire after July 1, 2015 and after attaining age 57 with 30 years of service will have a benefit equal to the greater of their current benefit described in (a) and (b) above and one calculated based on a 2.25% multiplier for all years of service.

e. Payment Form: Benefits are paid as a monthly life annuity. Optional forms of payment are available; see item 16. Below.

f. Death Benefit

  (i) a. After retirement, death benefits are based on the form of annuity elected. If no option is elected, i.e., if payments are made as a life annuity, there is a minimum death benefit equal to the sum of the member's contributions without interest, less the sum of the monthly benefit payments made before the member's death. In addition, a lump-sum death benefit is payable upon the death of any retired member, regardless of option elected. This lump sum is equal to a percentage of the lump-sum death benefit that was available to the member at the time of retirement. The percentage is 100% in the first year of retirement, 75% in the second year, 50% in the third year, and 25% in the fourth and subsequent years of retirement. However, in no event will the lump sum death benefit be less than $4,000.

  (ii) Special Police/Fire Death Benefit: A member that does not elect an optional form of payment at retirement will be eligible the active member death benefit, which is an annuity of 30% of the member's salary that will be paid to the member's spouse upon death, for life or until remarriage. Children's benefits may also be payable.

12. Disability Retirement

   a. Eligibility: A member is eligible for a disability retirement provided he/she has credit for at least five years of service or if the disability is work-related. Members are not eligible for an ordinary disability benefit if they are eligible for unreduced retirement.

   b. Ordinary Disability Benefit: The benefit payable under the retirement formula, using FAC and service at the time of disability, but not less than 10 years of service.

   c. Occupational Disability Benefit: An annual annuity equal to two-thirds of salary at the time of disability.

   d. Payment Form: The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump-sum to the member's beneficiary. All alternative forms of payment except for the Social Security Option are permitted in the case of disability retirement.

13. Deferred Termination Benefit

   a. Eligibility: A member with at least ten years of service is vested. Effective July 1, 2012, a member with at least 5 years of service is vested. A vested member who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

   b. Monthly Benefit: The monthly benefit is based on the retirement formula described above. Both FAC and service are determined at the time the member leaves active employment. Benefits may commence at Social Security normal retirement age provided that the member has met the requirements for a retirement benefit.

   c. Payment Form: The same as for Retirement above.

   d. Death Benefit before retirement: A member who dies after leaving active service but before retiring is entitled to receive a benefit as described below in Item 15.

   e. Death Benefit after Retirement: The same as for Retirement above.

14. Withdrawal (Refund) Benefit

   a. Eligibility: All members leaving covered employment with less than ten years (5 years, effective July 1, 2012) of service are eligible. Optionally, vested members (described in Item 13, above) may withdraw their accumulated contributions in lieu of the deferred benefits otherwise due.

b. Benefit: The member who withdraws receives a lump-sum payment equal to the sum of his/her employee contributions. No interest is credited on these contributions.

15. Death Benefit of Active or Inactive Members

a. Eligibility: Death must have occurred while an active member or while an inactive, non-retired member. The basic benefit plus the lump-sum benefit are paid on behalf of an active, general employee, and the special police/fire benefit and the lump-sum benefit are paid on behalf of an active police officer or firefighter. If the death was due to accidental, duty-related causes, the accidental death benefit is paid regardless of whether the employee is a general employee, a police officer, or a firefighter. Inactive members receive a refund of their accumulated contributions without interest.

b. Basic Benefit: Upon the death of a non-vested member, or upon the death of a vested, inactive member, or upon the death of an active, unmarried member, a refund of the member's contributions (without interest) is paid. Upon the death of a vested, married, active member, the spouse may elect (i) the refund benefit described above, or (ii) a life annuity paid to the spouse or beneficiary. The amount of the annuity is equal to the amount which would have been paid had the member retired at the time of his death and elected the Joint and 100% Survivor option. If the member was not eligible for retirement, the annuity benefit is reduced 9% per year from the date at which the member would have been eligible had he or she remained in service.

c. Lump-sum Benefit: $800 per year of service, with a maximum benefit of $16,000 and a minimum of $4,000. This benefit is only available to active members.

d. Special Police/Fire Death Benefit: In lieu of the basic benefit above, if a police officer or firefighter dies while an active member, an annuity of 30% of the member's salary will be paid to the member's spouse, for life or until remarriage. Children's benefits may also be payable.

e. Accidental Duty-related Death Benefit: If a member dies as the result of an accident while in the course of his or her duties, in lieu of the above benefits the member's spouse may elect to receive (i) a refund of all contributions made (including interest), and (ii) an annual life annuity equal to 50% of the member's salary at the time of death. The annuity benefit stops when the spouse remarries or dies, although it may be continued to any children under age 18 or to any dependent parents.

16. Optional Forms of Payment: In addition to a life annuity, MERS offers members these optional forms of payment on an actuarially equivalent basis:

    a. Option 1 (Joint and 100% Survivor) - A life annuity payable while either the participant or his beneficiary is alive.

    b. Option 2 (Joint and 50% Survivor) - A life annuity payable to the member while both the member and beneficiary are alive, reducing to 50% of this amount if the member predeceases the beneficiary.

    c. Social Security Option – An annuity paid at one amount prior to age 62, and at a reduced amount after age 62, designed to provide a level total income when combined with the member's age 62 Social Security benefit. Benefits cease upon the member's death.

    Actuarial equivalence is based on tables adopted by the Employees' Retirement Board.

17. Post-retirement Benefit Increase: For members who retire after June 30, 2012: members will be eligible to receive cost of living increases at the later of the member's third anniversary of retirement and the month following their SSNRA (age 55 for members designated as police officers and/or firefighters). When a municipality elects coverage, it may elect either COLA C (covering only current and future active members and excluding members already retired) or COLA B (covering current retired members as well as current and future active members).

    a. The COLA will be suspended for any unit whose funding level is less than 80%; however, an interim COLA may be granted in four-year intervals while the COLA is suspended. The first interim COLA may begin January 1, 2018.

    b. Effective July 1, 2015, the COLA is determined based on 50% of the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%, plus 50% of the lesser of 3.0% or last year's CPI-U increase for a total maximum increase of 3.50%. Previously, it was the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%.

    c. The COLA will be limited to the first $25,000 of the member's annual pension benefit. For retirees and beneficiaries who retired on or before July 1, 2015, years in which a COLA is payable based on the every fourth year provision described in (i) above will be limited to the first $30,000. These limits will be indexed annually to increase in the same manner as COLAs, with the known values of $25,000 for 2013, $25,000 for 2014, $25,168 for 2015, $25,855 for 2016, $26,098 for 2017, $26,290 for 2018, $26,687 for 2019, $27,184 for 2020, $27,608 for 2021, and $27,901 for 2022.

18. Special Provisions Applying to Specific Units: Prior to July 1, 2012, some units had specific provisions that apply only to that unit. The transition rules outlined in Item 11, above, apply to these units in a similar manner.

    The following summarizes those provisions:

    a. Rhode Island General Law §45-21.2-22.1 contains special provisions that apply to employees of Burrillville Police, but only if adopted by the Town of Burrillville. The Town adopted these provisions effective July 1, 2006. Under these special provisions, the retirement benefit for a member with 20 or more years of service is improved. The new formula is 60.00% x Final Average Compensation (FAC), plus 1.50% x FAC x Years of Service in Excess of 20, with a maximum benefit equal to 75% of FAC. In addition to this benefit change, the member contribution rate increased from 9.00% to 10.20%.

    b. Rhode Island General Law § 45-21.2-6.1, § 45-21.2-5(5), and § 45-21.2-14(d) contain special provisions that apply to members of the South Kingstown police department. Under these special provisions, the member receives a retirement allowance which is a life annuity terminable at the death of the annuitant, and is an amount equal to the sum of two and one- half percent (2.5%) of final compensation multiplied by the years of service accrued after July 1, 1993 and two percent (2%) of final compensation multiplied by the years of service accrued prior to July 1, 1993. The annual retirement allowance in no event shall exceed seventy-five percent (75%) of final compensation. The member contribution rate is 8.00%, plus 1.00% for the adoption of the optional COLA, for a total of 9.00%.

    c. Rhode Island General Law § 45-21.2-5 (9) contains special provisions that apply to members of the Hopkinton police department. Under these special provisions, the final compensation for benefit computation is based on the members' highest year of earnings. In addition, the members shall receive a three percent (3%) escalation of their pension payment compounded each year on January 1st following the year of retirement and continuing on an annual basis on that date. The member contribution rate is 9.00%. Compensation for benefit purposes includes base, longevity, and holiday pay.

    d. Rhode Island General Law § 45-21.2-5 (7) and § 45-21.2-14 contain special provisions that apply to members of the Cranston fire department hired after July 1, 1995 or with less than 5 years of service at that date. Under these special provisions, the final compensation for benefit computation is based on the members' highest year of earnings. In addition, the members shall receive a three percent (3%) escalation of their pension payment compounded each year on January 1st following the year of retirement and continuing on an annual basis on that date. The member contribution rate is 10.00%. Compensation for benefit purposes includes base, longevity, and holiday pay.

e. Rhode Island General Law §§ 45-21.2-5 (8) and § 45-21.2-14 contain special provisions that apply to members of the Cranston police department hired after July 1, 1995 or with less than 5 years of service at that date. Under these special provisions, the final compensation for benefit computation is based on the members' highest year of earnings. In addition, the members shall receive a three percent (3%) escalation of their pension payment compounded each year on January 1st following the year of retirement and continuing on an annual basis on that date. The member contribution rate is 10.00%. Compensation for benefit purposes includes base, longevity, and holiday pay.

f. Rhode Island General Law §§ 45-21.2-6.3 contains special provisions that apply to employees of Richmond Police. The Town adopted these provisions on April 3, 2008, effective July 1, 2008. Under these special provisions, members are eligible to retire after attaining 22 years of service. The retirement benefit for a member with 22 or more years of service was improved to 50.00% x Final Average Compensation (FAC), plus 2.2727% x FAC x Years of Service in Excess of 22, with a maximum benefit equal to 75% of FAC.

State Police Retirement Benefits Trust (SPRBT)
Summary of Plan & Benefit Provisions

1. Effective Date and Authority: The State Police Retirement Benefits Trust (SPRBT) became effective on July 1, 1989 for State police officers originally hired on or after July 1, 1987. Benefits are described in Rhode Island General Laws, Title 42, Chapter 28.

2. Plan Year: A twelve-month period ending June 30th.

3. Administration: The State Police Retirement Benefits Trust is administered by the State of Rhode Island Retirement Board. However, the State Treasurer is responsible for the investment of the trust assets, including the establishment of the asset allocation policy. Assets are commingled for investment purposes with those of the Employees' Retirement System of Rhode Island and various other plans and programs.

4. Type of Plan: The State Police Retirement Benefits Trust is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is a single-employer plan.

5. Eligibility: All State police officers, and the Superintendent of State Police, hired on or after July 1, 1987, participate in this plan. Benefits for State police officers hired before July 1, 1987 are being paid by the State from the general assets of the State, on a pay-as-you-go basis. Eligible employees become members at their date of employment.

6. Salary for Contribution Purposes: Salary includes the member's base earnings plus any payments under a regular longevity or incentive plan. Salary excludes, unused sick and vacation leave, severance pay, and other extraordinary compensation. Members may contribute on up to 400 hours of overtime during their final averaging period to be included in the determination of their benefit. Certain amounts that are excluded from taxable wages, such as amounts sheltered under a Section 125 plan or amounts picked up by the employer under IRC Section 414(h), are not excluded from salary.

7. Employee Contributions: State police officers contribute 8.75% of their salary per year. The State "picks up" the members' contributions for its employees under the provisions of Internal Revenue Code (IRC) Section 414(h).

8. Employer Contributions: The State contributes an actuarially determined percentage of the member's annual salary. Contributions determined in a given actuarial valuation go into effect two years after the actuarial valuation.

9. Service: Employees receive credit for service while a member. In addition, a member may purchase credit for certain periods by making an additional contribution to purchase the additional service. Special rules and limits govern the purchase of additional service and the contribution required.

10. Final Salary (Salary for Benefit Purposes): Final Salary includes base pay, longevity increases, up to 400 hours of overtime pay, holiday pay and the member's clothing allowance. For members who work more than 25 years, their Final Salary shall not be more than the Final Salary in the 25th year.

11. Final Average Compensation (FAC): For members eligible to retire after June 30, 2012, their FAC will be based on the average of the highest five consecutive years of compensation, which includes base pay, longevity, up to 400 hours of overtime pay and holiday pay.

12. Retirement

a. Eligibility:
   (i) Members other than Superintendent of State Police can retire on or after the attainment of a 50% benefit multiplier.
   (ii) The Superintendent of State Police may retire on or after age 60 if he has credit for 10 years of service.

b. Monthly Benefit:
   (i) For members hired before June 30, 2007:
      (1) For members eligible to retire as of June 30, 2012, their benefit multiplier will be two and one half percent (2.5%) for a member's first twenty (20) total years, plus three percent (3%) for years after 20. Their monthly benefit will be Final Salary times the benefit multiplier divided by 12.
      (2) For members who become eligible to retire after July 1, 2012, their benefit multiplier will be two and one half percent (2.5%) for a member's years of service prior to July 1, 2012, plus two percent (2%) for years thereafter. Their monthly benefit will be FAC times the benefit multiplier divided by 12.
   (ii) For members hired after June 30, 2007: Their benefit multiplier is two percent (2.0%) for all years of service. Their monthly benefit will be FAC times the benefit multiplier divided by 12.
   (iii) The Superintendent of State Police receives a minimum benefit of 50% of FAC. The member also earns an additional 3% of FAC for each year of service in excess of 25.
   (iv) In no event shall a member's original retirement allowance exceed sixty-five percent (65%) of FAC.
   (v) Benefits accrued as of June 30, 2012 are protected.

c. Payment Form: Benefits are paid as a monthly life annuity. There are no optional forms of payment available.

d. Death benefit: After the death of a retired member, if the member was married, a benefit will be paid to the spouse equal to 2.00% of the member’s Final Salary for each year of service. There is a minimum benefit of 25% of Final Salary. Benefits are increased one-third for each dependent child. The maximum benefit is 50% of Final Salary. Benefits may not begin before the spouse is age 40, and benefits stop upon the spouse’s death or remarriage. Effective July 1, 2012, death benefits will be based on FAC, and not Final Salary.

13. Disability Retirement

a. Eligibility: A member is eligible if the disability is work-related. (Non work-related disabilities result in a refund.)

b. Occupational Disability Benefit: 75% of Final Salary.

c. Payment Form: The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity. The same provisions that apply upon the death of a retired member apply upon the death of a disabled member.

14. Refunds

a. Eligibility: All members leaving covered employment prior to eligibility for other benefits.

b. Benefit: A lump-sum payment equal to the sum of his/her employee contributions. No interest is credited on these contributions.

15. Death Benefit of Active Members

a. Eligibility: Death must have occurred from a service-related cause, or the member must have 10 or more years of service.

b. Ordinary Benefit: After the death of an active member, if the member was married, a benefit will be paid to the spouse equal to 2.00% of the member's Final Salary for each year of service. There is a minimum benefit of 25% of Final Salary. Benefits are increased one-third for each dependent child. The maximum benefit is 50% of Final Salary. Benefits may not begin before the spouse is age 40 without a dependent child, and benefits stop upon the spouse's death or remarriage. Effective July 1, 2012, death benefits will be based on FAC, and not Final Salary.

c. Duty-related Death Benefit: 75% of Final Salary, paid to the spouse or other dependent relative. Benefits cease when the spouse or other relatives die or are no longer dependent.

16. Post-retirement Benefit Increase:

a. The first COLA will be granted at the later of age 55 and the member's third anniversary of retirement for retirees as of June 30, 2012 and the later of SSNRA and the member's third anniversary of retirement for all other current and future retirees.
b. Effective July 1, 2012, the following provisions will apply to all members:
   (i) The COLA will be suspended for all state employees, teachers, BHDDH nurses, correctional officers, judges and state police until the aggregate funding level of their plans exceeds 80%; however, an interim COLA will be granted in four-year intervals while the COLA is suspended. The first interim COLA may begin January 1, 2017.
   (ii) Effective July 1, 2015, the COLA is determined based on 50% of the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%, plus 50% of the lesser of 3.0% or last year's CPI-U increase for a total maximum increase of 3.50%. Previously, it was the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%

   (iii) The COLA will be limited to the first $25,000 of the member's annual pension benefit. For retirees and beneficiaries who retired on or before July 1, 2015, years in which a

COLA is payable based on the every fourth year provision described in (i) above will be limited to the first $30,000. These limits will be indexed annually to increase in the same manner as COLAs, with the known values as follows:

Year	COLA Limit
2014	$ 25,000
2015	$ 25,168
2016	$ 25,855
2017	$ 26,098
2018	$ 26,291
2019	$ 26,687
2020	$ 27,184
2021	$ 27,608
2022	$ 27,901
2023	$ 28,878

c. In addition to the increases described in section (b) above, there will be a one-time 2% COLA paid in FY2016 on the first $25,000 of pension benefit for all retirees and beneficiaries who retired on or before June 30, 2012. There will also be two one-time stipends of $500 payable in FY2016 and FY2017 to retirees and beneficiaries who retired on or before June 30, 2015.

Judicial Retirement Benefits Trust (JRBT)
Summary of Plan & Benefit Provisions

1. Effective Date and Authority: The Judicial Retirement Benefits Trust (JRBT) became effective on January 1, 1990 for judges hired on or after that date. Benefits are described in Rhode Island General Laws, Title 8, Chapters 3, 8, and 16, Title 28, Chapter 30, and Title 31, Chapter 43.

2. Plan Year: A twelve-month period ending June 30th.

3. Administration: The Judicial Retirement Benefits Trust is administered by the State of Rhode Island Retirement Board. However, the State Investment Commission is responsible for the investment of the trust assets, including the establishment of the asset allocation policy. Assets are commingled for investment purposes with those of the Employees' Retirement System of Rhode Island and various other plans and programs.

4. Type of Plan: The Judicial Retirement Benefits Trust is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is a single-employer plan.

5. Eligibility: All judges or justices of the Supreme Court, a superior court, a district court, a family court, an administrative adjudication court or a workers' compensation court participate in this plan if they were hired on or after January 1, 1990. (These are referred to collectively as state judges.) Benefits for state judges hired before January 1, 1990 are being paid by the state from the general assets of the state, on a pay-as-you-go basis. Eligible state judges become members at their date of employment.

6. Salary: Contributions are based on the judge's salary. Benefits are based on the judge's salary at the time of retirement.

7. Employee Contributions: State judges contribute 8.75% of their salary per year. Effective July 1, 2012, State judges (excluding justices of supreme, superior, family, and district courts) will contribute 12.00% of their salary per year. Active justices of supreme, superior, and family courts as of June 30, 2011 contribute the rate in effect as of June 30, 2012. The State "picks up" the members' contributions for its employees under the provisions of Internal Revenue Code (IRC) Section 414(h).

8. Employer Contributions: The State contributes an actuarially determined percentage of the member's annual salary. Contributions determined in a given actuarial valuation go into effect two years after the actuarial valuation.

9. Final Average Compensation (FAC)

a. For judges who became members on or before July 2, 1997, one-twelfth of the judge's annual salary at the time of retirement.

b. For judges who became members after July 2, 1997 but before July 1, 2009, one-twelfth of the average of the judge's highest three consecutive annual salaries.

c. For judges who became members on or after July 1, 2009, one-twelfth of the average of the judge's highest five consecutive annual salaries.

d. Benefits for death while an active member are based on the member's salary at the time of death, regardless of when the judge became a member.

10. Full Retirement

a. Eligibility: All judges are eligible for unreduced retirement at or after age 65 if the judge has served for 20 years, or at or after age 70 after 15 years of service.

b. Monthly Benefit:
   (i) Judges who were appointed prior to January 1, 2009 receive 100% of FAC at retirement.
   (ii) Judges who were appointed on or after January 1, 2009 but prior to July 1, 2009 receive 90% of FAC at retirement, and take an additional 10% reduction to 80% of FAC at retirement if they wish to elect the spouse's death benefit.
   (iii) Judges who were appointed on or after July 1, 2009 receive 80% of FAC at retirement, or 70% of FAC at retirement if they wish to elect the spouse's death benefit.

c. Payment Form: Benefits are paid as a monthly life annuity. Members appointed prior to January 1, 2009 automatically receive the spouse's death benefit described below. Members appointed on or after January 1, 2009 must elect to a reduced benefit as described above if they wish to receive the spouse's death benefit. There are no other optional forms of payment available.

d. Death Benefit: After the death of a retired member, if the member was married, 50% of the retiree's benefit is paid to the surviving spouse for life (or until remarriage) if spouse's death benefit is elected. (No election or benefit reduction is required for members appointed prior to January 1, 2009.)

11. Reduced Retirement

a. Eligibility: A judge is eligible for a reduced retirement benefit at age 65 if the judge has served for 10 years, or at any age after 20 years of service.

b. Reduced Retirement Benefit:
   (i) For judges who were appointed prior to January 1, 2009: 75% of FAC at retirement.
   (ii) For judges who were appointed on or after January 1, 2009 but prior to July 1, 2009: receive 70% of FAC at retirement, or take an additional 10% reduction to 60% of FAC at retirement if they wish to elect the spouse's death benefit.
   (iii) For judges who were appointed on or after July 1, 2009: receive 65% of FAC at retirement, or 55% of FAC at retirement if they wish to elect the spouse's death benefit.

c. Payment Form: Same as for Full Retirement.

d. Death Benefit: Same as for Full Retirement.

12. Refunds

a. Eligibility: All judges leaving covered employment for a reason other than death or retirement.

b. Benefit: A lump-sum payment equal to the sum of his/her employee contributions. No interest is credited on these contributions.

13. Death Benefit of Active Members

After the death of an active member, if the member was married, a benefit will be paid to the spouse until his/her death or remarriage. The benefit is equal to 25% of the judge's salary at death if the member had less than seven years of service. If the judge had at least seven but less than 15 years of service, the benefit is equal to 1/3 of the judge's salary at death. If the judge had at least 15 years of service or if the judge was eligible for retirement, the spouse receives 50% of the judge's salary at death. Benefits are payable until the spouse's death or remarriage. Benefits may be paid to any minor children after the death of the spouse. If an active member dies without having a spouse or minor children, a refund is paid to the member's beneficiary.

14. Post-retirement Benefit Increase:

a. For members who retired or will be eligible for retirement as of June 12, 2010: members receive an increase equal to 3.00% of the original benefit each year, beginning in January of the year in which the member reaches the third anniversary of retirement. The increase applies to both retirement and death benefits. This increase is not tied in any way to actual increases in the cost of living. (Judges of the administrative adjudication and workers compensation courts receive a compound 3.00% increase, rather than a simple 3.00% increase.)

b. For members who are or were formally justices of supreme, superior, family, and district courts and were not retired or were not eligible to retire as of June 12, 2010: The member will receive the first COLA upon the later of their third anniversary of retirement or when the member reaches age 65. The annual increase in the member's benefit will be equal to the lesser of their original benefit and the COLA limit in effect in the year the member retires, multiplied by the percentage increase in CPI up to a maximum of 3.0% per year. The COLA will be provided on a simple basis. The applicable annual COLA limit will be $35,000 in 2010, and increase annually by the percentage increase in the Consumer Price Index (CPI) up to a maximum of 3.0% per year. No COLA would be paid on any part of the annual benefit in excess of this limit. The annual increase in the COLA limit will be determined on a compound basis.

c. For members who are or were formally judges of the administrative adjudication court, traffic tribunal, and workers' compensation court and were not retired or were not eligible to retire as of June 12, 2010: The member will receive the first COLA upon the later of their third anniversary of retirement or when the member reaches age 65. The annual increase in the member's benefit will be equal to the lesser of the current benefit and the current COLA limit, multiplied by the percentage increase in CPI up to a maximum of 3.0% per year. The COLA will be provided on a compound basis. The applicable annual COLA limit will initially be $35,000, and increase annually by the percentage increase in the Consumer Price Index (CPI) up to a maximum of 3.0% per year. No COLA would be paid on any part of the annual benefit in excess of this limit. The annual increase in the COLA limit will be determined on a compound basis.

d. For members who retire after June 30, 2012: members will be eligible to receive cost of living increases at the later of the member's third anniversary of retirement and the month following their SSNRA.

e. Effective July 1, 2012, the following provisions will apply to all members:
    (i) The COLA will be suspended for all state employees, teachers, BHDDH nurses, correctional officers, judges and state police until the aggregate funding level of their plans exceeds 80%; however, an interim COLA will be granted in four-year

intervals while the COLA is suspended. The first interim COLA may begin January 1, 2017.

(ii) Effective July 1, 2015, the COLA is determined based on 50% of the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%, plus 50% of the lesser of 3.0% or last year's CPI-U increase for a total maximum increase of 3.50%. Previously, it was the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%

(iii) The COLA will be limited to the first $25,000 of the member's annual pension benefit. For retirees and beneficiaries who retired on or before July 1, 2015, years in which a COLA is payable based on the every fourth year provision described in (i) above will be limited to the first $30,000. These limits will be indexed annually to increase in the same manner as COLAs, with the known values of $25,000 for 2013, $25,000 for 2014, $25,168 for 2015, $25,855 for 2016, $26,098 for 2017, and $27,472 for 2022.

f. In addition to the scheduled increases described in section (e) above, there will be a one-time 2% COLA paid in FY2016 on the first $25,000 of pension benefit for all retirees and beneficiaries who retired on or before June 30, 2012. There will also be two one-time stipends of $500 payable in FY2016 and FY2017 to retirees and beneficiaries who retired on or before June 30, 2015.

Rhode Island Judicial Retirement Fund Trust (RIJRFT)
Summary of Plan & Benefit Provisions

The benefit provisions reflected in this valuation are those which were in effect on June 30, 2021. The benefit provisions are summarized in Appendix B in the June 30, 2021 actuarial valuation of the JRBT dated December 10, 2021.

State Police Retirement Fund Trust (SPRFT)
Summary of Plan & Benefit Provisions

The benefit provisions reflected in this valuation are those which were in effect on June 30, 2021. The benefit provisions are summarized in Appendix B in the June 30, 2021 actuarial valuation of the SPRBT dated December 10, 2021.

Employees' Retirement System (ERS)
Summary of Actuarial Methods and Assumptions

I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation uses the Entry Age actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial accrued liability (UAAL).

1. First, the actuarial present value of future benefits is determined by discounting the projected benefits for each member back to the valuation date using the assumed investment return rate as the discount rate. For active members, the projected benefits are based on the member's age, service, gender and compensation, and based on the actuarial assumptions. The calculations take into account the probability of the member's death, disability, or termination of employment prior to becoming eligible for a retirement benefit, as well as the possibility of the member will remain in service and receive a service retirement benefit. Future salary increases are anticipated. The present value of the expected benefits payable to all active members is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits. Liabilities for future members are not included.

2. The employer contributions required to support the benefits are determined as a level percentage of salary, and consist of a normal contribution and an amortization contribution.

3. The normal contribution is determined using the Entry Age Normal method. Under this method, a calculation is made to determine the rate of contribution which, if applied to the compensation of each individual member during the entire period of anticipated covered service, would be required to meet the cost of all benefits payable on his behalf. The salary-weighted average of these rates is the normal cost rate. This calculation reflects the plan provisions that apply to each individual member.

4. The employer normal cost rate is equal to (i) the normal cost rate, minus (ii) the member contribution rate.

5. The actuarial accrued liability is equal to the present value of all benefits less the present value of future normal costs. The present value of the supplemental member contributions for members with 20 years of service as of June 30, 2012 is also subtracted. The unfunded actuarial accrued liability (UAAL) is then determined as (i) the actuarial accrued liability, minus (ii) the actuarial value of assets.

6. The amortization contribution rate is the level percentage of payroll required to reduce the UAAL to zero over the remaining amortization period. The employer contribution rate determined by this valuation will not be effective until two years after the valuation date. The determination of the contribution rate reflects this deferral. The amortization payment for the applicable fiscal year is first determined based on the individual amortization bases. The covered payroll is projected forward for two years, and we then determine the amortization rate by dividing the amortization payment by the projected payroll. Contributions are assumed to be made monthly throughout the year.

   The UAAL was initially being amortized over the remainder of a closed 30-year period from June 30, 1999. In conjunction with The Rhode Island Retirement Security Act of 2011, the amortization period was reset to 25 years as of June 30, 2010 for the UAAL that existed at that time. In addition, in conjunction with the Article 21 legislation, the amortization period for the local portion of the UAAL of the Teacher's Plan existing as of June 30, 2014 was reset to 25 years from June 30, 2014. New gains and losses each year will be amortized over individual 20 year periods. At any time that the System is in an overfunded status, the amortization schedule will be a rolling 20 year amortization of any surplus.

III. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continue to be recognized on their original timeframe. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 7.00% per year, compounded annually, composed of an assumed 2.50% inflation rate and a 4.50% net real rate of return. This rate represents the assumed return, net of all investment and administrative expenses.

2. Salary increase rate:

   For State Employees: The sum of (i) a 3.25% wage inflation assumption (composed of a 2.50% price inflation assumption and a 0.75% additional general increase), and (ii) a service-related component as shown on next page.

   For Teachers: The sum of (i) a 3.00% wage inflation assumption (composed of a 2.50% price inflation assumption and a 0.50% additional general increase), and (ii) a service-related component as shown on next page.

Salary Increase Rates						
	State Employees		Correctional Officers		Teachers	
Service	Service-Related Component	Total Increase	Service-Related Component	Total Increase	Service-Related Component	Total Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	1.00%	4.25%	2.00%	5.25%	10.00%	13.00%
2	2.00%	5.25%	3.00%	6.25%	9.00%	12.00%
3	3.00%	6.25%	4.00%	7.25%	6.25%	9.25%
4	2.75%	6.00%	3.75%	7.00%	5.50%	8.50%
5	2.75%	6.00%	3.75%	7.00%	5.00%	8.00%
6	2.50%	5.75%	3.50%	6.75%	5.00%	8.00%
7	1.25%	4.50%	2.25%	5.50%	4.50%	7.50%
8	1.00%	4.25%	2.00%	5.25%	4.25%	7.25%
9	1.00%	4.25%	2.00%	5.25%	4.00%	7.00%
10	1.00%	4.25%	2.00%	5.25%	4.00%	7.00%
11	1.00%	4.25%	1.50%	4.75%	0.00%	3.00%
12	2.00%	5.25%	2.50%	5.75%	0.00%	3.00%
13	1.25%	4.50%	1.75%	5.00%	0.00%	3.00%
14	1.00%	4.25%	1.50%	4.75%	0.00%	3.00%
15	1.00%	4.25%	1.50%	7.75%	0.00%	3.00%
16	1.00%	4.25%	1.00%	4.25%	0.00%	3.00%
17	0.50%	3.75%	1.00%	4.25%	0.00%	3.00%
18	0.50%	3.75%	1.00%	4.25%	0.00%	3.00%
19	0.50%	3.75%	1.00%	4.25%	0.00%	3.00%
20	0.50%	3.75%	1.00%	4.25%	0.00%	3.00%
21	0.50%	3.75%	1.00%	4.25%	0.00%	3.00%
22	0.25%	3.50%	1.00%	4.25%	0.00%	3.00%
23	0.25%	3.50%	1.00%	4.25%	0.00%	3.00%
24	0.25%	3.50%	1.00%	4.25%	0.00%	3.00%
25 or more	0.00%	3.25%	0.00%	3.25%	0.00%	3.00%

3. Salary increases are assumed to occur once a year, on July 1. Therefore the pay used for the period year following the valuation date is equal to the reported pay for the prior year, increased by the salary increase assumption. For employees with less than one year of service, the reported rate of pay is used rather than the fiscal year salary paid.

4. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.00% for State Employees and 2.50% for Teachers per year. This increase rate is solely due to the effect of wage inflation on, with no allowance for future membership growth.

5. Post-retirement Benefit Increase: Post-retirement benefit increases are assumed to be 2.10%, per annum, while the plan has a funding level that exceeds 80%; however, an interim COLA will be granted in four-year intervals while the COLA is suspended. The second such COLA will be applicable in Calendar Year 2021. As of June 30, 2021, it is assumed that the COLAs will be suspended through 2027 due to the current funding level of the plans. The actual amount of the COLA is determined based on 50% of the plan's five-year average investment rate of return minus 5.00% which will range from zero to 4.0%, and 50% of the lesser of 3% or last year's CPI-U increase for a total maximum increase of 3.50%.

B. Demographic Assumptions

1. Post-termination mortality rates (non-disabled)

a. Male state employees: PUB-10 Median Table for Healthy General Employee Males, loaded by 115%, projected with Scale Ultimate MP16.

b. Female state employees: PUB-10 Median Table for Healthy General Employee Females, loaded by 111%, projected with Scale Ultimate MP16.

c. Male teachers: PUB-10 Median Table for Healthy Teacher Males, loaded by 108%, projected with Scale Ultimate MP16.

d. Female teachers: PUB-10 Median Table for Healthy Teacher Females, loaded by 115%, projected with Scale Ultimate MP16.

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

Life Expectancy for an Age 65 Retiree in Years					
Group	Year of Retirement				
	2020	2025	2030	2035	2040
State Employee - Male	20.7	21.1	21.5	21.9	22.3
State Employee - Female	23.5	23.9	24.3	24.7	25.0
Teacher – Male	22.8	23.2	23.6	24.0	24.4
Teacher – Female	24.6	25.0	25.3	25.7	26.0

2. Post-retirement mortality (disabled lives): Separate set of rates are used for state employees and teachers

   a. State Employees: Sex distinct PUB-10 Tables for General Disabled Retirees by Occupation, projected with Scale Ultimate MP16.

   b. Teachers: Sex distinct PUB-10 Tables for Teacher Disabled Retirees by Occupation females, projected with Scale Ultimate MP16.

3. Pre-retirement mortality: Separate set of rates are used for state employees and teachers

   a. State Employees: Sex distinct PUB-10 Tables for General Employees by Occupation, projected with Scale Ultimate MP16.

   b. Teachers: Sex distinct PUB-10 Tables for Teachers Employees by Occupation for females, projected with Scale Ultimate MP16.

4. Disability rates: Sample rates are shown below. Ordinary disability rates are not applied to members eligible for retirement. One half the accidental disabilities are assumed to be totally and permanently disabled from any occupation.

Age	Number of Disabilities per 1,000							
	State Ordinary Males	State Accidental Males	State Ordinary Females	State Accidental Females	Teachers Ordinary Males	Teachers Accidental Males	Teachers Ordinary Females	Teachers Accidental Females
25	0.45	0.09	0.36	0.07	0.27	0.02	0.23	0.02
30	0.55	0.11	0.44	0.09	0.33	0.02	0.28	0.02
35	0.75	0.15	0.6	0.12	0.45	0.03	0.38	0.03
40	1.1	0.22	0.88	0.18	0.66	0.04	0.55	0.04
45	1.8	0.36	1.44	0.29	1.08	0.07	0.90	0.07
50	3.05	0.61	2.44	0.49	1.83	0.12	1.53	0.12
55	5.05	1.01	4.04	0.81	3.03	0.20	2.53	0.20
60	7.05	1.41	5.64	1.13	4.23	0.28	3.53	0.28
65	11.55	2.31	9.24	1.85	6.93	0.46	5.78	0.46

In addition, for members that are above age 60 and not eligible to retire, 2% is added to the rates above. For members that are age 55 with 20 Years of service and not eligible to retire, another 1% is added to the rates above.

5. Termination rates (for causes other than death, disability, or retirement) are a function of the member's gender and service. Termination rates are not applied to members eligible for retirement. Rates are shown below:

Service	State Employees	Correctional Officers	Teachers
1	0.168000	0.100000	0.157500
2	0.106218	0.070000	0.105000
3	0.084806	0.057393	0.078750
4	0.072281	0.049595	0.068052
5	0.063394	0.045034	0.050571
6	0.056501	0.041797	0.040169
7	0.050868	0.039287	0.033280
8	0.046107	0.037236	0.028385
9	0.041982	0.035502	0.024731
10	0.038344	0.033999	0.021900
11	0.035089	0.032674	0.019643
12	0.032145	0.031489	0.017804
13	0.029457	0.030417	0.016275
14	0.026984	0.029438	0.014985
15	0.024695	0.028537	0.013881
16	0.022563	0.027704	0.012928
17	0.020570	0.026927	0.012094
18	0.018697	0.026201	0.011361
19	0.016931	0.025519	0.010710
20	0.015262	0.024876	0.010128
21	0.013677	0.024268	0.009606
22	0.012170	0.023691	0.009135
23	0.010733	0.023142	0.008707
24	0.009360	0.022619	0.008316

25	0.008045	0.022119	0.007959

6. Retirement rates (unreduced):

   For State Employees (except Correctional Officers): a flat 20% per year retirement probability for members eligible for unreduced retirement. A 25% retirement probability at first eligibility will be only applied if they have reached age 65 or with at least 25 years of service.

   For Teachers: a flat 20% per year retirement probability for members under the age of 65 eligible for unreduced retirement, a flat 35% per year retirement probability for members at age 65 or older eligible for unreduced retirement. A 30% retirement probability at first eligibility will be applied for employees under age 65.

   For Correctional Officers: A set of unisex rates, indexed by service, as shown below. 100% of officers who have attained Social Security normal retirement age and have at least 5 years of service are assumed to retire.

Corrections	
Service	Ret. Rate
25	10.00%
26	5.00%
27	5.00%
28	5.00%
29	5.00%
30	6.00%
31	7.00%
32	8.00%
33	9.00%
34	10.00%
35	25.00%
36	20.00%
37	20.00%
38	20.00%
39	20.00%
40	100.00%

7. Reduced retirement: Rates based on the years from Normal Retirement Age, as shown below:

Years from Normal Retirement Age	Ret. Rate
5	1%
4	1%
3	1%
2	2%
1	3%

C. Other Assumptions:

1. Valuation payroll (used for determining the amortization contribution rate): Prior aggregate fiscal year payroll projected forward one year using the overall payroll growth rate.

2. Percent married: 85% of employees are assumed to be married.

3. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.

4. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity. The spousal annuity death benefit for vested married participants is valued using a static optional form conversion factor of0.84 and 0.78 for males and females respectively.

5. For active death benefits, the liability is initially calculated based on the ordinary death benefit provisions, and then a 7.5% load is applied to account for duty related benefits.

6. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.

7. Recovery from disability: None assumed.

8. Remarriage: It is assumed that no surviving spouse will remarry and there will be no children's benefit.

9. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available.

10. Investment and administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.

11. Inactive members: For members who terminated service prior to June 30, 2017 liabilities for inactive members are approximated as a multiple of their member contribution account balances. For non-vested inactive members, the multiple is 1.0. For vested inactive members, the multiple is 8.0 for members with 25 or more years of service, 3.0 for vested inactive members age 45 or older with less than 25 years of service, and 1.0 for other vested inactive members younger than age 45. For members who terminated service after June 30, 2017, the expected liability at termination has been carried forward with interest from the last valuation the member was active.

12. Decrement timing: For all non-teachers employees, decrements are assumed to occur at the middle of the year. For Teachers the retirement and termination decrements are assumed to occur at the beginning of the year, while death and disability are assumed to occur at the middle of the year.

13. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

14. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

15. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.

16. Benefit Service: All members are assumed to accrue one year of eligibility service each year.

17. All calculations were performed without regard to the compensation limit in IRC Section 401(a)(17) and the benefit limit under IRC Section 415.

D. Participant Data

Participant data was supplied on electronic files. There are separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for active members included name, an identification number, gender, a code indicating whether the member was active or inactive, a code indicating employee type (State Employee or Teacher), date of birth, service, salary, date of last contribution, accumulated member contributions without interest, accrued benefit multiplier as of June 30, 2014, Final Average Compensation as of June 30, 2012, Article 7 Retirement Date, and the Rhode Island Retirement Security Act Retirement Date. For retired members and beneficiaries, the data included name, an identification number, gender, date of birth, date of retirement, amount of benefit, the amount of adjustment after age 62 for anyone electing the Social Security option, a code indicating the option elected and the type of retiree (service retiree, disabled retiree, beneficiary), and if applicable, the joint pensioner’s date of birth and gender.

Salary supplied for the current year was based on the earnings for the fiscal year preceding the valuation date. However, for members with less than one year of service, the current rate of salary was used. This salary was adjusted by the salary increase rate for one year. An additional adjustment was made so that a member’s compensation would not be less than it was in the previous year.

In defining who was an active member, members with a date of last contribution in the final quarter of the fiscal year were considered active. Otherwise, the member was defined as inactive.

To correct for incomplete and inconsistent data, we first attempted to pulled data from prior valuation files and then made general assumptions to fill in the rest. These modifications had no material impact on the results presented.

A. Basic Actuarial Assumptions

Except for special assumptions that are specific to the Teachers' Survivors Benefit Plan, described below, the actuarial assumptions used in this valuation are the same as the ones used for Teachers in the June 30, 2020 actuarial valuation of the Employees' Retirement System of Rhode Island (ERSRI). I.e., this valuation uses the same 7.00% investment return rate, the same salary increase rates, the same mortality, disability, and retirement rates used in that valuation.

B. Special TSB Assumptions

1. Family Makeup: The following schedule shows the assumptions about the makeup of the member's family at the time of death:

Family Makeup	Probability (By Attained Age)								
	20	25	30	35	40	45	50	60	65
Spouse Only	5%	14%	14%	10%	11%	15%	32%	75%	70%
Spouse and 1 Child	5%	12%	20%	17%	22%	23%	18%	0%	0%
Spouse and 2 or More Children	4%	13%	36%	46%	41%	35%	24%	0%	0%
One Child Alone	5%	6%	3%	7%	8%	10%	6%	0%	0%
Two Children Alone	3%	7%	4%	7%	6%	3%	1%	0%	0%
Three or More Children Alone	1%	4%	4%	5%	4%	1%	1%	0%	0%
Dependent Parent Alone	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Dependents	77%	44%	19%	8%	8%	13%	18%	25%	30%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

2. Ages: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses. Parents are assumed to be 30 years older than the member, and children are assumed to be 30 years younger than the member. All children are assumed to remain in school until age 23.

3. Remarriage: It was assumed that no spouses would remarry after the member's death.

4. Refunds at Retirement: Please refer to the Family Makeup grid above for the assumed percentage of members will elect a refund at retirement. (it is the proportion of the membership assumed to be without an eligible dependent.)

5. Deferred beneficiaries: No specific data was available for deferred beneficiaries— those spouses of deceased members who are not yet age 60 and who are not receiving family benefits. They will be entitled to receive a spouse's benefit upon reaching age 60. To estimate this liability, we assumed that these members would receive an immediate refund of their TSB contributions.

6. Inactive members with contributions on deposit: It was assumed that 100% of members who are inactive, nonretired, and nonvested would receive an immediate refund of their TSB contributions.

7. Cost-of-living adjustment (COLA): COLAs are assumed to be 2.50% per year, since that is the ERSRI inflation assumption.

C. Actuarial Methods

1. Valuation date: The TSB plan is valued as of June 30, the last day of the plan's fiscal year. Valuations in the future will be done biennially, in every odd year.

2. Actuarial cost method: The Entry Age Normal actuarial cost method is used to determine the normal cost and actuarial accrued liability. The normal cost is the level dollar amount (not the level percentage of pay used for ERSRI) required to fund a members benefit from entry age to ultimate retirement. The level-dollar version of the Entry Age Normal method was used for consistency with the current contribution requirement of $115.00/year for almost all members.

3. Actuarial asset method: The market value of fund assets is used as the actuarial value, rather than using a smoothed value.

D. Participant Data

Participant data was supplied on electronic files. There were separate files for (i) covered active and inactive, nonretired members, (ii) retirees who had left their contributions on deposit, and (iii) survivors receiving benefits. For active and inactive/nonretired members, we used the same participant data that we used for the valuation of ERSRI, but excluded members not covered under the TSB. For covered retirees, we received a file showing each member's date of birth, sex, TSB contribution account balance (without interest), and final average salary. For beneficiaries receiving benefits, we received a file that included for each deceased member the spouse's (or child's) date of birth, sex, the amount of the monthly benefit, and a code indicating the kind of benefit being paid (e.g., spouse's benefit, family benefit with two or more children, child's benefit, etc.).

Municipal Employees' Retirement System (MERS)
Summary of Actuarial Methods and Assumptions

I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation uses the Entry Age actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial accrued liability (UAAL).

The employer normal cost rate is the total normal cost rate, less the member contribution rate. The total normal cost rate is the level percentage-of-pay contribution which would theoretically pay for all benefits if it had been made each year from the inception of the plan and if there had never been any changes of benefits, any changes of assumptions or methods, or any experience gains or losses. The normal costs are determined on an individual basis.

The actuarial accrued liability is the difference between the actuarial present value of all future benefits and the actuarial present value of future normal costs. It is the amount to which the normal costs would have accumulated under the assumptions described in the preceding paragraph. The unfunded actuarial accrued liability (UAAL) is the difference between the actuarial accrued liability and the actuarial value of assets.

The amortization contribution rate is the level percentage of payroll required to reduce the UAAL to zero over the remaining amortization period. The employer contribution rate determined by this valuation will not be effective until two years after the valuation date. The determination of the contribution rate reflects this deferral. The amortization payment for the applicable fiscal year is first determined based on the individual amortization bases. The covered payroll is projected forward for two years, and we then determine the amortization rate by dividing the amortization payment by the projected payroll. Contributions are assumed to be made monthly throughout the year.

For underfunded units, the amortization period for the UAAL as of June 30, 2010 was set to 25 years, or 16 years as of the current valuation date. In conjunction with the Article 21 legislation, employers were given the option to reset the amortization period for the UAAL existing as of June 30, 2014 to 25 years from June 30, 2014. All new gains and losses each year will be amortized over individual 20 year periods. At any time that a unit is in an overfunded status, the amortization schedule will be a rolling 20 year amortization of any surplus.

III. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continue to be recognized on their original timeframe. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses. The actuarial value is calculated in the aggregate for all units combined, and then it is allocated to each unit in proportion to that unit's market value.

IV. Actuarial Assumptions

V. Economic Assumptions

1. Investment return: 7.00% per year, compounded annually, composed of an assumed 2.50% inflation rate and a 4.50% net real rate of return. This rate represents the assumed return, net of all investment and administrative expenses.

2. Salary increase rate: For general employees, the sum of (i) a 3.00% wage inflation assumption (composed of a 2.50% price inflation assumption and a 0.50% additional general increase), (ii) individual merit of 0.25%, and (iii) a service-related component as shown below:

General Employees		
Years of Service	Service-Related Component	Total Increase
1	4.00%	7.25%
2	3.00	6.25
3	2.75	6.00
4	2.50	5.75
5	2.25	5.50
6	2.00	5.25
7	1.25	4.50
8	0.75	4.00
9-10	0.50	3.75
11-15	0.25	3.50
16 or more	0.00	3.25

For police/fire employees, the sum of (i) a 3.00% wage inflation assumption (composed of a 2.50% price inflation assumption and a 0.50% additional general increase), (ii) an individual merit component of 1.00%, and (iii) a service-related component as shown below:

Police/Fire Employees		
Years of Service	Service-Related Component	Total Increase
1	10.00%	14.00%
2	9.00	13.00
3	7.00	11.00
4	4.00	8.00
5	4.50	6.50
6	3.00	7.00
7	0.50	4.50
8	0.50	4.50
9 or more	0.00	4.00

Salary increases are assumed to occur once a year, on July 1. Therefore the pay used for the period year following the valuation date is equal to the reported pay for the prior year, increased by the salary increase assumption. For employees with less than one year of service, the reported rate of pay is used rather than the fiscal year salary paid.

3. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.00% per year. This increase rate is solely due to the effect of wage inflation on salaries, with no allowance for future membership growth.

4. Post-retirement Benefit Increase: Post-retirement benefit increases are assumed to be 2.10%, per annum, while the plan has a funding level that exceeds 80%; however, an interim COLA will be granted in four-year intervals while the COLA is suspended. The actual amount of the COLA is determined based on 50% of the plan's five-year average investment rate of return minus 5.00% which will range from zero to 4.0%, and 50% of the lesser of 3% or last year's CPI-U increase for a total maximum increase of 3.50%. It is known that the COLA for calendar years 2021 and 2022 will be 1.06% and 3.50% respectively, and this has been reflected in the valuation.

B. Demographic Assumptions

1. Post-retirement mortality rates:

   a. Male employees: PUB(10) Median Table for Healthy General Employee Males, loaded by 115%, projected with Scale Ultimate MP16.

b. Female employees: PUB(10) Median Table for Healthy General Employee Females, loaded by 111%, projected with Scale Ultimate MP16.

c. Disabled males – PUB(10) Tables for Disabled Reitrees by Occupation for males, projected with Scale Ultimate MP16.

d. Disabled females – PUB(10) Tables for Disabled Reitrees by Occupation for females, projected with Scale Ultimate MP16

2. Pre-retirement mortality (combined ordinary and duty):

   a. Male employees: PUB(10) Tables for Employees by Occupation for males, projected with Scale Ultimate MP16.

   b. Female employees: PUB(10) Tables for Employees by Occupation for females, projected with Scale Ultimate MP16.

3. Disability rates: Sample rates per 1,000 active members are shown below. Ordinary disability rates are not applied to members eligible for unreduced retirement.

Age	Number of Disabilities per 1,000					
	General Employees, Ordinary, Males	General Employees, Accidental, Males	General Employees, Ordinary, Females	General Employees, Accidental, Females	Police & Fire, Ordinary, Males and Females	Police & Fire, Accidental, Males and Females
25	0.45	0.14	0.18	0.04	0.26	1.36
30	0.55	0.17	0.22	0.04	0.33	1.76
35	0.75	0.23	0.30	0.06	0.44	2.32
40	1.1	0.33	0.44	0.09	0.66	3.52
45	1.8	0.54	0.72	0.14	1.08	5.76
50	3.05	0.92	1.22	0.24	1.82	9.68
55	5.05	1.52	2.02	0.40	1.82	9.68
60	7.05	2.12	2.82	0.56	1.82	9.68
65	11.55	3.47	4.62	0.92	1.82	9.68

For General Employees that are age 55 with 20 Years of service but not eligible to retire, an additional 1% is added to the rates above. In addition, if the member is above age 60, another 1% is added to the rates above

4. Termination rates (for causes other than death, disability, or retirement) are a function of the member's service. Termination rates are not applied to members eligible for retirement. Rates are shown below:

Service	General Employees, Males & Females	Police & Fire, Males & Females
1	0.175000	0.100000
2	0.118774	0.055650
3	0.101396	0.043890
4	0.086148	0.037012
5	0.072887	0.032131
6	0.061471	0.028346
7	0.051757	0.025253
8	0.043604	0.022637
9	0.036868	0.020372
10	0.031408	0.018374
11	0.027082	0.016586
12	0.023746	0.014969
13	0.021259	0.013493
14	0.019479	0.012135
15	0.018263	0.010878
16	0.017470	0.009708
17	0.016956	0.008613
18	0.016579	0.007584
19	0.016198	0.006615
20	0.015669	0.000000
21	0.014851	0.000000
22	0.013602	0.000000
23	0.011778	0.000000
24	0.009239	0.000000
25	0.005841	0.000000

5. Retirement rates (unreduced):

For MERS General Employees: a flat 20% per year retirement probability for members eligible for unreduced retirement. A 25% retirement probability at first eligibility will be only applied if they have reached age 65 or with at least 25 years of service.

For MERS P&F: Unisex, service based rates are used for police and fire.

Service	Units without the Optional 20-year retirement election
25	13.0%
26	16.0%
27	19.0%
28	20.0%
29	20.0%
30-34	25.0%
35-39	35.0%
40+	100.0%

100% of members eligible to retire as of June 30, 2012 are assumed to retire once they reach 35 years of service. All members not eligible to retire as of June 30, 2012 are assumed retire at SSNRA, if eligible.

Members are eligible to receive an enhanced benefit if they are at least age 57 with 30 or more years of service. In the year prior to becoming eligible for this provision, no members are assumed to retire.

6. Reduced retirement rates: No early retirements are assumed for police and fire. Rates for general employees are based on the years from Retirement Eligibility for unreduced benefits, as shown below:

Years from Normal Retirement Age	Ret. Rate
5	1%
4	1%
3	1%
2	2%
1	3%

C. Other Assumptions:

1. Valuation payroll (used for determining the amortization contribution rate): Prior aggregate fiscal year payroll projected forward one year using the overall payroll growth rate.

2. Percent married: 80% of employees are assumed to be married.

3. For the special post-retirement police and fire survivor benefit, we have assumed 80% of members will have a spouse at the time of retirement and 10% of those members would choose option 1 or option 2.

4. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.

5. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity. The spousal annuity death benefit for vested married participants is valued using optional form conversion factors based on a unisex mortality table.

6. For active death benefits, the liability is initially calculated based on the ordinary death benefit provisions, and then a 7.5% load is applied to account for duty related benefits.

7. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.

8. Recovery from disability: None assumed.

9. Remarriage: It is assumed that no surviving spouse will remarry and there will be no children's benefit.

C. Other Assumptions:

10. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available.

11. Investment and administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.

12. Inactive members: For members who terminated service prior to June 30, 2017 liabilities for inactive members are approximated as a multiple of their member contribution account balances. For nonvested inactive members, the multiple is 1.0. For vested inactive members, the multiple is 8.0 for members with 25 or more years of service, 3.0 for vested inactive members age 45 or older with less than 25 years of service, and 1.0 for other vested inactive members younger than age 45. For members who terminated service after June 30, 2017, the expected liability at termination has been carried forward with interest from the last valuation the member was active.

13. Decrement timing: For all members, decrements are assumed to occur at the middle of the year.

14. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

15. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

16. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.

17. Benefit Service: All members are assumed to accrue one year of eligibility service each year.

18. All calculations were performed without regard to the compensation limit in IRC Section 401(a)(17) and the benefit limit under IRC Section 415.

D. Participant Data

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

The data for active members included name, identification number, sex, a code indicating whether the member was active or inactive, date of birth, service, salary, unit indicator, date of last contribution, accumulated member contributions without interest, accrued benefit multiplier as of Valuation Date, Final Average Compensation as of June 30, 2012, and the Rhode Island Retirement Security Act Retirement Date. For retired members and beneficiaries, the data included date of birth, sex, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and a form of payment code.

Salary supplied for the current year was based on the earnings for the year preceding the valuation date. This salary was adjusted by the salary increase rate for one year. However, for members with less than one year of service, the current rate of salary was used. This salary was adjusted by the salary increase rate for one year. An additional adjustment was made so that a member's compensation would not be less than it was in the previous year.

In defining who was an active member, members with a date of last contribution in the final quarter of the fiscal year were considered active. Otherwise, the member was defined as inactive.

Beneficiary data for police and fire employees was completed, based on the Age Difference stated above, if the information was not originally supplied on the electronic files.

To correct for incomplete and inconsistent data, we first attempted to pull data from prior valuation files and then made general assumptions to complete the rest. These had no material impact on the results presented.

For members who transferred during the prior fiscal year adjustments were made for certain data records as needed. The active record for a member who transferred into a MERS unit was compared to the prior active record to test for reasonability of service and account balances
relative to the prior year's active record and adjusted if needed. The inactive record for any member who transferred out of a MERS unit was deleted when calculating the inactive liability.

State Police Retirement Benefits Trust (SPRBT)
Summary of Actuarial Methods and Assumptions

I. <u>Valuation Date</u>

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. <u>Actuarial Cost Method</u>

The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial accrued liability (UAAL).

1. First, the actuarial present value of future benefits is determined by discounting the projected benefits for each member back to the valuation date using the assumed investment return rate as the discount rate. For active members, the projected benefits are based on the member's age, service, sex and compensation, and based on the actuarial assumptions. The calculations take into account the probability of the member's death, disability, or termination of employment prior to becoming eligible for a retirement benefit, as well as the possibility of the member will remain in service and receive a service retirement benefit. Future salary increases are anticipated. The present value of the expected benefits payable to all active members is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits. Liabilities for future members are not included.

2. The employer contributions required to support the benefits are determined as a level percentage of salary, and consist of a normal contribution and an amortization contribution.

3. The normal contribution is determined using the Entry Age Normal method. Under this method, a calculation is made to determine the rate of contribution which, if applied to the compensation of each individual member during the entire period of anticipated covered service, would be required to meet the cost of all benefits payable on his behalf. The salary-weighted average of these rates is the normal cost rate. This calculation reflects the plan provisions that apply to each individual member.

4. The employer normal cost rate is equal to (i) the normal cost rate, minus (ii) the member contribution rate.

5. The actuarial accrued liability is equal to the present value of all benefits less the present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is then determined as (i) the actuarial accrued liability, minus (ii) the actuarial value of assets.

6. The amortization contribution rate is the level percentage of payroll required to reduce the UAAL to zero over the remaining amortization period. The employer contribution rate determined by this valuation will not be effective until two years after the valuation date. The determination of the contribution rate reflects this deferral. The amortization payment for the applicable fiscal year is first determined based on the individual amortization bases. The covered payroll is projected forward for two years, and we then

determine the amortization rate by dividing the amortization payment by the projected payroll. Contributions are assumed to be made monthly throughout the year.

(a) In conjunction with The Rhode Island Retirement Security Act of 2011, the amortization period was reset to 25 years as of June 30, 2010 for the UAAL that existed at that time. New gains and losses each year will be amortized over individual 20 year periods. At any time that the System is in an overfunded status, the amortization schedule will be a rolling 20 year amortization of any surplus.

III. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continue to be recognized on their original timeframe. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 7.00% per year, compounded annually, composed of an assumed 2.50% inflation rate and a 4.50% net real rate of return. This rate represents the assumed return, net of all investment and administrative expenses.

2. Salary increase rate: The sum of (i) a 3.00% wage inflation assumption (composed of a 2.50% price inflation assumption and a 0.50% additional general increase), and (ii) a service-related component as shown below:

Years of Service	Service-Related Component	Total Increase
0	5.00%	8.00%
1	4.75	7.75
2	4.75	7.75
3	8.75	11.75
4	5.75	8.75
5	4.00	7.00
6	2.00	5.00
7	2.00	5.00
8	1.75	4.75
9	1.50	4.75
10-14	1.50	4.50
15-19	1.25	4.25

20-24	1.00	4.00
25&up	0.75	3.75

Salary increases are assumed to occur once a year, on July 1. Therefore the pay used for the period between the valuation date and the first anniversary of the valuation date is equal to the reported pay for the prior year, increased by the salary increase assumption.

3. Payroll growth rate: In the amortization of the unfunded frozen liability, payroll is assumed to increase 3.00% per year. This assumption includes no allowance for future membership growth.

4. Post-retirement Benefit Increase: Post-retirement benefit increases are assumed to be 2.10%, per annum, while the plan has a funding level that exceeds 80%; however, an interim COLA will be granted in four-year intervals while the COLA is suspended. The second such COLA will be applicable in Calendar Year 2021. As of June 30, 2021, it is assumed that the COLAs will be suspended through 2027 due to the current funding level of the plans. The actual amount of the COLA is determined based on 50% of the plan's five-year average investment rate of return minus 5.00% which will range from zero to 4.0%, and 50% of the lesser of 3% or last year's CPI-U increase for a total maximum increase of 3.50%.

B. Demographic Assumptions

1. Post-termination mortality rates

   a. Healthy males – PUB(10) Median Table for Healthy General Employee Males, loaded by 115%, projected with Scale Ultimate MP16.

   b. Healthy females - PUB(10) Median Table for Healthy General Employee Females, loaded by 111%, projected with Scale Ultimate MP16.

   c. Disabled males – PUB(10) Tables for Disabled Retirees by Occupation for males, projected with Scale Ultimate MP16.

   d. Disabled females – PUB(10) Tables for Disabled Retirees by Occupation for females, projected with Scale Ultimate MP16.

2. Pre-retirement mortality:

   a. Males – PUB(10) Tables for Employees by Occupation for males, projected with Scale Ultimate MP16.

   b. Females - PUB(10) Tables for Employees by Occupation for females, projected with Scale Ultimate MP16

3. Disability rates – Rates are applied, with 75% of disabilities considered work related, and no recoveries assumed once disabled:

Age	Rate
20	0.12%
25	0.17
30	0.22
35	0.29
40	0.44
45	0.72
50	1.21

   Disabilities that are not work-related are assumed to result in a refund. The disability rates for non work-related causes stop once the member is eligible for retirement.

4. Termination rates – None

5. Retirement rates – State police are assumed to retire in accordance with the probabilities as shown below. Any member of the State police, other than the superintendent of State police may retire at any time subsequent to the date the member's retirement allowance equals or exceeds 50% of average compensation, provided that a member may retire at or after the date of the attainment of a 50% benefit multiplier. 100% are assumed to retire upon the first to occur of (i) the date the member's retirement allowance equals 65%; or (ii)the age 70 if still active.

State Police Employed Before July 1, 2007	
Service	Ret. Rate
20	5.0%
21	8.0%
22	11.0%
23	14.0%
24	17.0%
25+	45.0%

State Police Employed On or After July 1, 2007	
Service	Ret. Rate
25	35.0%
26	25.0%
27	20.0%
28	30.0%
29+	40.0%

C. Other Assumptions

1. Percent married: 85% of employees are assumed to be married.

2. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.

3. Remarriage: It is assumed that no surviving spouse will remarry and there will be no children's benefit.

4. Investment and administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.

5. Overtime: Members eligible for overtime are assumed to work and contribute on 400 hours of overtime during their final averaging period.

V. Participant Data

Participant data was supplied in electronic files for active and retired members. The data for active members included birth date, sex, service, salary and employee contribution account balance. For retired members and beneficiaries, the data included date of birth, sex, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and a form of payment code.

Judicial Retirement Benefits Trust (JRBT)
Summary of Actuarial Methods and Assumptions

I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial accrued liability (UAAL).

1. First, the actuarial present value of future benefits is determined by discounting the projected benefits for each member back to the valuation date using the assumed investment return rate as the discount rate. For active members, the projected benefits are based on the member's age, service, sex and compensation, and based on the actuarial assumptions. The calculations take into account the probability of the member's death, disability, or termination of employment prior to becoming eligible for a retirement benefit, as well as the possibility of the member will remain in service and receive a service retirement benefit. Future salary increases are anticipated. The present value of the expected benefits payable to all active members is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits. Liabilities for future members are not included.

2. The employer contributions required to support the benefits are determined as a level percentage of salary, and consist of a normal contribution and an amortization contribution.

3. The normal contribution is determined using the Entry Age Normal method. Under this method, a calculation is made to determine the rate of contribution which, if applied to the compensation of each individual member during the entire period of anticipated covered service, would be required to meet the cost of all benefits payable on his behalf. The salary-weighted average of these rates is the normal cost rate. This calculation reflects the plan provisions that apply to each individual member.

4. The employer normal cost rate is equal to (i) the normal cost rate, minus (ii) the member contribution rate.

5. The actuarial accrued liability is equal to the present value of all benefits less the present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is then determined as (i) the actuarial accrued liability, minus (ii) the actuarial value of assets.

6. The amortization contribution rate is the level percentage of payroll required to reduce the UAAL to zero over the remaining amortization period. The employer contribution rate determined by this valuation will not be effective until two years after the valuation date. The determination of the contribution rate reflects this deferral. The amortization payment for the applicable fiscal year is first determined based on the individual amortization bases. The covered payroll is projected forward for two years, and we then determine the amortization rate by dividing the amortization payment by the projected payroll. Contributions are assumed to be made monthly throughout the year.

   (a) The UAAL was initially being amortized over the remainder of a closed 30-year period from June 30, 1999. In conjunction with The Rhode Island Retirement Security Act of 2011, the amortization period was reset to 25 years as of June 30, 2010 for the UAAL that existed at that time. New gains and losses each year will be amortized over individual 20 year periods. At any time that the System is in an overfunded status, the amortization schedule will be a rolling 20 year amortization of any surplus.

III. <u>Actuarial Value of Assets</u>

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continue to be recognized on their original timeframe. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 7.00% per year, compounded annually, composed of an assumed 2.50% inflation rate and a 4.50% net real rate of return. This rate represents the assumed return, net of all investment and administrative expenses.

2. Salary increase rate: Salaries are assumed to increase at the rate of 2.75% per year.

   Salary increases are assumed to occur once a year, on July 1. Therefore the pay used for the period between the valuation date and the first anniversary of the valuation date is equal to the reported pay for the prior year, increased by the salary increase assumption.

3. Payroll growth rate: In the amortization of the unfunded frozen liability, payroll is assumed to increase 2.75% per year. This assumption includes no allowance for future membership growth.

4. Post-retirement Benefit Increase: Post-retirement benefit increases are assumed to be 2.10%, per annum, while the plan has a funding level that exceeds 80%; however, an interim COLA will be granted in four-year intervals while the COLA is suspended. The first such COLA will be applicable in Calendar Year 2017. As of June 30, 2021, it is assumed that the COLAs will be suspended through 2027 due to the current funding level of the plans. The actual amount of the COLA is determined based on 50% of the plan's five-year average investment rate of return minus 5.00% which will range from zero to 4.0%, and 50% of the lesser of 3% or last year's CPI-U increase for a total maximum increase of 3.50%.

B. Demographic Assumptions

1. Post-termination mortality rates (non-disabled lives)

    a. Male: PUB(10) Above Median Table for Healthy General Employee Males, projected with Scale Ultimate MP16.

    b. Females: PUB(10) Above Median Table for Healthy General Employee Females, projected with Scale Ultimate MP16.

2. Post-termination mortality rates (disabled lives)

    a. Males: PUB(10) Tables for Disabled Retirees by Occupation for males, projected with Scale Ultimate MP16.

    b. Females: PUB(10) Tables for Disabled Retirees by Occupation for females, projected with Scale Ultimate MP16.

3. Pre-termination mortality rates

    a. Males: PUB(10) Tables for Disabled Retirees by Occupation for males, projected with Scale Ultimate MP16.

    b. Females: PUB(10) Tables for Disabled Retirees by Occupation for females, projected with Scale Ultimate MP16.

4. Disability rates – None

5. Termination rates – None

6. Retirement rates – 33% of members are assumed to retire when first eligible for a reduced retirement benefit (age 65 with 10 years of service, or any age with 20 years of service). All other members are assumed to retire when eligible for an unreduced retirement benefit (age 65 with 20 years of service, or age 70 with 15 years of service). Judges who have not reached eligibility for a retirement benefit by age 75 are assumed to terminate at age 75 and receive either a reduced retirement benefit, if eligible, or a refund.

C. Other Assumptions

1. Percent married: 85% of employees are assumed to be married.

2. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years

younger than their spouses.

3. Remarriage: It is assumed that no surviving spouse will remarry and there will be no children's benefit.

4. All married members appointed after January 1, 2009 will elect the optional spouse's coverage at retirement.

5. Investment and administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.

V. Participant Data

Participant data was supplied in electronic files for active members and retirees. The data for active members included birth date, sex, service, salary and employee contribution account balance. For retired members and beneficiaries, the data included date of birth, sex, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and a form of payment code.

Rhode Island Judicial Retirement Fund Trust (RIJRFT)
Summary of Actuarial Methods and Assumptions

The assumptions used in this valuation, with the exception of the 2.45% discount rate, are the same as those summarized in Appendix A in the June 30, 2021 actuarial valuation of the JRBT dated December 10, 2021. We believe the assumptions are internally consistent and are reasonable.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities and the calculated contribution rates.

State Police Retirement Fund Trust (SPRFT)
Summary of Actuarial Methods and Assumptions

The assumptions used in this valuation, including the 7.00% discount rate, are the same as those summarized in Appendix A in the June 30, 2021 actuarial valuation of the SPRBT dated December 10, 2021. We believe the assumptions are internally consistent and are reasonable.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities and the calculated contribution rates.

Employees' Retirement System of Rhode Island
Solvency Test

Year End June 30,	Aggregate Accrued Liabilities for: Active Member Contributions (1)	Retirees and Beneficiaries (2)	Active Members (Employer Financed Portion) (3)	Net Assets Available for Benefits	Portion of Accrued Liabilities Covered by Net Assets Available for Benefits (1)	(2)	(3)
ERS - State Employees							
2021	$ 506,068,183	$ 3,297,001,176	$ 1,045,117,143	$ 2,747,732,215	100%	68%	0%
2020	$ 532,882,025	$ 3,293,862,677	$ 966,922,317	$ 2,597,672,247	100%	63%	0%
2019	$ 528,120,259	$ 3,331,271,133	$ 941,701,653	$ 2,557,560,104	100%	61%	0%
2018	$ 522,247,476	$ 3,337,610,239	$ 896,083,219	$ 2,516,618,305	100%	60%	0%
2017	$ 547,320,112	$ 3,209,626,083	$ 941,332,613	$ 2,485,576,642	100%	60%	0%
2016	$ 546,139,313	$ 2,972,758,380	$ 885,400,955	$ 2,468,446,998	100%	65%	0%
ERS - Teachers							
2021	$ 896,019,101	$ 4,678,359,693	$ 1,477,054,177	$ 4,142,172,560	100%	69%	0%
2020	$ 905,593,163	$ 4,808,442,580	$ 1,243,550,575	$ 3,911,140,020	100%	63%	0%
2019	$ 909,520,697	$ 4,883,816,473	$ 1,200,949,267	$ 3,866,452,572	100%	61%	0%
2018	$ 877,444,344	$ 4,998,662,267	$ 1,075,399,324	$ 3,815,698,266	100%	59%	0%
2017	$ 877,443,418	$ 4,999,290,131	$ 1,017,509,679	$ 3,778,302,063	100%	58%	0%
2016	$ 869,811,233	$ 4,734,334,535	$ 862,332,702	$ 3,772,348,051	100%	61%	0%
Teachers' Survivors Benefits Plan							
2021	$ 10,206,213	$ 173,612,449	$ 37,527,477	$ 423,973,743	100%	100%	640%
2020	$ 10,036,857	$ 181,404,235	$ 31,529,329	$ 342,259,317	100%	100%	478%
2019	$ 9,862,849	$ 181,086,356	$ 35,729,472	$ 339,417,231	100%	100%	416%
2018	$ 9,406,475	$ 175,999,379	$ 34,504,117	$ 327,793,239	100%	100%	413%
2017	$ 9,068,290	$ 187,447,735	$ 34,322,154	$ 311,960,433	100%	100%	336%
2016	$ 8,836,898	$ 157,052,544	$ 21,023,733	$ 286,485,057	100%	100%	574%
Municipal Employees' Retirement System - General Employees							
2021	$ 108,242,469	$ 812,050,573	$ 398,292,028	$ 1,132,507,731	100%	100%	53%
2020	$ 114,560,796	$ 831,472,252	$ 348,326,694	$ 1,067,267,211	100%	100%	35%
2019	$ 116,450,119	$ 823,938,329	$ 343,831,951	$ 1,043,754,252	100%	100%	30%
2018	$ 120,470,385	$ 797,722,285	$ 342,991,323	$ 1,014,741,014	100%	100%	28%
2017	$ 124,901,116	$ 768,391,585	$ 339,993,188	$ 986,459,230	100%	100%	27%
2016	$ 127,744,740	$ 697,200,387	$ 317,373,150	$ 964,595,506	100%	100%	44%
Municipal Employees' Retirement System - Police/Fire Employees							
2021	$ 117,173,786	$ 458,225,017	$ 303,931,495	$ 719,522,469	100%	100%	47%
2020	$ 104,666,982	$ 443,862,934	$ 283,592,417	$ 645,021,133	100%	100%	34%
2019	$ 99,277,350	$ 381,050,359	$ 268,429,439	$ 592,318,349	100%	100%	42%
2018	$ 93,666,060	$ 361,082,233	$ 258,579,954	$ 553,875,865	100%	100%	38%
2017	$ 87,989,399	$ 345,463,983	$ 247,593,371	$ 518,878,790	100%	100%	35%
2016	$ 81,825,506	$ 309,878,907	$ 216,362,006	$ 488,505,138	100%	100%	45%
State Police Retirement Benefits Trust							
2021	$ 20,751,492	$ 99,071,361	$ 79,020,119	$ 175,036,771	100%	100%	70%
2020	$ 20,004,705	$ 88,982,304	$ 78,523,882	$ 158,212,175	100%	100%	63%
2019	$ 18,699,574	$ 82,309,802	$ 73,501,934	$ 148,085,853	100%	100%	64%
2018	$ 16,645,723	$ 82,570,555	$ 67,291,205	$ 139,008,754	100%	100%	59%
2017	$ 14,999,688	$ 80,543,721	$ 60,517,447	$ 131,320,263	100%	100%	59%
2016	$ 14,978,441	$ 59,616,701	$ 60,910,010	$ 123,788,498	100%	100%	81%
Judicial Retirement Benefits Trust							
2021	$ 10,386,410	$ 43,051,226	$ 37,990,850	$ 90,266,123	100%	100%	97%
2020	$ 10,717,275	$ 35,020,141	$ 42,797,124	$ 82,419,083	100%	100%	86%
2019	$ 9,685,548	$ 34,447,598	$ 37,127,793	$ 78,027,132	100%	100%	91%
2018	$ 9,659,842	$ 29,508,120	$ 37,030,335	$ 73,673,771	100%	100%	93%
2017	$ 9,637,212	$ 25,688,803	$ 38,402,332	$ 68,784,251	100%	100%	87%
2016	$ 8,519,694	$ 24,405,717	$ 32,362,116	$ 64,401,616	100%	100%	97%
Rhode Island Judicial Retirement Fund Trust*							
2021	$ 399,138	$ 5,799,206	$ 16,100,469	$ 1,419,660	100%	18%	0%
2020	$ 399,016	$ 5,720,478	$ 15,687,409	$ 1,113,364	100%	12%	0%
2019	$ 399,016	$ 5,418,246	$ 13,064,067	$ 966,392	100%	10%	0%
2018	$ 399,012	$ 5,332,955	$ 13,261,647	$ 806,246	100%	8%	0%
2017	$ 349,593	$ 3,796,504	$ 16,295,598	$ 646,628	100%	8%	0%
2016	$ 334,265	$ 3,914,017	$ 16,322,895	$ 582,245	100%	6%	0%

* *1.92% Discount rate used for fiscal year ending June 30, 2021.*
2.45% Discount rate used for fiscal year ending June 30, 2020.
3.13% Discount rate used for fiscal year ending June 30, 2019.
3.62% Discount rate used for fiscal year ending June 30, 2018.
3.56% Discount rate used for fiscal year ending June 30, 2017.

Year End June 30,	Active Member Contributions (1)	Retirees and Beneficiaries (2)	Active Members (Employer Financed Portion) (3)	Net Assets Available for Benefits	(1)	(2)	(3)
State Police Retirement Fund Trust							
2021	$ -	$ 165,430,247	$ -	$ 23,499,497	0%	14%	0%
2020	$ -	$ 173,150,156	$ -	$ 17,255,399	0%	10%	0%
2019	$ -	$ 177,825,621	$ -	$ 16,598,339	0%	9%	0%
2018	$ -	$ 182,583,298	$ -	$ 16,258,330	0%	9%	0%
2017	$ -	$ 175,957,019	$ -	$ 16,013,015	0%	9%	0%

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

Source: The most recent actuarial valuation for ERSRI is as of June 30, 2017. Data in this schedule prior to fiscal year ending June 30, 2017 was derived from actuarial valuations prepared by GRS and certified by the ERSRI Board in prior fiscal years.

Employees' Retirement System of Rhode Island
Schedule of Funding Progress

Year End June 30,	Actuarial Accrued Liabilities	Actuarial Value of Assets	Assets as a % of Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (UAAL)	Covered Payroll	UAAL as a % of Covered Payroll
ERS - State Employees						
2021	4,848,186,502	2,747,732,215	56.7%	2,100,454,287	739,998,727	283.8%
2020	4,793,667,018	2,597,672,247	54.2%	2,195,994,771	755,310,749	290.7%
2019	4,801,093,045	2,557,560,104	53.3%	2,243,532,941	740,294,095	303.1%
2018	4,755,940,934	2,516,618,305	52.9%	2,239,322,629	711,736,212	314.6%
2017	4,698,278,808	2,485,576,642	52.9%	2,212,702,166	704,036,300	314.3%
2016	4,404,298,648	2,468,446,998	56.0%	1,935,851,650	693,242,177	279.2%
2015	4,371,789,900	2,476,485,327	56.6%	1,895,304,573	691,555,582	274.1%
2014	4,369,081,872	2,449,125,421	56.1%	1,919,956,451	675,204,750	284.4%
2013	4,266,053,163	2,411,057,214	56.5%	1,854,995,949	664,118,904	279.3%
2012	4,297,261,311	2,421,191,542	56.3%	1,876,069,769	669,477,539	280.2%
ERS - Teachers						
2021	7,051,432,971	4,142,172,560	58.7%	2,909,260,411	1,091,442,659	266.6%
2020	6,957,586,318	3,911,140,020	56.2%	3,046,446,298	1,080,912,926	281.8%
2019	6,994,286,436	3,866,452,572	55.3%	3,127,833,864	1,086,984,336	287.8%
2018	6,951,505,936	3,815,698,266	54.9%	3,135,807,670	1,057,179,746	296.6%
2017	6,894,243,228	3,778,302,063	54.8%	3,115,941,165	1,035,710,229	300.9%
2016	6,466,478,470	3,772,348,051	58.3%	2,694,130,419	1,009,979,725	266.8%
2015	6,438,732,100	3,783,601,053	58.8%	2,655,131,047	995,994,669	266.6%
2014	6,424,596,267	3,742,152,714	58.2%	2,682,443,553	982,565,406	273.0%
2013	6,265,311,945	3,697,787,537	59.0%	2,567,524,408	963,525,547	266.5%
2012	6,373,081,344	3,746,299,871	58.8%	2,626,781,473	971,904,991	270.3%
Teachers' Survivors Benefits Plan^						
2021	221,346,139	423,973,743	191.5%	(202,627,604)	592,624,822	-34.2%
2020	222,970,421	342,259,317	153.5%	(119,288,896)	588,439,146	-20.3%
2019	226,678,677	339,417,231	149.7%	(112,738,554)	575,889,277	-19.6%
2018	219,909,971	327,793,239	149.1%	(107,883,268)	562,365,576	-19.2%
2017	230,838,179	311,960,433	135.1%	(81,122,254)	544,320,446	-14.9%
2016	186,913,175	286,485,057	153.3%	(99,571,882)	522,968,886	-19.0%
2014	192,124,126	293,921,803	153.0%	(101,797,677)	542,756,917	-19.0%
2013	175,233,723	261,365,155	149.0%	(86,131,432)	544,090,898	-16.0%
2011	133,569,376	242,885,805	182.0%	(109,316,429)	537,264,193	-20.0%
2009	129,110,000	186,737,083	145.0%	(57,627,083)	509,416,780	-11.0%
2007	116,599,601	259,851,904	223.0%	(143,252,303)	466,208,437	-31.0%
Municipal Employees' Retirement System - General Employees**						
2021	1,318,585,070	1,132,507,731	85.9%	186,077,339	260,491,255	71.4%
2020	1,294,359,742	1,067,267,211	82.5%	227,092,531	261,687,605	86.8%
2019	1,284,220,399	1,043,754,252	81.3%	240,466,147	253,727,796	94.8%
2018	1,261,183,994	1,014,741,014	80.5%	246,442,980	248,559,707	99.1%
2017	1,233,285,889	986,459,230	80.0%	246,826,659	242,305,025	101.9%
2016	1,142,318,277	964,595,506	84.4%	177,722,771	232,291,647	76.5%
2015	1,111,720,282	945,727,947	85.1%	165,992,335	230,499,170	72.0%
2014	1,071,641,207	911,399,108	85.0%	160,242,099	223,736,632	71.6%
2013	1,051,689,455	875,652,368	83.3%	176,037,087	223,380,413	78.8%
2012	1,023,568,790	859,515,584	84.0%	164,053,206	223,065,778	73.5%
Municipal Employees' Retirement System - Police/Fire Employees**						
2021	879,330,298	719,522,469	81.8%	159,807,829	129,160,408	123.7%
2020	832,122,333	645,021,133	77.5%	187,101,200	121,245,099	154.3%
2019	748,757,148	592,318,349	79.1%	156,438,799	111,701,541	140.1%
2018	713,328,247	553,875,865	77.6%	159,452,382	106,541,018	149.7%
2017	681,046,753	518,878,790	76.2%	162,167,963	102,020,460	159.0%
2016	608,066,419	488,505,138	80.3%	119,561,281	96,834,672	123.5%
2015	567,219,865	461,702,185	81.4%	105,517,680	93,380,954	113.0%
2014	522,149,230	429,663,343	82.3%	92,485,887	89,936,969	102.8%
2013	501,133,572	399,905,455	79.8%	101,228,117	87,428,024	115.8%
2012	476,905,589	378,659,964	79.4%	98,245,625	83,164,238	118.1%

Employees' Retirement System of Rhode Island
Schedule of Funding Progress

Year End June 30,	Actuarial Accrued Liabilities	Actuarial Value of Assets	Assets as a % of Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (UAAL)	Covered Payroll	UAAL as a % of Covered Payroll

** *Each employer unit participating in MERS is financially responsible for its own plan. Therefore, the aggregate numbers shown on the above schedules reflect only the aggregate condition of MERS and do not indicate the status of any particular employer unit.*

Year End June 30,	Actuarial Accrued Liabilities	Actuarial Value of Assets	Assets as a % of Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (UAAL)	Covered Payroll	UAAL as a % of Covered Payroll
State Police Retirement Benefits Trust						
2021	198,842,972	175,036,771	88.0%	23,806,201	26,080,257	91.3%
2020	187,510,891	158,212,175	84.4%	29,298,716	26,805,499	109.3%
2019	174,511,310	148,085,853	84.9%	26,425,457	26,467,266	99.8%
2018	166,507,483	139,008,754	83.5%	27,498,729	23,455,654	117.2%
2017	156,060,856	131,320,263	84.1%	24,740,593	22,612,234	109.4%
2016	135,505,152	123,788,498	91.4%	11,716,654	22,555,315	51.9%
2015	117,056,727	115,585,013	98.7%	1,471,714	19,940,052	7.4%
2014	108,363,537	104,781,384	96.7%	3,582,153	20,814,621	17.2%
2013	102,259,438	92,916,758	90.9%	9,342,680	19,904,363	46.9%
2012	94,031,687	84,293,968	89.6%	9,737,719	23,669,619	41.1%
Judicial Retirement Benefits Trust						
2021	91,428,486	90,266,123	98.7%	1,162,363	10,651,072	10.9%
2020	88,534,540	82,419,083	93.1%	6,115,457	10,220,315	59.8%
2019	81,260,939	78,027,132	96.0%	3,233,807	9,928,890	32.6%
2018	76,198,297	73,673,771	96.7%	2,524,526	9,237,641	27.3%
2017	73,728,347	68,784,251	93.3%	4,944,096	9,569,304	51.7%
2016	65,287,527	64,401,616	98.6%	885,911	9,034,080	9.8%
2015	61,963,672	60,004,470	96.8%	1,959,202	9,285,354	21.1%
2014	57,504,663	53,830,516	93.6%	3,674,147	9,309,572	39.5%
2013	54,429,531	47,640,773	87.5%	6,788,758	8,975,536	75.6%
2012	52,085,154	43,428,646	83.4%	8,656,508	8,822,823	98.1%
Rhode Island Judicial Retirement Fund Trust^*						
2021	22,298,813	1,419,660	6.4%	20,879,153	1,051,421	1985.8%
2020	21,806,903	1,113,364	5.1%	20,693,539	1,046,167	1978.0%
2019	18,881,329	966,392	5.1%	17,914,937	1,002,164	1787.6%
2018	18,993,614	806,246	4.2%	18,187,368	1,020,224	1782.7%
2017	20,441,696	646,628	3.2%	19,795,068	988,110	2003.3%
2016	20,571,178	582,245	2.8%	19,988,933	957,007	2088.7%
2013	12,077,841	152,910	1.3%	11,924,931	1,255,256	950.0%
2012	16,387,206	-	0.0%	16,387,206	1,230,644	1331.6%

* *1.92% Discount rate used for fiscal year ending June 30, 2021.*
2.45% Discount rate used for fiscal year ending June 30, 2020.
3.13% Discount rate used for fiscal year ending June 30, 2019.
3.62% Discount rate used for fiscal year ending June 30, 2018.
3.56% Discount rate used for fiscal year ending June 30, 2017.

Year End June 30,	Actuarial Accrued Liabilities	Actuarial Value of Assets	Assets as a % of Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (UAAL)	Covered Payroll	UAAL as a % of Covered Payroll
State Police Retirement Fund Trust^						
2021	165,430,247	23,499,497	14.2%	141,930,750	-	N/A
2020	173,150,156	17,255,399	10.0%	155,894,757	-	N/A
2019	177,825,621	16,598,339	9.3%	161,227,282	-	N/A
2018	182,583,298	16,258,330	8.9%	166,324,968	-	N/A
2017	175,957,019	16,013,015	9.1%	159,944,004	-	N/A
2016	176,546,337	-	0.0%	176,546,337	-	N/A

^ Actuarial valuations are required, at a minimum, to be performed biennially. Additional years will be displayed as they become available.

Note: The most recent actuarial valuation for ERSRI is as of June 30, 2017. Data in this schedule prior to fiscal year ending June 30, 2017 was derived from actuarial valuations prepared by GRS and certified by the ERSRI Board in prior fiscal years.

Employees' Retirement System of Rhode Island
Schedule of Employees Added to and Removed from Rolls

	Added To Rolls			Removed From Rolls			Rolls - End of Year			
Year End June 30,	Number	Annual Allowance	Average Annual Allowance	Number	Annual Allowance	Average Annual Allowance	Number	Annual Allowance	Average Annual Allowance	% Increase (Decrease) in Average Annual Allowance
ERS - State Employees										
2021	711	$ 23,715,845	$ 33,356	553	$ 13,081,984	$ 23,656	11,373	$ 353,682,288	$ 31,098	1.67%
2020	478	$ 12,320,579	$ 25,775	487	$ 11,667,371	$ 23,958	11,215	$ 343,048,427	$ 30,588	0.27%
2019	388	$ 9,889,701	$ 25,489	424	$ 10,222,120	$ 24,109	11,224	$ 342,395,219	$ 30,506	0.22%
2018	806	$ 24,596,110	$ 30,516	624	$ 12,663,676	$ 20,294	11,260	$ 342,727,638	$ 30,438	1.93%
2017	455	$ 12,172,340	$ 26,752	435	$ 9,602,683	$ 22,075	11,078	$ 330,795,204	$ 29,861	0.60%
2016	613	$ 15,388,026	$ 25,103	596	$ 12,112,805	$ 20,323	11,058	$ 328,225,547	$ 29,682	0.85%
2015							11,041	$ 324,950,326	$ 29,431	N/A
ERS- Teachers										
2021	438	$ 17,567,680	$ 40,109	314	$ 12,573,348	$ 40,043	11,398	$ 486,482,598	$ 42,681	-0.06%
2020	383	$ 13,283,538	$ 34,683	305	$ 12,084,769	$ 39,622	11,274	$ 481,488,266	$ 42,708	-0.44%
2019	162	$ 4,122,942	$ 25,450	286	$ 11,548,092	$ 40,378	11,196	$ 480,289,497	$ 42,898	-0.43%
2018	477	$ 15,971,597	$ 33,483	368	$ 12,006,352	$ 32,626	11,320	$ 487,714,647	$ 43,084	-0.15%
2017	362	$ 11,066,132	$ 30,569	238	$ 9,045,857	$ 38,008	11,211	$ 483,749,402	$ 43,150	-0.69%
2016	514	$ 15,986,350	$ 31,102	329	$ 10,981,290	$ 33,378	11,087	$ 481,729,127	$ 43,450	-0.64%
2015							10,902	$ 476,724,067	$ 43,728	N/A
Teachers' Survivors Benefits Plan										
2021	62	$ 1,152,187	$ 18,584	74	$ 1,304,214	$ 17,625	599	$ 10,886,226	$ 18,174	0.60%
2020	45	$ 636,862	$ 14,152	28	$ 481,231	$ 17,187	611	$ 11,038,253	$ 18,066	-1.39%
2019	53	$ 1,265,533	$ 23,878	26	$ 441,191	$ 16,969	594	$ 10,882,622	$ 18,321	3.28%
2018	49	$ 422,704	$ 8,627	55	$ 869,336	$ -	567	$ 10,058,280	$ 17,739	-3.24%
2017*	56	$ 2,245,448	$ 40,097	-	$ -	$ -	573	$ 10,504,912	$ 18,333	14.76%
2016	101	$ 498,715	$ 4,938	121	$ 1,948,382	$ 16,102	517	$ 8,259,464	$ 15,976	-5.82%
2014							537	$ 9,709,131	$ 18,080	N/A
	** Amount added to rolls includes cost of living adjustments and other benefit changes.*									
Municipal Employees' Retirement System - General Employees										
2021	359	$ 6,070,686	$ 16,910	236	$ 3,135,712	$ 13,287	5,003	$ 79,502,672	$ 15,891	1.28%
2020	261	$ 4,447,916	$ 17,042	208	$ 2,639,782	$ 12,691	4,880	$ 76,567,698	$ 15,690	1.31%
2019	261	$ 4,626,978	$ 17,728	166	$ 2,017,433	$ 12,153	4,827	$ 74,759,564	$ 15,488	1.58%
2018	354	$ 5,430,634	$ 15,341	258	$ 3,032,762	$ 11,755	4,732	$ 72,150,019	$ 15,247	1.34%
2017	283	$ 4,347,813	$ 15,363	208	$ 2,416,800	$ 11,619	4,636	$ 69,752,147	$ 15,046	1.18%
2016	303	$ 4,738,481	$ 15,639	182	$ 2,033,016	$ 11,170	4,561	$ 67,821,134	$ 14,870	1.39%
2015							4,440	$ 65,115,669	$ 14,666	N/A
Municipal Employees' Retirement System Plan - Police/Fire Employees										
2021	44	$ 1,918,812	$ 43,609	13	$ 343,256	$ 26,404	1,046	$ 34,311,945	$ 32,803	1.71%
2020	163	$ 4,114,355	$ 25,241	11	$ 207,627	$ 18,875	1,015	$ 32,736,389	$ 32,253	-3.45%
2019	53	$ 2,044,241	$ 38,571	14	$ 334,595	$ 23,900	863	$ 28,829,661	$ 33,406	1.50%
2018	91	$ 2,094,183	$ 23,013	68	$ 854,017	$ 12,559	824	$ 27,120,015	$ 32,913	1.87%
2017	36	$ 1,308,081	$ 36,336	8	$ 138,119	$ 17,265	801	$ 25,879,849	$ 32,309	1.07%
2016	109	$ 2,563,207	$ 23,516	64	$ 754,694	$ 11,792	773	$ 24,709,887	$ 31,966	1.62%
2015							728	$ 22,901,374	$ 31,458	N/A
State Police Retirement Benefits Trust										
2021	9	$ 787,721	$ 87,525	-	$ -	$ -	88	$ 7,352,721	$ 83,554	0.54%
2020	6	$ 466,099	$ 77,683	-	$ -	$ -	79	$ 6,565,000	$ 83,101	-0.53%
2019	-	$ 589	$ -	-	$ -	$ -	73	$ 6,098,901	$ 83,547	0.01%
2018	2	$ 176,199	$ 88,100	-	$ -	$ -	73	$ 6,098,312	$ 83,539	0.15%
2017	15	$ 1,305,421	$ 87,028	-	$ -	$ -	71	$ 5,922,113	$ 83,410	1.18%
2016	17	$ 1,562,823	$ 91,931	-	$ -	$ -	56	$ 4,616,692	$ 82,441	5.28%
2015							39	$ 3,053,869	$ 78,304	N/A

Judicial Retirement Benefits Trust										
2021	6	$ 953,158	$ 158,860	2	$ 259,270	$ 129,635	31	$ 4,394,317	$ 141,752	3.43%
2020	2	$ 169,004	$ 84,502	1	$ 160,050	$ 160,050	27	$ 3,700,429	$ 137,053	-3.47%
2019	4	$ 641,939	$ 160,485	1	$ 95,654	$ 95,654	26	$ 3,691,475	$ 141,980	3.83%
2018	3	$ 409,712	$ -	-	$ -	$ -	23	$ 3,145,190	$ 136,747	-0.02%
2017	-	$ 1,390	$ -	-	$ -	$ -	20	$ 2,735,478	$ 136,774	0.05%
2016	5	$ 702,976	$ 140,595	1	$ 59,888	$ 59,888	20	$ 2,734,088	$ 136,704	4.60%
2015							16	$ 2,091,000	$ 130,688	N/A
Rhode Island Judicial Retirement Fund Trust										
2021	-	$ -	$ -	-	$ -	$ -	2	$ 399,308	$ 199,654	0.00%
2020	-	$ 292	$ -	-	$ -	$ -	2	$ 399,308	$ 199,654	0.07%
2019	-	$ -	$ -	-	$ -	$ -	2	$ 399,016	$ 199,508	0.00%
2018	-	$ -	$ -	-	$ -	$ -	2	$ 399,016	$ 199,508	0.00%
2017	-	$ -	$ -	-	$ -	$ -	2	$ 399,016	$ 199,508	0.00%
2016	2	$ 399,016	$ 199,508	-	$ -	$ -	2	$ 399,016	$ 199,508	N/A
2015							-	$ -	$ -	
State Police Retirement Fund Trust										
2021*	-	$ 105,505	$ -	14	$ 797,003	$ 56,929	243	$ 15,881,490	$ 65,356	1.35%
2020	-	$ -	$ -	2	$ 117,963	$ 58,982	257	$ 16,572,988	$ 64,486	0.07%
2019	-	$ -	$ -	7	$ 342,251	$ 48,893	259	$ 16,690,951	$ 64,444	0.64%
2018	9	$ 29,688	$ 3,299	12	$ 309,127	$ 25,761	266	$ 17,033,202	$ 64,035	N/A
2017**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2016	-	$ -	$ -	5	$ 334,183	$ 66,837	269	$ 17,312,641	$ 64,359	-0.07%
2015							274	$ 17,646,824	$ 64,404	N/A

** *Plan is required, at a minimum, to only have biennial valuations. The 2017 results are based on fiscal year 2016 valuation rolled forward one year and updated census data as of June 30, 2017 is not available.*

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

Source: The most recent actuarial valuation for ERSRI is as of June 30, 2017. Data in this schedule prior to fiscal year ending June 30, 2017 was derived from actuarial valuations prepared by GRS and certified by the ERSRI Board in prior fiscal years.

Employees' Retirement System of Rhode Island
Analysis of Financial Experience

	Basis	ERS - State Employees	ERS - Teachers	Teachers' Survivors Benefits Plan	State Police Retirement Benefit Trust	Judicial Retirement Benefit Trust	Rhode Island Judicial Retirement Fund Trust	Municipal Employees Retirement System - General Employees	Municipal Employees Retirement System - Police/Fire Employees	State Police Retirement Fund Trust
1.	UAAL as of June 30, 2020	$ 2,196	$ 3,046	$ (119)	$ 29	$ 6	$ 21	$ 227	$ 187	$ 156
2.	Impact of changes, gains and losses									
a.	Interest at 7.00% for one year*	154	213	(8)	2	-	1	16	13	11
b.	Expected amortization payments	(180)	(242)	1	(2)	-	1	(16)	(13)	14
c.	Investment experience (gain)/loss	(72)	(124)	(68)	(5)	(3)	-	(32)	(22)	-
d.	Actual COLA (3.50%)	3	5	-	-	-	-	3	1	-
e.	Salary (gain)/loss	(13)	(11)	-	-	-	-	(3)	(2)	-
f.	Non-economic liability experience (gain)/loss	12	22	(9)	-	(2)	(3)	(10)	(4)	(40)
g.	Changes in assumptions/methods	-	-	-	-	-	1	-	-	1
h.	Changes in plan provisions	-	-	-	-	-	-	-	-	-
i.	Total	$ (96)	$ (137)	$ (84)	$ (5)	$ (5)	$ -	$ (41)	$ (27)	$ (14)
3.	UAAL as of June 30, 2021	$ 2,100	$ 2,909	$ (203)	$ 24	$ 1	$ 21	$ 186	$ 160	$ 142

* *1.92% Discount rate used for RIJRFT.*

Note: All dollar amounts are shown in millions.

Source: Data in this schedule was obtained from the most recent actuarial valuation for the fiscal year ending June 30, 2021.

Employees' Retirement System of Rhode Island
Schedule of Active Member Valuation Data

Year End June 30,	Count of Active Members	Annualized Salary	Average Annual Salary	% Increase (Decrease) in Average Annual Salary	Count of Employers
ERS - State Employees					
2021	10,803	733,336,552	67,883	1.4%	N/A
2020	11,198	750,004,772	66,977	3.9%	-
2019	11,318	729,415,756	64,447	3.1%	-
2018	10,978	686,337,066	62,519	1.6%	-
2017	11,152	686,271,036	61,538	1.7%	-
2016	11,083	670,317,639	60,482	1.5%	-
2015	11,194	667,333,687	59,615	3.1%	-
2014	11,301	653,343,732	57,813	0.3%	-
2013	11,280	649,998,544	57,624	4.9%	-
2012	11,166	643,909,132	57,667	4.9%	-
ERS - Teachers					
2021	13,372	1,098,198,511	82,127	1.4%	N/A
2020	13,474	1,090,815,161	80,957	2.2%	-
2019	13,511	1,070,499,270	79,232	2.1%	-
2018	13,297	1,031,588,592	77,581	3.2%	-
2017	13,310	1,000,795,004	75,191	2.6%	-
2016	13,206	967,531,930	73,265	0.4%	-
2015	13,272	968,080,817	72,942	1.7%	-
2014	13,266	951,892,247	71,754	1.1%	-
2013	13,193	936,234,816	70,965	-1.7%	-
2012	13,212	961,958,877	72,809	0.9%	-
Teachers' Survivors Benefits Plan*					
2021	7,176	592,624,822	82,584	1.3%	N/A
2020	7,217	588,439,146	81,535	2.1%	-
2019	7,208	575,889,277	79,896	1.6%	-
2018	7,151	562,365,576	78,642	2.9%	-
2017	7,121	544,320,446	76,439	2.7%	-
2016	7,028	522,968,886	74,412	-1.1%	-
2014	7,139	542,756,917	76,027	0.1%	-
2013	7,227	544,090,898	75,286	0.5%	-
2011	7,215	537,264,193	74,465	2.4%	-
2009	7,173	509,416,780	71,019	3.4%	-
2007	7,013	466,208,437	66,478	7.7%	-

**Plan is required, at a minimum, to only have biennial valuations. Additional years will be displayed as they become available.*

Year End June 30,	Count of Active Members	Annualized Salary	Average Annual Salary	% Increase (Decrease) in Average Annual Salary	Count of Employers
Municipal Employees' Retirement System - General Employees					
2021	5,786	260,491,255	45,021	2.1%	69
2020	5,936	261,687,605	44,085	3.7%	69
2019	5,971	253,727,796	42,493	1.7%	69
2018	5,946	248,559,707	41,803	3.2%	68
2017	5,980	242,305,025	40,519	2.6%	69
2016	5,882	232,291,647	39,492	0.6%	69
2015	5,869	230,499,170	39,274	2.0%	68
2014	5,813	223,736,632	38,489	1.7%	68
2013	5,901	223,380,413	37,855	2.0%	68
2012	6,012	223,065,778	37,103	1.2%	68

Employees' Retirement System of Rhode Island
Schedule of Active Member Valuation Data

Year End June 30,	Count of Active Members	Annualized Salary	Average Annual Salary	% Increase (Decrease) in Average Annual Salary	Count of Employers
Municipal Employees' Retirement System - Police/Fire Employees					
2021	1,773	129,160,408	72,849	2.6%	53
2020	1,707	121,245,099	71,028	1.5%	52
2019	1,596	111,701,541	69,988	2.0%	49
2018	1,552	106,541,018	68,648	2.3%	48
2017	1,521	102,020,460	67,075	3.3%	48
2016	1,491	96,834,672	64,946	2.7%	47
2015	1,476	93,380,954	63,266	2.0%	45
2014	1,450	89,936,969	62,025	3.2%	45
2013	1,455	87,428,024	60,088	1.9%	45
2012	1,410	83,164,238	58,982	4.0%	45
State Police Retirement Benefits Trust					
2021	242	26,080,257	107,770	0.9%	N/A
2020	251	26,805,499	106,795	4.9%	-
2019	260	26,467,266	101,797	-1.9%	-
2018	226	23,455,654	103,786	6.5%	-
2017	232	22,612,234	97,467	6.3%	-
2016	246	22,555,315	91,688	9.0%	-
2015	237	19,940,052	84,135	1.1%	-
2014	250	20,814,621	83,258	-7.1%	-
2013	222	19,904,363	89,659	-12.5%	-
2012	231	23,669,619	102,466	7.1%	-
Judicial Retirement Benefits Trust					
2021	56	10,651,072	190,198	0.5%	N/A
2020	54	10,220,315	189,265	4.8%	-
2019	55	9,928,890	180,525	3.6%	-
2018	53	9,237,641	174,295	0.2%	-
2017	55	9,569,304	173,987	0.1%	-
2016	52	9,034,080	173,732	1.0%	-
2015	54	9,285,354	171,951	3.4%	-
2014	56	9,309,572	166,242	0.0%	-
2013	54	8,975,536	166,214	-0.2%	-
2012	53	8,822,823	166,468	6.1%	-

Employees' Retirement System of Rhode Island
Schedule of Active Member Valuation Data

Year End June 30,	Count of Active Members	Annualized Salary	Average Annual Salary	% Increase (Decrease) in Average Annual Salary	Count of Employers
Rhode Island Judicial Retirement Fund Trust**					
2021	5	1,051,421	210,284	0.5%	N/A
2020	5	1,046,167	209,233	4.4%	-
2019	5	1,002,164	200,433	-1.8%	-
2018	5	1,020,224	204,045	3.3%	-
2017	5	988,110	197,622	3.3%	-
2016	5	957,007	191,401	1.3%	-
2015	7	1,322,650	188,950	3.6%	-
2014	7	1,276,208	182,315	0.2%	-
2013	7	1,274,247	182,035	-	-

***Plan was established July 1, 2012 additional years will be displayed as they become available.*

State Police Retirement Fund Trust
This is a closed plan and does not have any active members.

Source: The most recent actuarial valuation for ERSRI is as of June 30, 2017. Data in this schedule prior to fiscal year ending June 30, 2017 was derived from actuarial valuations prepared by GRS and certified by the ERSRI Board in prior fiscal years.

Statistical Section

Statistical Section Overview

Summary of Statistical Section

The objective of the Statistical Section is to provide historical perspective, additional context, and detail to complement and assist those using the information in the financial statements, notes to the financial statements, and required supplementary information to better understand and assess ERSRI's economic condition.

ERSRI is responsible for administering seven defined plans and one defined contribution plan. The major features and benefit provisions of each plan are provided in Note 2 to the Basic Financial Statements contained in this report.

Statistical Section information is presented in the following categories:

Financial Trend Information

These schedules present financial trend information to assist the reader in understanding how ERSRI's financial position has changed over time:

- Schedule of Changes in Fiduciary Net Position
- Schedule of Employer Contribution Rates

Operational Information

These schedules are intended to provide the reader more contextual information regarding the operations of ERSRI when using the financial statement data:

- Schedule of Benefits and Refunds by Type
- Schedule of Retired Members by Type of Benefit
- Schedule of Average Benefit Payments

Demographic Information

This schedule is intended to provide the reader an enhanced understanding of the ERSRI's environment:

- Schedule of Top Ten Contributing Employers by Member Count

Sources: Unless otherwise noted, the information in the tables are derived from the annual financial reports for the relevant year.

Employees' Retirement System of Rhode Island
Schedule of Changes in Fiduciary Net Position
Last Ten Fiscal Years

ERS	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Additions:										
Member contributions	$ 89,195,296	88,817,605	90,885,505	90,044,045	$ 89,903,432	$ 91,609,012	$ 90,524,544	$ 64,948,561	$ 64,411,897	$ 63,259,241
Employer contributions	390,524,970	368,034,575	357,767,131	337,162,608	315,176,351	313,845,677	297,637,568	289,837,778	272,245,931	246,166,720
State contribution for teachers	116,290,553	112,622,731	108,635,976	102,238,747	98,120,835	96,542,150	87,997,637	84,943,801	76,700,915	70,703,201
Supplemental employer contributions	61,888,258	196,610	360,227	510,899	1,058,820	445,280	408,209	414,450	583,563	15,690,364
Interest on service credits purchased	179,363	74,163	168,105	50,057	81,455	152,432	109,084	241,501	233,769	616,647
Service credit transfers	11,081,373	7,184,864	-	6,879,644	14,456,756	1,810,490	-	37,511	12,543	-
Net Investment income (Loss)	(201,914,670)	1,677,988,263	235,945,206	394,884,656	475,027,968	654,212,917	(7,911,102)	145,549,349	863,045,946	607,847,067
Miscellaneous revenue	32,759	10,310	12,624	17,417	22,217	43,138	39,003	56,546	78,863	-
Total Additions	$ 467,277,902	2,254,929,121	793,774,774	931,788,073	$ 993,847,834	$ 1,158,661,096	$ 468,804,943	$ 586,029,497	$ 1,277,313,427	$ 1,004,283,240
Deductions:										
Retirement benefits	$ 840,547,958	825,477,030	821,227,362	821,402,171	$ 816,851,265	$ 819,929,757	$ 818,820,664	$ 800,245,103	$ 801,448,787	$ 804,829,970
Death benefits	3,018,253	2,899,048	2,629,334	2,672,900	2,778,667	2,432,232	2,878,655	3,320,919	2,700,200	2,822,400
Refund of contributions	5,072,920	3,402,726	4,736,366	5,123,636	4,678,432	5,711,781	6,306,239	8,618,199	10,062,956	9,419,071
Administrative and Other	7,627,379	6,816,615	6,600,175	6,427,974	6,407,239	6,394,177	5,722,782	6,071,486	5,671,006	5,184,623
Service credit transfers	9,866,299	7,013,843	874,191	6,514,886	13,424,486	739,477				593,421
Total Deductions	$ 866,132,809	845,609,262	836,067,428	842,141,567	$ 844,140,089	$ 835,207,424	$ 833,728,340	$ 818,255,707	$ 819,882,949	$ 822,849,485
Net change	(398,854,907)	1,409,319,859	(42,292,654)	89,646,506	149,707,745	323,453,672	(364,923,397)	(232,226,210)	457,430,478	181,433,755
Fiduciary net position, beginning of year	7,728,867,805	6,319,547,946	6,361,840,600	6,272,194,094	6,122,486,349	5,799,032,677	6,163,956,074	6,396,182,285	5,938,751,807	5,757,318,052
Net position restricted for benefits	$ 7,330,012,898	7,728,867,805	6,319,547,946	6,361,840,600	$ 6,272,194,094	$ 6,122,486,349	$ 5,799,032,677	$ 6,163,956,075	$ 6,396,182,285	$ 5,938,751,807

TSB	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Additions:										
Member contributions	$ 755,501	736,193	745,760	745,856	$ 744,035	$ 589,883	$ 642,276	$ 603,388	$ 609,168	$ 628,553
Employer contributions	755,501	736,193	745,760	745,856	744,035	589,883	642,276	603,388	609,168	628,553
Net Investment income (Loss)	(11,261,771)	92,054,850	12,730,241	21,155,071	24,552,340	33,277,060	(51,004)	6,951,465	39,657,338	26,705,768
Miscellaneous revenue	-	-	-	-	-	4	-	-	-	
Total Additions	$ (9,750,769)	93,527,236	14,221,761	22,646,783	$ 26,040,410	$ 34,456,830	$ 1,233,548	$ 8,158,241	$ 40,875,674	$ 27,962,874
Deductions:										
Retirement benefits	$ 11,259,389	10,650,980	10,436,948	10,236,365	$ 9,602,181	$ 8,405,649	$ 8,097,067	$ 7,750,955	$ 7,421,004	$ 7,127,856
Death benefits	-	-	-	-	-	-	-	-	-	-
Refund of contributions	753,831	805,371	592,550	454,153	275,135	266,523	195,601	241,427	201,986	341,232
Administrative and Other	413,199	356,460	350,178	332,273	330,288	309,283	267,475	276,010	260,585	227,789
Total Deductions	$ 12,426,419	11,812,811	11,379,676	11,022,791	$ 10,207,604	$ 8,981,455	$ 8,560,143	$ 8,268,392	$ 7,883,575	$ 7,696,877
Net change	(22,177,188)	81,714,425	2,842,085	11,623,992	15,832,806	25,475,375	(7,326,595)	(110,151)	32,992,099	20,265,997
Fiduciary net position, beginning of year	423,973,742	342,259,317	339,417,232	327,793,239	311,960,433	286,485,058	293,811,653	293,921,803	260,929,704	240,663,707
Net position restricted for benefits	$ 401,796,554	423,973,742	342,259,317	339,417,232	$ 327,793,239	$ 311,960,433	$ 286,485,058	$ 293,811,652	$ 293,921,803	$ 260,929,704

Employees' Retirement System of Rhode Island
Schedule of Changes in Fiduciary Net Position
Last Ten Fiscal Years

MERS	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Additions:										
Member contributions	$ 20,190,121	19,495,261	18,732,373	18,042,478	$ 17,709,035	$ 17,412,163	$ 16,806,273	$ 11,592,465	$ 11,312,953	$ 11,233,301
Employer contributions	61,955,109	60,404,125	56,476,661	50,853,489	47,003,638	48,542,830	46,597,024	44,576,294	37,897,122	35,553,402
New employer contributions	51,731,258	1,232,204	12,757,430							
Additional employer contributions	230,000									
Supplemental employer contributions	123,590									
Interest on service credits purchased	10,459	7,674	2,981	814	16,143	44,273	36,443	44,515	69,544	379,124
Service credit transfers	4,882,290	11,083,939	874,191	1,619,044	3,114,275	5,549,444		-	-	593,421
Net Investment income (Loss)	(57,074,740)	449,777,894	60,747,919	101,029,412	116,765,906	157,202,022	(471,319)	32,626,946	185,631,284	125,322,718
Miscellaneous revenue	16,164	855	786	1,213	147	51,557	64,748	15,218	16,532	-
Total Additions	$ 82,064,251	542,001,952	149,592,341	171,546,450	$ 184,609,144	$ 228,802,289	$ 63,033,169	$ 88,855,438	$ 234,927,435	$ 173,081,966
Deductions:										
Retirement benefits	$ 117,480,104	111,963,727	106,878,477	101,357,689	$ 96,822,308	$ 96,075,721	$ 93,966,785	$ 86,995,021	$ 86,388,373	$ 84,724,492
Death benefits	692,800	881,725	884,875	761,200	702,000	778,333	603,208	678,865	763,200	695,200
Refund of contributions	899,992	602,720	1,327,483	1,180,637	1,207,726	1,425,882	1,543,855	1,360,545	2,151,611	2,180,177
Service credit transfer payments	6,097,364	11,254,958	-	1,983,801	4,146,545	6,620,457		37,511	12,543	
Administrative and Other	2,038,965	1,713,745	1,676,254	1,579,595	1,566,863	1,485,182	1,267,911	1,303,530	1,162,418	1,005,124
Total Deductions	$ 127,209,225	126,416,875	110,767,089	106,862,922	$ 104,445,442	$ 106,385,575	$ 97,381,759	$ 90,375,472	$ 90,478,145	$ 88,604,993
Net change	(45,144,974)	415,585,077	38,825,252	64,683,528	80,163,702	122,416,714	(34,348,590)	(1,520,034)	144,449,290	84,476,973
Fiduciary net position, beginning of year	2,079,550,594	1,663,965,517	1,625,140,265	1,560,456,739	1,480,293,037	1,357,876,323	1,392,224,913	1,393,744,947	1,249,295,657	1,164,818,684
Net position restricted for benefits	$ 2,034,405,620	2,079,550,594	1,663,965,517	1,625,140,265	$ 1,560,456,739	$ 1,480,293,037	$ 1,357,876,323	$ 1,392,224,913	$ 1,393,744,947	$ 1,249,295,657

SPRBT	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Additions:										
Member contributions	$ 2,387,036	2,324,096	2,345,831	2,130,140	$ 2,007,867	$ 2,061,465	$ 2,034,676	$ 1,731,585	$ 2,033,664	$ 1,706,227
Employer contributions	5,210,604	5,240,772	4,877,630	3,566,922	2,797,003	2,980,219	4,004,656	3,432,359	3,330,889	2,103,209
Interest on service credits purchased	16,056	16,003	20,665	1,088	2,002	3,635	391	3,368	4,660	5,889
Net Investment income (Loss)	(5,343,472)	41,840,071	5,641,739	9,159,909	10,298,412	13,694,012	58,549	2,655,869	14,124,238	8,844,873
Miscellaneous revenue	44	91	4,291	166	245	174	29	325	759	-
Total Additions	$ 2,270,268	49,421,033	12,890,156	14,858,225	$ 15,105,529	$ 18,739,505	$ 6,098,301	$ 7,823,506	$ 19,494,210	$ 12,660,198
Deductions:										
Retirement benefits	$ 7,745,057	6,871,757	6,174,388	6,005,175	$ 5,933,726	$ 5,078,677	$ 4,585,258	$ 2,496,511	$ 1,659,383	$ 1,038,157
Refund of contributions	104,295	-	54,536	42,043	90,127	63,301	-	-	107,921	-
Administrative and Other	202,845	153,233	158,004	139,604	136,371	125,445	102,055	99,782	83,318	60,143
Total Deductions	$ 8,052,197	7,024,990	6,386,928	6,186,822	$ 6,160,224	$ 5,267,423	$ 4,687,313	$ 2,596,293	$ 1,850,622	$ 1,098,300
Net change	(5,781,929)	42,396,043	6,503,228	8,671,403	8,945,305	13,472,082	1,410,988	5,227,213	17,643,588	11,561,898
Fiduciary net position, beginning of year	196,304,643	153,908,600	147,405,372	138,733,969	129,788,664	116,316,582	114,905,593	109,678,380	92,034,792	80,472,894
Net position restricted for benefits	$ 190,522,714	196,304,643	153,908,600	147,405,372	$ 138,733,969	$ 129,788,664	$ 116,316,581	$ 114,905,593	$ 109,678,380	$ 92,034,792

TABLE 1

Employees' Retirement System of Rhode Island
Schedule of Changes in Fiduciary Net Position
Last Ten Fiscal Years

JRBT	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Additions:										
Member contributions	1,398,104	1,215,454	1,204,448	1,109,161	1,142,163	1,117,518	1,052,902	1,120,609	1,092,790	1,042,291
Employer contributions	2,611,262	2,245,823	2,189,255	1,922,023	2,057,529	2,057,159	2,410,039	2,709,397	2,543,510	1,752,049
Net Investment income (Loss)	(2,742,357)	21,815,087	2,955,374	4,819,915	5,376,763	7,107,208	28,787	1,367,527	7,220,591	4,528,408
Miscellaneous revenue	-	-	-	-	-	-	-	-	-	-
Total Additions	1,267,009	25,276,364	6,349,077	7,851,099	8,576,455	10,281,885	3,491,728	5,197,533	10,856,891	7,322,748
Deductions:										
Retirement benefits	4,699,733	3,983,311	3,724,119	3,608,844	2,833,077	2,740,166	2,530,567	1,800,863	1,631,368	1,503,666
Death benefits	-	-	-	-	-	-	-	8,000	-	-
Refund of contributions					123,329	-	-	-	-	-
Administrative and Other	97,187	79,690	79,652	73,533	71,270	65,088	52,550	51,039	42,538	32,823
Total Deductions	4,796,920	4,063,001	3,803,771	3,682,377	3,027,676	2,805,254	2,583,117	1,859,902	1,673,906	1,536,489
Net change	(3,529,911)	21,213,363	2,545,306	4,168,722	5,548,779	7,476,631	908,611	3,337,631	9,182,985	5,786,259
Fiduciary net position, beginning of year	101,371,284	80,157,921	77,612,617	73,443,894	67,895,115	60,418,484	59,509,873	56,172,242	46,989,257	41,202,998
Net position restricted for benefits	97,841,373	101,371,284	80,157,921	77,612,617	73,443,894	67,895,115	60,418,484	59,509,873	56,172,242	46,989,257

RIJRFT	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Additions:										
Member contributions	124,547	126,171	125,540	121,904	116,757	116,667	135,454	158,718	153,145	152,910
Employer contributions	405,345	399,138	399,016	399,016	399,012	332,340	140,141	-	-	-
Net Investment income (Loss)	(22,707)	177,802	22,391	39,005	43,510	63,669	3,869	9,094	12,045	-
Miscellaneous revenue	-	-	-	-	-	-	-	-	-	-
Total Additions	507,185	703,111	546,947	559,925	559,279	512,676	279,464	167,812	165,190	152,910
Deductions:										
Retirement benefits	500,278	395,828	399,016	399,016	399,015	399,015	231,175	-	-	-
Administrative and Other	1,326	988	959	762	646	558	361	237	77	-
Total Deductions	501,604	396,816	399,975	399,778	399,661	399,573	231,536	237	77	-
Net change	5,581	306,295	146,972	160,147	159,618	113,103	47,928	167,575	165,113	152,910
Fiduciary net position, beginning of year	1,419,660	1,113,365	966,393	806,246	646,628	533,525	485,597	318,023	152,910	-
Net position restricted for benefits	1,425,241	1,419,660	1,113,365	966,393	806,246	646,628	533,525	485,598	318,023	152,910

TABLE 1

Employees' Retirement System of Rhode Island
Schedule of Changes in Fiduciary Net Position
Last Ten Fiscal Years

SPRFT	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Additions:										
Employer contributions	$ 16,387,092	16,387,092	16,387,092	16,387,092	$ 16,387,092	$ 16,566,076	$ -	$ -	$ -	$ -
Supplemental employer contributions	-	-	-	-	-	15,000,000	-	-	-	-
Net Investment income (Loss)	(271,738)	6,144,151	868,442	768,973	1,136,938	1,838,792	-	-	-	-
Miscellaneous revenue	-	-	-	75	-	-	-	-	-	-
Total Additions	$ 16,115,354	22,531,243	17,255,534	17,156,140	$ 17,524,030	$ 33,404,868	$ -	$ -	$ -	$ -
Deductions:										
Retirement benefits	$ 15,697,877	16,268,950	16,581,299	16,799,403	$ 17,273,412	$ 17,391,853	$ -	$ -	$ -	$ -
Administrative and Other	22,296	18,194	17,175	16,727	5,304	-	-	-	-	-
Total Deductions	$ 15,720,173	16,287,144	16,598,474	16,816,130	$ 17,278,716	$ 17,391,853	$ -	$ -	$ -	$ -
Net change	395,181	6,244,099	657,060	340,010	245,314	16,013,015	-	-	-	-
Fiduciary net position, beginning of year	23,499,498	17,255,399	16,598,339	16,258,329	16,013,015	-	-	-	-	-
Net position restricted for benefits	$ 23,894,679	23,499,498	17,255,399	16,598,339	$ 16,258,329	$ 16,013,015	$ -	$ -	$ -	$ -

Defined Contribution Plan	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Additions:										
Member contributions*	$ 106,933,744	100,919,227	101,385,619	96,801,137	$ 92,018,737	$ 89,202,835	$ 83,417,174	$ 101,335,771	$ 98,970,355	$ 92,972,909
Employer contributions	32,841,236	30,647,375	30,030,113	29,132,886	27,828,956	27,229,405	26,117,372	28,222,896	27,755,911	26,070,631
Net Investment income (Loss)	(237,174,641)	344,477,465	45,539,546	59,988,056	61,431,415	74,924,355	4,314,212	10,458,458	32,157,857	4,663,091
Miscellaneous revenue	2,500	4,714	10,733	9,690	11,500	7,500	6,550	911		-
Total Additions	$ (97,397,161)	476,048,781	176,966,011	185,931,769	$ 181,290,608	$ 191,364,095	$ 113,855,308	$ 140,018,036	$ 158,884,123	$ 123,706,631
Deductions:										
Distributions	$ 46,276,404	32,062,306	23,675,020	19,633,067	$ 16,181,976	$ 12,298,997	$ 9,224,425	$ 5,331,383	$ 2,643,923	$ 338,109
Administrative and other	1,468,943	1,555,397	962,910	1,342,728	1,232,204	1,177,819	1,160,872	1,298,471	1,257,208	963,548
Total Deductions	$ 47,745,347	33,617,703	24,637,930	20,975,795	$ 17,414,180	$ 13,476,816	$ 10,385,297	$ 6,629,854	$ 3,901,131	$ 1,301,657
Net change	(145,142,508)	442,431,078	152,328,081	164,955,974	163,876,428	177,887,279	103,470,011	133,388,182	154,982,992	122,404,974
Fiduciary net position, beginning of year	1,615,724,999	1,173,293,921	1,020,965,840	856,009,867	692,133,439	514,246,160	410,776,149	277,387,966	122,404,974	-
Net position restricted for benefits	$ 1,470,582,491	1,615,724,999	1,173,293,921	1,020,965,840	$ 856,009,867	$ 692,133,439	$ 514,246,160	$ 410,776,148	$ 277,387,966	$ 122,404,974

* Effective July 1, 2015 members with at least 20 years of service as of June 30, 2012 were no longer required to participate in the Defined Contribution Plan. These members participate solely in the Defined Benefit Plan. This was the result of the mediated settlement from the pension reform challenge.

TABLE 2

Employees' Retirement System of Rhode Island
Schedule of Employer Contribution Rates

Valuation Date as of June 30,	Fiscal Year Ending June 30,	Employer Contribution Rate
ERS - State Employees		
2021	2024	28.97%
2020	2023	28.01%
2019	2022	28.01%
2018	2021	27.54%
2017	2020	26.39%
2016	2019	26.28% [5]
2015	2018	24.87%
2014	2017	25.34% [4]
2013	2016	23.64%
2012	2015	23.33%
ERS - Teachers		
2021	2024	26.16%
2020	2023	26.16%
2019	2022	25.72%
2018	2021	25.25%
2017	2020	24.61%
2016	2019	23.51%
2015	2018	23.13%
2014	2017	23.13% [4]
2013	2016	23.14%
2012	2015	22.60%

[1] *Restated after adopting the amendment of Article 7.*

[2] *Restated after adopting the amendment of Article 16.*

[3] *Restated after reflecting the Rhode Island Retirement Security Act of 2011.*

[4] *Restated after adopting the amendment of Article 21.*

[5] *Restated for voluntary retirement incentive offered.*

TABLE 2

Employees' Retirement System of Rhode Island
Schedule of Employer Contribution Rates

Valuation Date as of June 30,	Fiscal Year Ending June 30,	Contribution Rate
Municipal Employees' Retirement System - General Employees*		
2021	2024	11.87%
2020	2023	12.68%
2019	2022	12.57%
2018	2021	12.57%
2017	2020	12.43%
2016	2019	12.23%
2015	2018	11.91%
2014	2017	12.06%
2013	2016	12.74%
2012	2015	12.63%
Municipal Employees' Retirement System - Police/Fire Employees*		
2021	2024	19.24%
2020	2023	20.77%
2019	2022	19.70%
2018	2021	19.57%
2017	2020	19.31%
2016	2019	17.20%
2015	2018	15.90%
2014	2017	16.15%
2013	2016	16.89%
2012	2015	17.26%

* Each employer unit participating in MERS is financially responsible for its own plan. Therefore, the aggregate numbers shown on the above schedules reflect only the aggregate condition of MERS and does not indicate the status of any particular employer unit.

Employees' Retirement System of Rhode Island
Schedule of Employer Contribution Rates

State Police Retirement Benefits Trust

Valuation Date as of June 30,	Fiscal Year Ending June 30,	Employer Contribution Rate
2021	2024	20.66%
2020	2023	20.87%
2019	2022	19.24%
2018	2021	19.82%
2017	2020	18.48%
2016	2019	14.74%
2015	2018	12.22%
2014	2017	12.66% [3]
2013	2016	17.22%
2012	2015	17.24%

[1] *Revised pursuant to Article 22 (2008).*

[2] *Restated after reflecting the Rhode Island Retirement Security Act of 2011.*

[3] *Restated to reflect impact of Article 21.*

Judicial Retirement Benefits Trust

Valuation Date as of June 30,	Fiscal Year Ending June 30,	Employer Contribution Rate
2021	2024	22.12%
2020	2023	24.16%
2019	2022	21.82%
2018	2021	21.61%
2017	2020	21.30%
2016	2019	20.28%
2015	2018	21.13%
2014	2017	21.58% [4]
2013	2016	26.80%
2012	2015	28.32%

[1] *Reflects changes in benefit provisions enacted by Article 35.*

[2] *Restated to reflect changes in benefit provisions enacted by Article 16.*

[3] *Restated after reflecting the Rhode Island Retirement Security Act of 2011.*

[4] *Restated after reflecting the impact of Article 21.*

Employees' Retirement System of Rhode Island
Schedule of Employer Contribution Rates

Teachers' Survivors Benefits Plan
The calculation for the contributions for TSB are prescribed in Rhode Island General Law §16-16-35. The annual salary limit used in the calculation of the 2% contribution rate due to the Teachers Survivors' Benefit Plan is $11,500; one-half (1/2) of the cost shall be contributed by the member by deductions from his or her salary, and the other half (1/2) shall be contributed and paid by the respective city, town, or school district by which the member is employed.

Rhode Island Judicial Retirement Fund Trust
RIJRFT is a closed plan and the actuarial determined contribution is calculated as a level dollar amount.

State Police Retirement Fund Trust
SPRFT is a closed plan and the actuarial determined contribution is calculated as a level dollar amount.

Note: The most recent actuarial valuation for ERSRI is as of June 30, 2019. Data in this schedule prior to fiscal year ending June 30, 2019 was derived from actuarial valuations prepared by GRS and certified by the ERSRI Board in prior fiscal years.

TABLE 3

Employees' Retirement System of Rhode Island
Schedule of Benefits and Refunds by Type
Last Ten Fiscal Years

ERS	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Deductions:										
Service Retirement	$ 770,842,815	758,575,613	756,094,996	756,671,233	$ 753,958,832	$ 756,807,010	$ 757,469,257	$ 755,331,153	$ 768,819,629	$ 772,592,699
Survivor Retirement	36,625,104	30,896,985	35,243,048	35,260,158	34,500,460	34,563,403	36,200,420	21,694,578	6,768,753	6,635,029
Disability Retirement	32,297,027	35,194,554	29,055,170	28,609,057	27,502,977	27,648,067	24,211,576	22,262,866	24,860,878	24,574,363
Supplemental Retirement	783,012	809,878	834,148	861,723	888,996	911,277	939,411	956,506	999,527	1,027,913
Death benefits	3,018,253	2,899,048	2,629,334	2,672,900	2,778,667	2,432,232	2,878,655	3,320,919	2,700,200	2,822,400
Refund of contributions	5,072,920	3,402,726	4,736,366	5,123,636	4,678,432	5,711,781	6,306,239	8,618,199	10,062,956	9,417,426
Total	$ 848,639,131	831,778,804	828,593,062	829,198,707	$ 824,308,364	$ 828,073,769	$ 828,005,558	$ 812,184,221	$ 814,211,943	$ 817,069,830

TSB	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Deductions:										
Survivor Retirement	$ 11,259,389	10,650,980	10,436,948	10,236,365	$ 9,602,181	$ 8,405,649	$ 8,097,067	$ 7,750,955	$ 7,421,004	$ 7,127,822
Refund of contributions	753,831	805,371	592,550	454,152	275,135	266,523	195,601	241,427	201,986	342,877
Total	$ 12,013,220	11,456,351	11,029,498	10,690,517	$ 9,877,316	$ 8,672,172	$ 8,292,668	$ 7,992,382	$ 7,622,990	$ 7,470,699

MERS	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Deductions:										
Service Retirement	$ 96,895,366	92,934,701	82,293,176	85,618,391	$ 81,864,846	$ 81,297,434	$ 80,167,328	$ 76,240,655	$ 77,579,600	$ 76,142,106
Survivor Retirement	6,527,768	6,251,068	5,746,999	5,178,516	4,931,551	4,986,860	5,281,693	3,029,126	739,423	684,165
Disability Retirement	13,807,862	12,777,958	11,838,302	10,560,782	10,025,911	9,791,427	8,517,764	7,725,240	8,069,350	7,898,221
Death benefits	692,800	881,725	884,875	761,200	702,000	778,333	603,208	678,865	763,200	695,200
Refund of contributions	899,992	602,720	1,327,483	1,180,639	1,207,726	1,425,882	1,543,855	1,360,545	2,151,611	2,180,177
Total	$ 118,823,788	113,448,172	102,090,835	103,299,528	$ 98,732,034	$ 98,279,937	$ 96,113,847	$ 89,034,430	$ 89,303,185	$ 87,599,869

SPRBT	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Deductions:										
Service Retirement	$ 7,246,560	6,374,856	5,677,926	5,508,713	$ 5,449,859	$ 4,673,084	$ 4,179,857	$ 2,122,230	$ 1,363,462	$ 821,056
Survivor Retirement	114,101	113,486	113,428	113,428	113,428	114,234	114,196	112,696	112,696	33,876
Disability Retirement	384,396	383,415	383,034	383,034	370,439	291,359	291,205	261,585	183,225	183,225
Refund of contributions	104,295	-	54,536	42,043	90,127	63,301	-	-	107,921	-
Total	$ 7,849,352	6,871,757	6,228,924	6,047,218	$ 6,023,853	$ 5,141,979	$ 4,585,258	$ 2,496,511	$ 1,767,304	$ 1,038,157

JRBT	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Deductions:										
Service Retirement	$ 4,290,141	3,574,532	3,362,118	3,217,719	$ 2,461,524	$ 2,388,732	$ 2,222,569	$ 1,649,394	$ 1,594,682	$ 1,466,980
Survivor Retirement	405,593	408,780	362,001	391,125	371,553	351,434	307,998	151,469	36,686	36,686
Death benefits	-	-	-	-	-	-	-	8,000	-	-
Refund of contributions	-	-	-	-	123,329	-	-	-	-	-
Total	$ 4,695,734	3,983,312	3,724,119	3,608,844	$ 2,956,406	$ 2,740,166	$ 2,530,567	$ 1,808,863	$ 1,631,368	$ 1,503,666

TABLE 3

Employees' Retirement System of Rhode Island
Schedule of Benefits and Refunds by Type
Last Ten Fiscal Years

RIJRFT	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Deductions:										
Service Retirement	$ 500,278	395,828	399,016	399,016	$ 399,015	$ 399,015	$ 231,175	$ -	$ -	$ -
Total	$ 500,278	395,828	399,016	399,016	$ 399,015	$ 399,015	$ 231,175	$ -	$ -	$ -

SPRFT	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Deductions:										
Service Retirement	$ 12,583,686	13,061,958	13,446,562	13,594,008	$ 13,973,618	$ 14,245,610	$ -	$ -	$ -	$ -
Survivor Retirement	2,155,738	2,223,458	2,151,349	2,222,007	2,273,423	2,092,513	-	-	-	-
Disability Retirement	958,453	983,534	983,388	983,388	1,026,371	1,053,730	-	-	-	-
Total	$ 15,697,877	16,268,950	16,581,299	16,799,403	$ 17,273,412	$ 17,391,853	$ -	$ -	$ -	$ -

Employees' Retirement System of Rhode Island
Schedule of Retired Members by Type of Pension Benefit

ERS - State Employees

Monthly Amount	Service Retirement Allowance	Option One: Joint and Survivor Full	Option Two: Joint and Survivor Half	Service Retirement Allowance Plus	Total
Under $500	468	85	28		581
$500-$1,000	1,097	153	88		1,338
$1,000-$1,500	1,080	183	131	2	1,396
$1,500-$2,000	1,101	166	128	14	1,409
$2,000-$2,500	1,030	162	140	148	1,480
$2,500-$3,000	874	121	113	160	1,268
$3,000-$3,500	611	131	123	133	998
$3,500-$4,000	488	112	129	94	823
$4,000-$4,500	373	91	108	67	639
$4,500-$5,000	281	50	74	60	465
$5,000-$5,500	219	31	44	29	323
$5,500-$6,000	142	23	42	13	220
$6,000-$6,500	90	18	30	9	147
$6,500-$7,000	55	15	19	3	92
$7,000-$7,500	41	11	19	4	75
Over $7,500	66	21	24	8	119
Total	**8,016**	**1,373**	**1,240**	**744**	**11,373**

ERS - Teachers

Monthly Amount	Service Retirement Allowance	Option One: Joint and Survivor Full	Option Two: Joint and Survivor Half	Service Retirement Allowance Plus	Total
Under $500	65	10	1		76
$500-$1,000	224	62	30		316
$1,000-$1,500	402	106	57		565
$1,500-$2,000	508	115	88	4	715
$2,000-$2,500	552	109	86	6	753
$2,500-$3,000	771	93	113	13	990
$3,000-$3,500	1,348	117	158	10	1,633
$3,500-$4,000	1,514	129	208	74	1,925
$4,000-$4,500	1,301	91	238	113	1,743
$4,500-$5,000	1,118	42	155	67	1,382
$5,000-$5,500	631	24	54	21	730
$5,500-$6,000	238	9	39	16	302
$6,000-$6,500	94	5	16	3	118
$6,500-$7,000	58	2	4	2	66
$7,000-$7,500	28		1		29
Over $7,500	46	3	6		55
Total	**8,898**	**917**	**1,254**	**329**	**11,398**

Employees' Retirement System of Rhode Island
Schedule of Retired Members by Type of Pension Benefit

Teachers' Survivors Benefits Plan

Life Insurance Benefit	Life Insurance	N/A	N/A	N/A	Total
Under $10,000	2				2
$10,000-$11,000	2				2
$11,000-$12,000	3				3
$12,000-$13,000	7				7
$13,000-$14,000	17				17
$14,000-$15,000	17				17
$15,000-$16,000	34				34
$16,000-$17,000	128				128
$17,000-$18,000	140				140
$18,000-$19,000	84				84
$19,000-$20,000	51				51
Over $20,000	114				114
Total	**599**				**599**

Municipal Employees' Retirement System - General Employees

Monthly Amount	Service Retirement Allowance	Option One: Joint and Survivor Full	Option Two: Joint and Survivor Half	Service Retirement Allowance Plus	Total
Under $500	675	114	51	1	841
$500-$1,000	1,038	279	156	8	1,481
$1,000-$1,500	695	202	100	15	1,012
$1,500-$2,000	424	129	80	16	649
$2,000-$2,500	291	70	75	28	464
$2,500-$3,000	151	40	31	34	256
$3,000-$3,500	73	15	23	24	135
$3,500-$4,000	44	9	8	10	71
$4,000-$4,500	27	2	5	2	36
$4,500-$5,000	22	4	5	3	34
$5,000-$5,500	8	2	1		11
$5,500-$6,000	2	1			3
$6,000-$6,500	3		1	1	5
$6,500-$7,000		1			1
$7,000-$7,500	1				1
Over $7,500	2	1			3
Total	**3,456**	**869**	**536**	**142**	**5,003**

Employees' Retirement System of Rhode Island
Schedule of Retired Members by Type of Pension Benefit

Municipal Employees' Retirement System - Police/Fire Employees

Monthly Amount	Service Retirement Allowance	Option One: Joint and Survivor Full	Option Two: Joint and Survivor Half	Service Retirement Allowance Plus	Total
Under $500	22	1	4	3	30
$500-$1,000	54	1	18	6	79
$1,000-$1,500	28	5	61	6	100
$1,500-$2,000	24	3	77	2	106
$2,000-$2,500	15	11	94	1	121
$2,500-$3,000	3	14	121	1	139
$3,000-$3,500	6	20	163		189
$3,500-$4,000	2	5	107		114
$4,000-$4,500	2	10	79		91
$4,500-$5,000	1	4	34		39
$5,000-$5,500		3	19		22
$5,500-$6,000			11		11
$6,000-$6,500			4		4
$6,500-$7,000			1		1
$7,000-$7,500					
Over $7,500					
Total	**157**	**77**	**793**	**19**	**1,046**

State Police Retirement Benefits Trust

Monthly Amount	Service Retirement Allowance	Option One: Joint and Survivor Full	Option Two: Joint and Survivor Half	Service Retirement Allowance Plus	Total
Under $500					
$500-$1,000					
$1,000-$1,500	2				2
$1,500-$2,000					
$2,000-$2,500					
$2,500-$3,000	1				1
$3,000-$3,500	1				1
$3,500-$4,000	4				4
$4,000-$4,500	2				2
$4,500-$5,000	1				1
$5,000-$5,500	2				2
$5,500-$6,000	9				9
$6,000-$6,500	4				4
$6,500-$7,000	9				9
$7,000-$7,500	7				7
Over $7,500	46				46
Total	**88**	**0**	**0**	**0**	**88**

Employees' Retirement System of Rhode Island
Schedule of Retired Members by Type of Pension Benefit

Judicial Retirement Benefits Trust

Monthly Amount	Service Retirement Allowance	Option One: Joint and Survivor Full	Option Two: Joint and Survivor Half	Service Retirement Allowance Plus	Total
Under $500					
$500-$1,000					
$1,000-$1,500					
$1,500-$2,000					
$2,000-$2,500					
$2,500-$3,000					
$3,000-$3,500	1				1
$3,500-$4,000					
$4,000-$4,500					
$4,500-$5,000					
$5,000-$5,500	2				2
$5,500-$6,000					
$6,000-$6,500					
$6,500-$7,000	2				2
$7,000-$7,500	2				2
Over $7,500	24				24
Total	**31**	**0**	**0**	**0**	**31**

Rhode Island Judicial Retirement Fund Trust

Monthly Amount	Service Retirement Allowance	Option One: Joint and Survivor Full	Option Two: Joint and Survivor Half	Service Retirement Allowance Plus	Total
Under $500					
$500-$1,000					
$1,000-$1,500					
$1,500-$2,000					
$2,000-$2,500					
$2,500-$3,000					
$3,000-$3,500					
$3,500-$4,000					
$4,000-$4,500					
$4,500-$5,000					
$5,000-$5,500					
$5,500-$6,000					
$6,000-$6,500					
$6,500-$7,000					
$7,000-$7,500					
Over $7,500	2				2
Total	**2**	**0**	**0**	**0**	**2**

Employees' Retirement System of Rhode Island
Schedule of Retired Members by Type of Pension Benefit

State Police Retirement Fund Trust

Monthly Amount	Service Retirement Allowance	Option One: Joint and Survivor Full	Option Two: Joint and Survivor Half	Service Retirement Allowance Plus	Total
Under $500					
$500-$1,000					
$1,000-$1,500	2				2
$1,500-$2,000	3				3
$2,000-$2,500	4				4
$2,500-$3,000	9				9
$3,000-$3,500	5				5
$3,500-$4,000	20				20
$4,000-$4,500	19				19
$4,500-$5,000	22				22
$5,000-$5,500	27				27
$5,500-$6,000	32				32
$6,000-$6,500	39				39
$6,500-$7,000	33				33
$7,000-$7,500	13				13
Over $7,500	15				15
Total	**243**				**243**

Service Retirement Allowance - is a life annuity that is calculated based on the member's years of service credit and average salary as a participating employee.

Option 1: Joint and Survivor Full - is an annuity that is actuarially reduced based on the age difference of the member and the designated beneficiary. The retirement benefit that the member and the beneficiary (upon death of the member) will receive will be equal for the respective lives of each recipient.

Option 2: Joint and Survivor Half - is an annuity that is actuarially reduced based on the age difference of the member and the designated beneficiary. The retirement benefit for the member is reduced based on the actuarial reduction calculation. However, this benefit will be higher than the Joint and Survivor Full option. Upon the death of the member, the designated beneficiary will receive 50% of the member's benefit for the remainder of their life.

Service Retirement Allowance Plus - is a life annuity that is calculated based on the member's years of service credit and average salary as a participating employee. In addition, a supplemental amount will be added to the pension benefit. The supplementary amount is determined based on the member's age at retirement and a percentage of an estimate of the average Social Security payment that a member might receive at the age of 62 (calculated on a national average figure). During the month the member turns 62, the pension benefit amount will be reduced by the full national average amount of Social Security payment that a person might receive at the age of 62 (calculated on a national average figure). Also, the pension benefit will be reduced by the full estimated amount and not by the supplemental amount that the member had been receiving. Estimate of Social Security benefits used by ERSRI to calculate pension benefits are general estimates and are not guaranteed by ERSRI or the Social Security Administration (SSA). This option is not related to a member's participation in Social Security or any programs of the SSA.

Note: This schedule was prepared based on the source data that was certified in the most recent actuarial valuations as of June 30, 2021.

TABLE 5

Employees' Retirement System of Rhode Island
Schedule of Average Benefit Payments - Retirement

ERS - State Employees

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ 25,523	$ 11,094	$ 11,656	$ 17,270	$ 24,070	$ 34,643	$ 47,793	$ 31,098
	Average monthly benefit	$ 2,127	$ 925	$ 971	$ 1,439	$ 2,006	$ 2,887	$ 3,983	$ 2,592
	Average monthly FAC	$ 2,581	$ 2,607	$ 3,340	$ 3,777	$ 4,311	$ 4,665	$ 5,365	$ 4,061
	Number of retired members	2,968	248	756	893	1,268	2,282	2,958	11,373
2020	**Average annual benefit**	$ 25,084	$ 11,450	$ 11,764	$ 17,387	$ 24,271	$ 34,763	$ 47,626	$ 30,588
	Average monthly benefit	$ 2,090	$ 954	$ 980	$ 1,449	$ 2,023	$ 2,897	$ 3,969	$ 2,549
	Average monthly FAC	$ 2,564	$ 2,768	$ 3,444	$ 3,821	$ 4,364	$ 4,674	$ 5,325	$ 3,995
	Number of retired members	3,289	219	730	849	1,216	2,236	2,676	11,215
2019	**Average annual benefit**	$ 24,840	$ 11,793	$ 11,972	$ 17,505	$ 24,418	$ 34,958	$ 47,848	$ 30,506
	Average monthly benefit	$ 2,070	$ 983	$ 998	$ 1,459	$ 2,035	$ 2,913	$ 3,987	$ 2,542
	Average monthly FAC	$ 2,550	$ 2,894	$ 3,562	$ 3,906	$ 4,394	$ 4,672	$ 5,313	$ 3,960
	Number of retired members	3,567	193	690	818	1,178	2,207	2,571	11,224
2018	**Average annual benefit**	$ 24,614	$ 12,158	$ 11,697	$ 17,571	$ 24,667	$ 35,384	$ 47,920	$ 30,438
	Average monthly benefit	$ 2,051	$ 1,013	$ 975	$ 1,464	$ 2,056	$ 2,949	$ 3,993	$ 2,537
	Average monthly FAC	$ 2,536	$ 3,168	$ 3,679	$ 3,955	$ 4,439	$ 4,693	$ 5,318	$ 3,940
	Number of retired members	3,820	166	650	798	1,158	2,169	2,499	11,260
2017	**Average annual benefit**	$ 24,171	$ 12,650	$ 11,832	$ 17,481	$ 24,822	$ 35,679	$ 47,637	$ 29,861
	Average monthly benefit	$ 2,014	$ 1,054	$ 986	$ 1,457	$ 2,068	$ 2,973	$ 3,970	$ 2,488
	Average monthly FAC	$ 2,515	$ 3,177	$ 3,644	$ 3,904	$ 4,422	$ 4,682	$ 5,233	$ 3,826
	Number of retired members	4,149	151	600	768	1,095	2,062	2,253	11,078

ERS - Teachers

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ 43,328	$ 33,537	$ 17,528	$ 26,001	$ 43,263	$ 52,017	$ 55,623	$ 42,681
	Average monthly benefit	$ 3,611	$ 2,795	$ 1,461	$ 2,167	$ 3,605	$ 4,335	$ 4,635	$ 3,557
	Average monthly FAC	$ 3,964	$ 4,753	$ 6,365	$ 7,973	$ 7,851	$ 8,858	$ 20,527	$ 7,412
	Number of retired members	3,675	417	602	995	2,588	2,418	703	11,398
2020	**Average annual benefit**	$ 42,909	$ 33,844	$ 17,521	$ 26,187	$ 43,734	$ 52,410	$ 56,522	$ 42,708
	Average monthly benefit	$ 3,576	$ 2,820	$ 1,460	$ 2,182	$ 3,645	$ 4,368	$ 4,710	$ 3,559
	Average monthly FAC	$ 3,927	$ 4,663	$ 5,207	$ 5,651	$ 5,783	$ 6,056	$ 6,563	$ 5,156
	Number of retired members	3,898	417	579	950	2,520	2,334	576	11,274
2019	**Average annual benefit**	$ 42,786	$ 34,205	$ 17,506	$ 26,562	$ 44,296	$ 53,200	$ 57,557	$ 42,898
	Average monthly benefit	$ 3,566	$ 2,850	$ 1,459	$ 2,213	$ 3,691	$ 4,433	$ 4,796	$ 3,575
	Average monthly FAC	$ 3,896	$ 4,713	$ 5,323	$ 5,739	$ 5,781	$ 6,058	$ 6,563	$ 5,109
	Number of retired members	4,114	425	564	913	2,474	2,234	472	11,196
2018	**Average annual benefit**	$ 42,720	$ 34,676	$ 17,618	$ 26,683	$ 44,683	$ 53,536	$ 58,093	$ 43,085
	Average monthly benefit	$ 3,560	$ 2,890	$ 1,468	$ 2,224	$ 3,724	$ 4,461	$ 4,841	$ 3,590
	Average monthly FAC	$ 3,882	$ 4,799	$ 5,453	$ 5,838	$ 5,798	$ 6,111	$ 6,623	$ 5,112
	Number of retired members	4,309	426	552	898	2,463	2,216	456	11,320
2017	**Average annual benefit**	$ 42,307	$ 34,952	$ 17,827	$ 26,980	$ 45,153	$ 54,382	$ 58,761	$ 43,150
	Average monthly benefit	$ 3,526	$ 2,913	$ 1,486	$ 2,248	$ 3,763	$ 4,532	$ 4,897	$ 3,596
	Average monthly FAC	$ 3,866	$ 4,789	$ 5,412	$ 5,838	$ 5,821	$ 6,145	$ 6,574	$ 5,062
	Number of retired members	4,517	424	519	856	2,420	2,106	369	11,211

Teachers' Survivors Benefits Plan

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ 18,174							$ 18,174
	Number of retired members	599							599
2020	**Average annual benefit**	$ 18,066							$ 18,066
	Number of retired members	611							611

TABLE 5

Employees' Retirement System of Rhode Island
Schedule of Average Benefit Payments - Retirement

2019	**Average annual benefit**	$ 18,321	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,321
	Number of retired members	594	-	-	-	-	-	-	594
2018	**Average annual benefit**	$ 17,739	$ -	$ -	$ -	$ -	$ -	$ -	$ 17,739
	Number of retired members	567	-	-	-	-	-	-	567
2017	**Average annual benefit**	$ 18,333	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,333
	Number of retired members	573	-	-	-	-	-	-	573

Municipal Employees' Retirement System - General Employees

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ 22,903	$ 7,343	$ 8,445	$ 12,173	$ 16,490	$ 16,543	$ 31,626	$ 15,891
	Average monthly benefit	$ 1,909	$ 612	$ 704	$ 1,014	$ 1,374	$ 1,379	$ 2,636	$ 1,324
	Average monthly FAC	$ 2,098	$ 2,580	$ 2,507	$ 2,787	$ 2,950	$ 2,386	$ 3,719	$ 2,732
	Number of retired members	15	194	873	817	819	1,681	604	5,003
2020	**Average annual benefit**	$ 22,749	$ 7,679	$ 8,381	$ 12,169	$ 16,779	$ 16,061	$ 31,542	$ 15,690
	Average monthly benefit	$ 1,896	$ 640	$ 698	$ 1,014	$ 1,398	$ 1,338	$ 2,628	$ 1,308
	Average monthly FAC	$ 2,098	$ 2,570	$ 2,542	$ 2,796	$ 2,990	$ 2,318	$ 3,720	$ 2,704
	Number of retired members	15	183	858	758	752	1,757	557	4,880
2019	**Average annual benefit**	$ 22,634	$ 7,617	$ 8,468	$ 12,067	$ 16,938	$ 15,535	$ 31,687	$ 15,488
	Average monthly benefit	$ 1,886	$ 635	$ 706	$ 1,006	$ 1,412	$ 1,295	$ 2,641	$ 1,291
	Average monthly FAC	$ 2,236	$ 2,520	$ 2,601	$ 2,817	$ 3,003	$ 2,283	$ 3,766	$ 2,693
	Number of retired members	15	180	831	720	710	1,847	524	4,827
2018	**Average annual benefit**	$ 21,885	$ 7,797	$ 8,415	$ 12,049	$ 16,986	$ 15,054	$ 31,895	$ 15,248
	Average monthly benefit	$ 1,824	$ 650	$ 701	$ 1,004	$ 1,416	$ 1,255	$ 2,658	$ 1,271
	Average monthly FAC	$ 2,395	$ 2,556	$ 2,656	$ 2,854	$ 3,066	$ 2,238	$ 3,778	$ 2,686
	Number of retired members	14	174	802	694	660	1,900	488	4,732
2017	**Average annual benefit**	$ 21,762	$ 8,071	$ 8,445	$ 12,129	$ 17,339	$ 14,476	$ 31,638	$ 15,046
	Average monthly benefit	$ 1,813	$ 673	$ 704	$ 1,011	$ 1,445	$ 1,206	$ 2,636	$ 1,254
	Average monthly FAC	$ 2,308	$ 2,556	$ 2,644	$ 2,799	$ 3,062	$ 2,188	$ 3,816	$ 2,638
	Number of retired members	14	152	768	641	619	1,983	459	4,636

Municipal Employees' Retirement System - Police/Fire Employees

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ 20,355	$ 35,239	$ 35,048	$ 33,044	$ 32,760	$ 32,429	$ 48,181	$ 32,803
	Average monthly benefit	$ 1,696	$ 2,937	$ 2,921	$ 2,754	$ 2,730	$ 2,702	$ 4,015	$ 2,734
	Average monthly FAC	$ 336	$ 4,275	$ 4,504	$ 4,516	$ 4,491	$ 3,775	$ 5,122	$ 3,790
	Number of retired members	119	20	66	82	252	414	93	1,046
2020	**Average annual benefit**	$ 19,775	$ 35,107	$ 35,622	$ 32,930	$ 32,318	$ 31,982	$ 47,475	$ 32,253
	Average monthly benefit	$ 1,648	$ 2,926	$ 2,969	$ 2,744	$ 2,693	$ 2,665	$ 3,956	$ 2,688
	Average monthly FAC	$ 300	$ 4,275	$ 4,574	$ 4,484	$ 4,483	$ 3,764	$ 5,204	$ 3,775
	Number of retired members	116	20	63	80	249	407	80	1,015
2019	**Average annual benefit**	$ 35,530	$ 34,893	$ 35,915	$ 32,824	$ 32,336	$ 31,267	$ 46,931	$ 33,406
	Average monthly benefit	$ 2,961	$ 2,908	$ 2,993	$ 2,735	$ 2,695	$ 2,606	$ 3,911	$ 2,784
	Average monthly FAC	$ 3,823	$ 4,275	$ 4,647	$ 4,616	$ 4,484	$ 3,690	$ 5,083	$ 4,185
	Number of retired members	8	20	62	72	242	390	69	863
2018	**Average annual benefit**	$ 35,842	$ 34,795	$ 36,202	$ 31,855	$ 32,365	$ 30,622	$ 46,976	$ 32,913
	Average monthly benefit	$ 2,987	$ 2,900	$ 3,017	$ 2,655	$ 2,697	$ 2,552	$ 3,915	$ 2,743
	Average monthly FAC	$ 3,836	$ 4,275	$ 4,736	$ 4,530	$ 4,470	$ 3,639	$ 5,201	$ 4,156
	Number of retired members	7	20	57	66	241	375	58	824
2017	**Average annual benefit**	$ 35,752	$ 34,796	$ 35,663	$ 31,627	$ 32,398	$ 29,852	$ 45,583	$ 32,309
	Average monthly benefit	$ 2,979	$ 2,900	$ 2,972	$ 2,636	$ 2,700	$ 2,488	$ 3,799	$ 2,692
	Average monthly FAC	$ 3,836	$ 4,577	$ 4,802	$ 4,766	$ 4,919	$ 3,786	$ 5,216	$ 4,378
	Number of retired members	7	19	54	64	237	369	51	801

Employees' Retirement System of Rhode Island
Schedule of Average Benefit Payments - Retirement

State Police Retirement Benefits Trust

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ -	$ 43,840	$ 71,229	$ 45,357	$ 81,280	$ 86,530		$ 83,554
	Average monthly benefit	$ -	$ 3,653	$ 5,936	$ 3,780	$ 6,773	$ 7,211		$ 6,963
	Average monthly FAC	$ -	$ 4,084	$ 7,461	$ 7,198	$ 10,820	$ 11,382		$ 11,009
	Number of retired members	-	1	1	1	31	54		88
2020	**Average annual benefit**	$ -	$ 43,489	$ 70,878	$ 45,006	$ 80,407	$ 86,677	$ -	$ 83,101
	Average monthly benefit	$ -	$ 3,624	$ 5,907	$ 3,751	$ 6,701	$ 7,223	$ -	$ 6,925
	Average monthly FAC	$ -	$ 4,084	$ 7,461	$ 7,198	$ 10,620	$ 11,496	$ -	$ 10,975
	Number of retired members	-	1	1	1	29	47	-	79
2019	**Average annual benefit**	$ -	$ 43,489	$ 70,878	$ 45,006	$ 80,379	$ 87,831	$ -	$ 83,547
	Average monthly benefit	$ -	$ 3,624	$ 5,907	$ 3,751	$ 6,698	$ 7,319	$ -	$ 6,962
	Average monthly FAC	$ -	$ 4,084	$ 7,461	$ 7,198	$ 10,557	$ 11,609	$ -	$ 10,985
	Number of retired members	-	1	1	1	28	42	-	73
2018	**Average annual benefit**	$ -	$ 43,488	$ 70,884	$ 45,012	$ 80,358	$ 87,831	$ -	$ 83,544
	Average monthly benefit	$ -	$ 3,624	$ 5,907	$ 3,751	$ 6,696	$ 7,319	$ -	$ 6,962
	Average monthly FAC	$ -	$ 4,084	$ 7,461	$ 7,198	$ 10,557	$ 11,609	$ -	$ 10,985
	Number of retired members	-	1	1	1	28	42	-	73
2017	**Average annual benefit**	$ -	$ 43,489	$ 70,878	$ 45,006	$ 79,780	$ 87,820	$ -	$ 83,410
	Average monthly benefit	$ -	$ 3,624	$ 5,907	$ 3,751	$ 6,648	$ 7,318	$ -	$ 6,951
	Average monthly FAC	$ -	$ 4,084	$ 7,461	$ 7,198	$ 11,065	$ 11,609	$ -	$ 11,183
	Number of retired members	-	1	1	1	26	42	-	71

Judicial Retirement Benefits Trust

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ 130,631	$ 37,769	$ 108,288	$ 149,760	$ 162,916	$ 166,977		$ 141,752
	Average monthly benefit	$ 10,886	$ 3,147	$ 9,024	$ 12,480	$ 13,576	$ 13,915		$ 11,813
	Average monthly FAC	$ 11,147	$ -	$ 10,893	$ 8,474	$ 13,278	$ 10,336		$ 10,899
	Number of retired members	2	1	7	7	12	2		31
2020	**Average annual benefit**	$ 130,631	$ 64,348	$ 108,146	$ 154,791	$ 161,380	$ 166,831	$ -	$ 137,053
	Average monthly benefit	$ 10,886	$ 5,362	$ 9,012	$ 12,899	$ 13,448	$ 13,903	$ -	$ 11,421
	Average monthly FAC	$ 11,147	$ 7,587	$ 10,893	$ 9,344	$ 12,209	$ 10,336	$ -	$ 10,671
	Number of retired members	2	2	7	6	8	2	-	27
2019	**Average annual benefit**	$ 130,631	$ 64,348	$ 111,341	$ 168,129	$ 161,380	$ 166,831	$ -	$ 141,980
	Average monthly benefit	$ 10,886	$ 5,362	$ 9,278	$ 14,011	$ 13,448	$ 13,903	$ -	$ 11,832
	Average monthly FAC	$ 11,147	$ 7,587	$ 10,483	$ 12,308	$ 12,209	$ 10,336	$ -	$ 11,252
	Number of retired members	2	2	6	6	8	2	-	26
2018	**Average annual benefit**	$ 130,632	$ 64,344	$ 105,943	$ 154,860	$ 160,934	$ 165,384	$ -	$ 136,774
	Average monthly benefit	$ 10,886	$ 5,362	$ 8,829	$ 12,905	$ 13,411	$ 13,782	$ -	$ 11,398
	Average monthly FAC	$ 11,147	$ 7,587	$ 9,714	$ 12,263	$ 11,585	$ 10,336	$ -	$ 10,861
	Number of retired members	2	2	5	6	6	2	-	23
2017	**Average annual benefit**	$ 130,515	$ 64,348	$ 112,185	$ 149,212	$ 160,817	$ 186,050	$ -	$ 136,774
	Average monthly benefit	$ 10,876	$ 5,362	$ 9,349	$ 12,434	$ 13,401	$ 15,504	$ -	$ 11,398
	Average monthly FAC	$ 11,147	$ 13,058	$ 12,143	$ 14,086	$ 11,585	$ 20,672	$ -	$ 12,880
	Number of retired members	2	2	4	5	6	1	-	20

Employees' Retirement System of Rhode Island
Schedule of Average Benefit Payments - Retirement

Rhode Island Judicial Retirement Fund Trust

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ 199,654	$ -	$ -	$ -	$ -	$ -	$ -	$ 199,654
	Average monthly benefit	$ 16,638	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,638
	Average monthly FAC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	2	-	-	-	-	-	-	2
2020	**Average annual benefit**	$ 199,654	$ -	$ -	$ -	$ -	$ -	$ -	$ 199,654
	Average monthly benefit	$ 16,638	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,638
	Average monthly FAC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	2	-	-	-	-	-	-	2
2019	**Average annual benefit**	$ 199,508	$ -	$ -	$ -	$ -	$ -	$ -	$ 199,508
	Average monthly benefit	$ 16,626	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,626
	Average monthly FAC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	2	-	-	-	-	-	-	2
2018	**Average annual benefit**	$ 199,512	$ -	$ -	$ -	$ -	$ -	$ -	$ 199,512
	Average monthly benefit	$ 16,626	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,626
	Average monthly FAC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	2	-	-	-	-	-	-	2
2017	**Average annual benefit**	$ 199,508	$ -	$ -	$ -	$ -	$ -	$ -	$ 199,508
	Average monthly benefit	$ 16,626	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,626
	Average monthly FAC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	2	-	-	-	-	-	-	2

State Police Retirement Fund Trust

		0-5 Yrs.	5-10 Yrs.	10-15 Yrs.	15-20 Yrs.	20-25 Yrs.	25-30 Yrs.	>30 Yrs.	Total
2021	**Average annual benefit**	$ 65,356	$ -	$ -	$ -	$ -	$ -	$ -	$ 65,356
	Average monthly benefit	$ 5,446	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,446
	Average monthly FAC		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	243	-	-	-	-	-	-	243
2020	**Average annual benefit**	$ 64,486	$ -	$ -	$ -	$ -	$ -	$ -	$ 64,486
	Average monthly benefit	$ 5,374	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,374
	Average monthly FAC		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	257	-	-	-	-	-	-	257
2019	**Average annual benefit**	$ 64,444	$ -	$ -	$ -	$ -	$ -	$ -	$ 64,444
	Average monthly benefit	$ 5,370	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,370
	Average monthly FAC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	259	-	-	-	-	-	-	259
2018	**Average annual benefit**	$ 64,032	$ -	$ -	$ -	$ -	$ -	$ -	$ 64,032
	Average monthly benefit	$ 5,336	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,336
	Average monthly FAC		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	266	-	-	-	-	-	-	266
2017	**Average annual benefit**	$ 64,359	$ -	$ -	$ -	$ -	$ -	$ -	$ 64,359
	Average monthly benefit	$ 5,363	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,363
	Average monthly FAC	$ 4,034	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Number of retired members	269	-	-	-	-	-	-	269

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

Source: The most recent actuarial valuation for ERSRI is as of June 30, 2020. Data in this schedule prior to fiscal year ending June 30, 2017 was derived from actuarial valuations prepared by GRS and certified by the ERSRI Board in prior fiscal years.

FAC: Final Average Compenstation

TABLE 6

Employees' Retirement System of Rhode Island
Schedule of Top Ten Employers With Most Covered Employees
Current Fiscal Period and Fiscal Period Ended Nine Years Prior

2021			2012		
ERS - Teachers	Number of Covered Employees	Percentage of Total Covered Employees	ERS - Teachers	Number of Covered Employees	Percentage of Total Covered Employees
Providence School Department	1,859	14.76%	Providence School Department	1,747	13.30%
Cranston School Department	984	7.81%	Warwick School Department	1,016	7.73%
Warwick School Department	874	6.94%	Cranston School Department	987	7.51%
Pawtucket School Department	721	5.72%	Pawtucket School Department	723	5.50%
Woonsocket School Department	529	4.20%	Woonsocket School Department	527	4.01%
East Providence School Department	481	3.82%	East Providence School Department	497	3.78%
Coventry School Department	421	3.34%	Coventry School Department	465	3.54%
Cumberland School Department	405	3.22%	Cumberland School Department	398	3.03%
North Kingstown School Department	383	3.04%	North Kingstown School Department	381	2.90%
West Warwick School Department	353	2.80%	South Kingstown School Department	359	2.73%
Remaining employers	5,584	44.34%	Remaining employers	6,036	45.95%
	12,594	100.00%		13,136	100.00%

TSB	Number of Covered Employees	Percentage of Total Covered Employees	TSB	Number of Covered Employees	Percentage of Total Covered Employees
Cranston School Department	1,028	14.47%	Cranston School Department	1,015	15.16%
East Providence School Department	512	7.21%	East Providence School Department	543	8.11%
Coventry School Department	438	6.17%	Coventry School Department	489	7.30%
Cumberland School Department	421	5.93%	Cumberland School Department	412	6.15%
Johnston School Department	326	4.59%	Central Falls Collaborative	348	5.20%
Lincoln School Department	304	4.28%	Lincoln School Department	346	5.17%
Bristol Warren Regional School District	302	4.25%	Westerly School Department	331	4.94%
Barrington School Department	295	4.15%	Bristol Warren Regional School District	321	4.79%
Westerly School Department	287	4.04%	Barrington School Department	312	4.66%
Central Falls Collaborative	247	3.48%	Johnston School Department	311	4.64%
Remaining employers	2,943	41.43%	Remaining employers	2,268	33.87%
	7,103	100.00%		6,696	100.00%

TABLE 6

Employees' Retirement System of Rhode Island
Schedule of Top Ten Employers With Most Covered Employees
Current Fiscal Period and Fiscal Period Ended Nine Years Prior

2021			2012		
MERS - General Employees	**Number of Covered Employees**	**Percentage of Total Covered Employees**	**MERS - General Employees**	**Number of Covered Employees**	**Percentage of Total Covered Employees**
City of Cranston	583	10.08%	City of Cranston	697	11.59%
City of Pawtucket	493	8.52%	City of Pawtucket	515	8.57%
City of East Providence	402	6.95%	City of East Providence	384	6.39%
City of Woonsocket	357	6.17%	City of Woonsocket	337	5.61%
Town of North Kingstown	309	5.34%	Town North Kingstown	330	5.49%
Town of South Kingstown	280	4.84%	Town of South Kingstown	321	5.34%
City of Newport	279	4.82%	City of Newport	252	4.19%
Town of Cumberland	248	4.29%	Town of Johnston	245	4.08%
Town of North Providence	219	3.78%	Town of Cumberland	237	3.94%
Town of Johnston	197	3.40%	Town of North Providence	230	3.83%
Remaining employers	2,419	41.81%	Remaining employers	2,464	40.98%
	5,786	100.00%		6,012	100.00%

MERS - Police/Fire Employees	**Number of Covered Employees**	**Percentage of Total Covered Employees**	**MERS - Police/Fire Employees**	**Number of Covered Employees**	**Percentage of Total Covered Employees**
Cranston Fire Department	179	10.10%	Cranston Fire Department	143	10.14%
Cranston Police Department	140	7.90%	Cranston Police Department	126	8.94%
Woonsocket Fire Department	115	6.49%	Woonsocket Fire Department	111	7.87%
North Providence Fire Department	97	5.47%	Woonsocket Police Department	94	6.67%
Woonsocket Police Department	94	5.30%	North Providence Fire Department	91	6.45%
Middletown Police & Fire Departments	75	4.23%	North Kingstown Fire Department	60	4.26%
Johnston Fire Department	72	4.06%	Middletown Police & Fire Departments	50	3.55%
Central Falls Police & Fire Legacy	69	3.89%	Central Coventry Fire Department	48	3.40%
North Kingstown Fire Department	67	3.78%	South Kingstown Police Department	47	3.33%
South Kingstown Police Department	54	3.05%	Johnston Fire Department	46	3.26%
Remaining employers	811	45.74%	Remaining employers	594	42.13%
	1,773	100.00%		1,410	100.00%

Note: Data provided in this schedule is based upon the most recent actuarial valuations prepared as of June 30, 2021. Data in this schedule prior to fiscal year ending June 30, 2019 was derived from actuarial valuations prepared by GRS and certified by the ERSRI Board in prior fiscal years.