
State of Rhode Island
Employees' Retirement System

FISCAL YEAR ENDED JUNE 30, 2016

Dennis E. Hoyle, CPA
Auditor General

State of Rhode Island and Providence Plantations
General Assembly
Office of the Auditor General



Office of the Auditor General

State of Rhode Island and Providence Plantations - General Assembly
Dennis E. Hoyle, CPA - Auditor General

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January 31, 2017

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Senator M. Teresa Paiva Weed

Senator Dennis L. Algieri

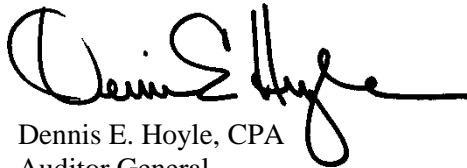
Representative K. Joseph Shekarchi

Representative Patricia L. Morgan

We have completed our audit of the financial statements of the Employees' Retirement System of the State of Rhode Island for the fiscal year ended June 30, 2016 in accordance with Section 36-8-19 of the Rhode Island General Laws.

Our report is contained herein as outlined in the Table of Contents.

Sincerely,



Dennis E. Hoyle, CPA
Auditor General

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

FISCAL YEAR ENDED JUNE 30, 2016

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INDEPENDENT AUDITOR'S REPORT

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

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

Report on the Financial Statements

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, 2016 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.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

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

Opinions

In our opinion, the financial statements of the plans referred to above present fairly, in all material respects, the financial position of the plans within the System as of June 30, 2016, and the changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

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, 2016 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 3, the System implemented GASB Statement No. 72 – *Fair Value Measurement and Application* during fiscal 2016.

The fair values of certain investments (hedge funds, private equity, real estate, and certain infrastructure investments) representing 29% 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.

As described in Note 3, certain investment expenses are customarily reported on a net of fees basis and consequently such amounts are not included with other investment expenses as they are not readily separable.

Our opinions are not modified with respect to these matters.

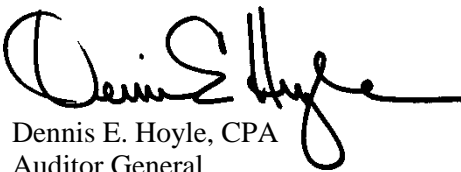
Other Matters - Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 4 through 9 and other required supplementary information as listed in the table of contents and pages 49 through 65 be presented to supplement the basic financial statements. Such information, 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.

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

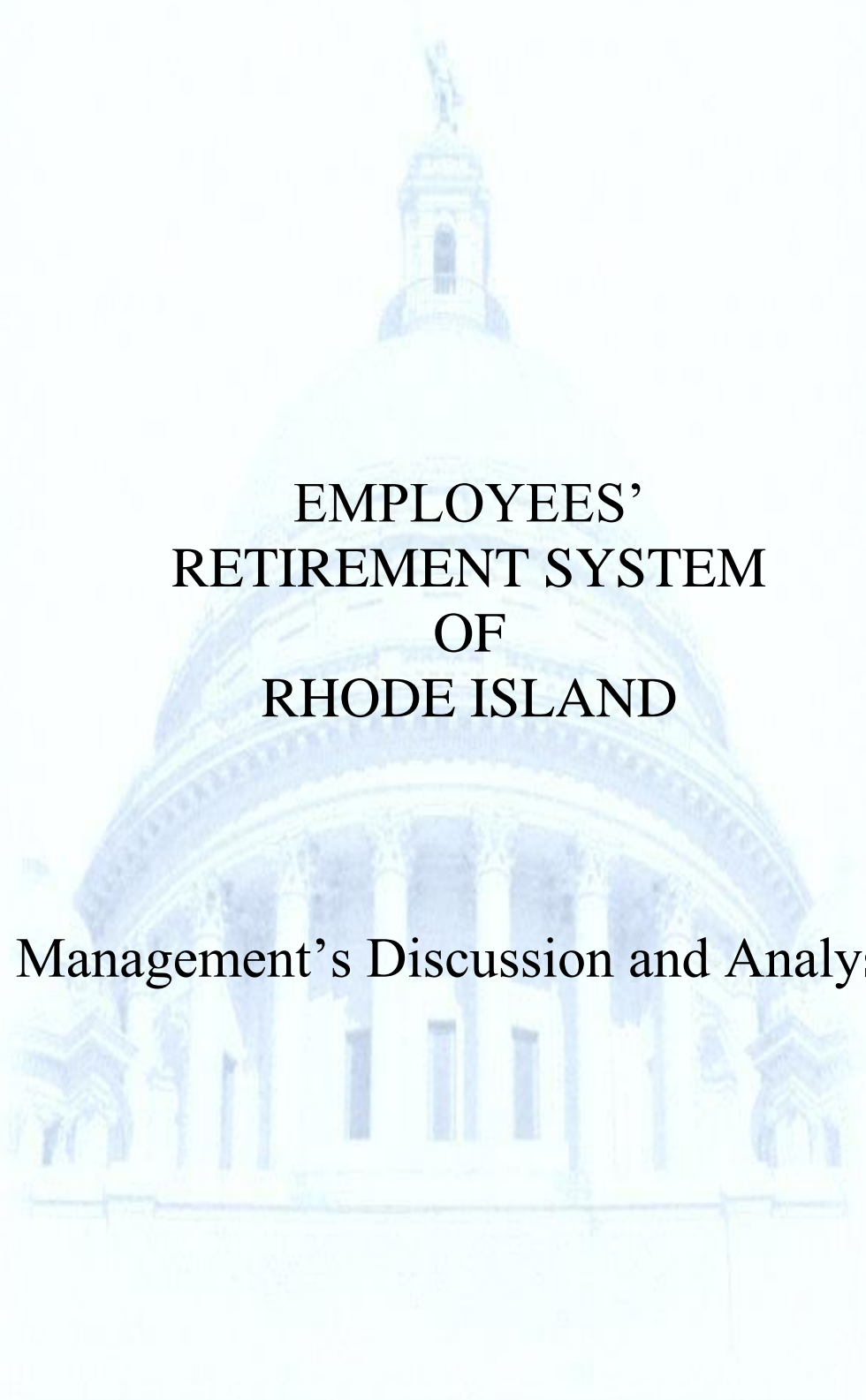
Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have issued a report dated January 20, 2017 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 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 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

January 20, 2017



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, 2016. 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 six defined benefit pension plans for state employees, teachers, teachers' survivors, state police, judges, and employees of participating municipalities. State employees and teachers are combined into one cost-sharing plan while teachers' survivors, state police, judges appointed after December 31, 1989, active judges appointed before January 1, 1990, and municipal employees each have separate plans. 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, 2016. 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, 2016

- The System's fiduciary net position decreased by \$301 million from \$8.4 billion at June 30, 2015 to \$8.1 billion at June 30, 2016.
- Total pension benefits paid to members from the defined benefit plans were \$932 million, an increase of \$28.4 million or 3.2% compared to the fiscal year ended June 30, 2015. Total benefits paid in 2016 included approximately \$23.3 million in one-time stipends and a benefit adjustment related to the settlement of litigation challenging the Rhode Island Retirement Security Act pension reform provisions.
- Contributions to all defined benefit plans from both employers and employees at June 30, 2016 were \$564.6 million, an increase of \$58 million or 11.4% compared to the fiscal year ended June 30, 2015.
- Total employee and employer contributions into the System's defined contribution plan were \$109.5 million at June 30, 2016, a decrease of \$20.2 million. As a result of amendments to the RI Retirement Security Act, active members with more than 20 years of service at July 1, 2012 no longer contributed to the defined contribution plan effective July 1, 2015.
- Total distributions paid to members from the defined contribution plan were \$9.2 million.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Management's Discussion and Analysis

- The net loss from investing activities within the defined benefit plans (Pooled Investment Trust) was \$8.3 million for the fiscal year ended June 30, 2016. Investment gains within the defined contribution plan totaled \$4.3 million.
- Various legal challenges to enacted pension reforms initiated in recent years were settled in 2015. To carry out the settlement, the Rhode Island General Assembly passed legislation amending the Rhode Island Retirement Security Act (RIRSA), which was enacted into law on June 30, 2015 and which became generally effective July 1, 2015 (New RIRSA). On July 8, 2015, the Court entered final judgment.

Assets, Liabilities and Fiduciary Net Position – All Plans (in millions)		
	June 30, 2016	June 30, 2015
Assets:		
Cash and cash equivalents	\$ 5.9	\$ 5.6
Investments	8,039.5	8,379.0
Contribution and other receivables	<u>95.0</u>	<u>56.5</u>
Total assets	<u>8,140.4</u>	<u>8,441.1</u>
Liabilities:		
Accounts payable	<u>5.4</u>	<u>5.4</u>
Total liabilities	<u>5.4</u>	<u>5.4</u>
Fiduciary Net Position:	<u>\$ 8,135.0</u>	<u>\$ 8,435.7</u>

Summary of Changes in Fiduciary Net Position – All Plans (in millions)		
	Year Ended June 30, 2016	Year Ended June 30, 2015
Additions:		
Contributions	\$ 660.7	\$ 636.6
Net investment gain (loss)	<u>(4.0)</u>	<u>199.7</u>
Total Additions	<u>656.7</u>	<u>836.3</u>
Deductions:		
Benefits and distributions	940.9	908.7
Refunds of contributions	8.0	10.2
Administrative expenses	<u>8.5</u>	<u>9.1</u>
Total Deductions	<u>957.4</u>	<u>928.0</u>
Decrease in Net Position:	(300.7)	(91.7)
Fiduciary Net Position:		
Beginning of year	<u>8,435.7</u>	<u>8,527.4</u>
End of year	<u>\$ 8,135.0</u>	<u>\$ 8,435.7</u>

Management's Discussion and Analysis

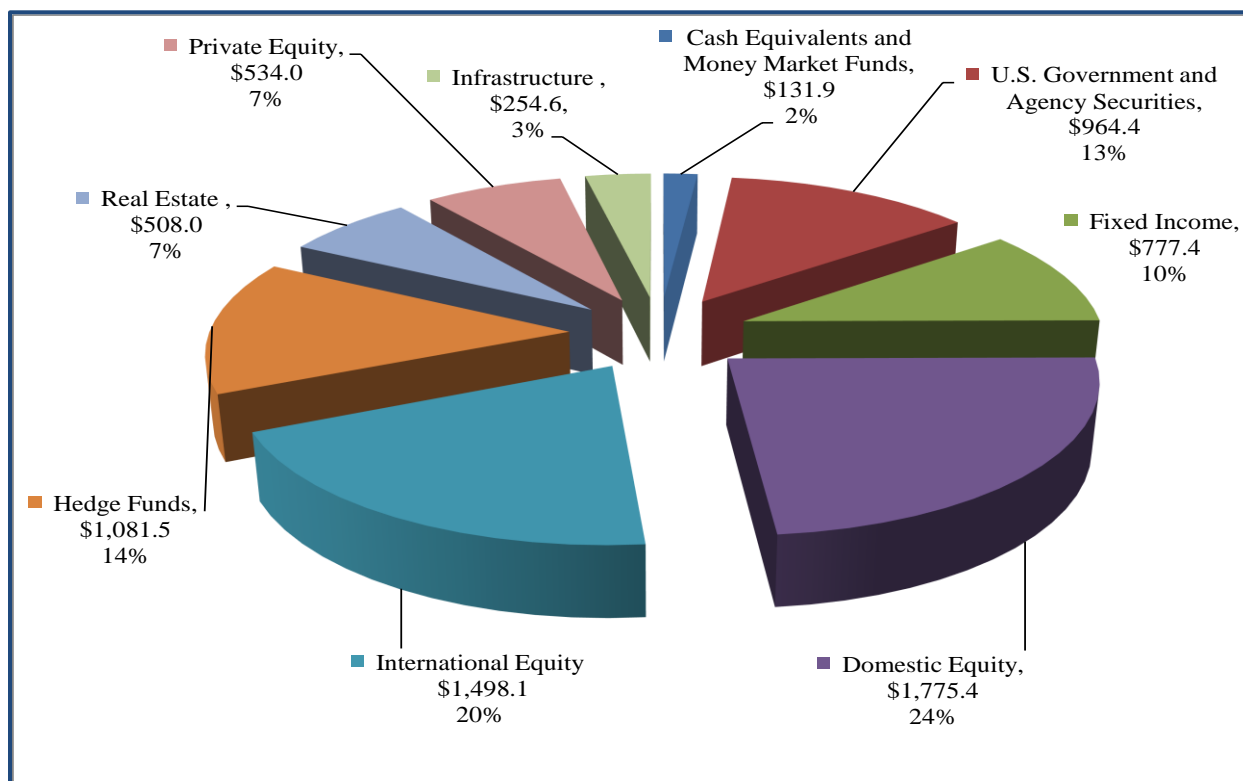
Investments

The State Investment Commission (SIC) establishes long-term asset allocation policy, selects managers, and monitors investment performance of the plan. An asset allocation study is conducted every two to four years to identify an optimal diversified investment portfolio that maximizes return within an acceptable level of risk. As long-term investors, the SIC stays 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 plan where distributions exceed contributions, the System has to 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. The allocation of assets among stocks, bonds, and alternative investments can have a significant impact on risk-adjusted investment performance.

In June 2016, a new asset allocation study was carried out. Based on the study, significant changes were made to the current investment strategy. The study reframed the asset allocation, moving away from traditional classifications of asset classes and towards a more function-based asset allocation. The new "Back to Basics" strategy is designed to improve investment performance, protect the fund in the event of a crisis, and save taxpayers millions compared to the current strategy. The changes were led by leading pension and investment experts in the United States. Among the highlights of the "Back to Basics" strategy is a significant reduction in the use of hedge funds. The hedge fund program will more than halve the existing program. The study proposed for a larger allocation to private equity and for a dedicated allocation towards "income-based" strategies.

Pooled Investment Trust – Asset Allocation - June 30, 2016
(in millions)



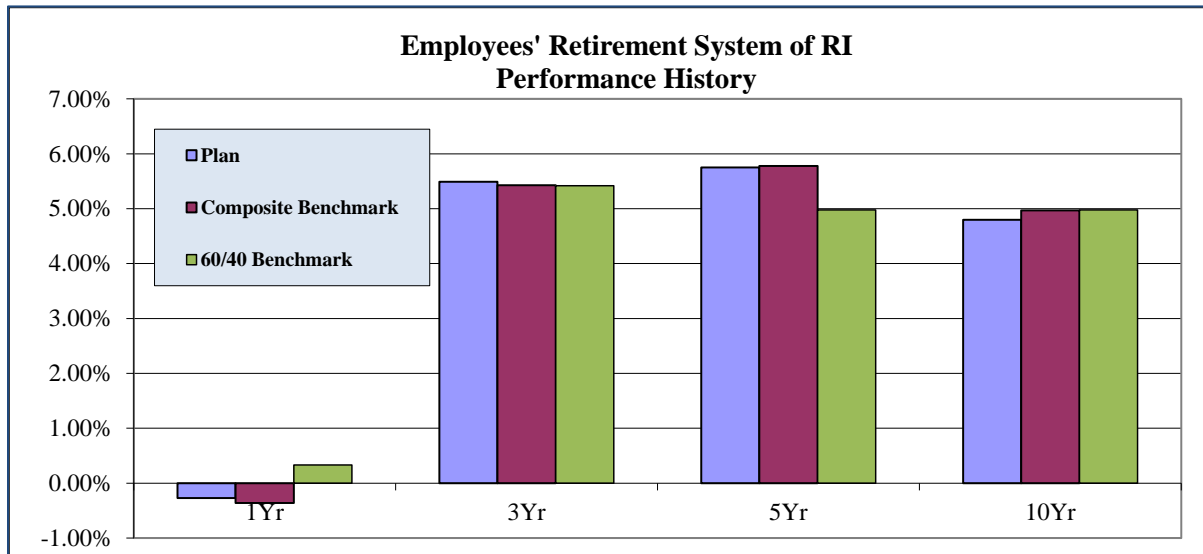
Management's Discussion and Analysis

Having adopted the asset class targets of the most recent allocation study, the State Investment Commission will tactically adjust these targets based on market conditions and opportunities, as well as any timing required for prudent implementation. The SIC engages external investment managers to manage portions of the portfolio, and performance is measured in relation to benchmarks adopted for each asset category. A composite benchmark, based on weighted asset allocations, is used to measure overall manager performance. Asset allocation performance is assessed by comparing returns to a basic allocation of 60% global equities/40% bonds. The SIC assesses assets and managers over suitably long time frames, and on the basis of expected future returns.

For the defined contribution plan, the SIC has selected a menu of investment options, which are made available to participants. The options include, but are not limited to, target-date retirement funds corresponding to an employee's anticipated retirement date. Approximately 91% of defined contribution plan assets are invested in target-date retirement funds.

Investment Performance

The System's one-year time-weighted rate of return was -0.27% which was slightly above the composite benchmark (-0.35%) but was below the 60/40 basic allocation's 0.33% return. The three-year average was 5.49%, which was 6bps above the 5.43% benchmark return and 7bps better than the 60/40 benchmark's 5.42% return. The five-year average was 5.75%, which was slightly below the 5.78% benchmark return by 3bps and was 77bps better than the 60/40 at 4.98%.



The composite benchmark is weighted based on asset allocation targets. It is currently comprised: **44.5%** MSCI All Country World Net Index; **15%** Barclays Aggregate; **7%** HFRI Fund of Funds Composite Index; **3%** Bank of America Merrill Lynch 3-month US Treasury Bill; **8.0%** HFRI Equity Hedge (Total) Index; **5.0%** NFI-ODCE Index; **4%** Barclays US Treasury Inflation Notes: 1-10 Year Index; World Government Inflation-Linked Notes: 1-10 Year Index; **5%** custom loan and high yield index – 30% Bank of America Merrill Lynch 1-3 Year BB-B High Yield, 35% JP Morgan BB/B Leveraged Loan Index and 35% Credit Suisse Institutional Leveraged Loan Index; **7%** Institutional Limited Partners Association All Funds Index; and **1.5%** Alerian Master Limited Partnerships Total Return Index.

The composite 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.

The 60% global equity/40% bonds benchmark is 60% MSCI All-Country World and 40% Barclays US Aggregate.

Management's Discussion and Analysis

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. As required by 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.

The System's actuarial investment return assumption, for funding purposes, is 7.5% for all plans except the Judicial Retirement Fund Trust which uses a 4.0% 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 2016 investment returns within the defined contribution plan ranged from -3.21% to 7.81% 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 Plans*, 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 primarily on actuarial valuations performed as of June 30, 2015, rolled-forward to June 30, 2016 using generally accepted actuarial principles from the valuation date to the plan's fiscal year end. The total pension liability for the TSB and RIJRFT plans are based on valuations performed as of June 30, 2014 rolled forward to the June 30, 2016 measurement date.

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, 2016 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 7.5%. The RIJRFT utilized the Municipal Bond Index rate of 2.85%. The calculation of the net pension liability (asset) was measured as of June 30, 2016.

The Teachers' Survivors Benefit plan was over-funded with a fiduciary net position equal to 137% of the plan's total pension liability at June 30, 2016. The fiduciary net position of the ERS plan covering state employees and teachers was equal to 51.9% and 54.1% respectively of the total pension liability measure for each of those employee groups. The fiduciary net position of the State Police and JRBT plans was equal to 92.6% and 90.2% respectively of the total pension liability measure for each of those employee groups. The fiduciary net position of the RIJRFT plan covering a small group of judges was equal to 2.5% of the total pension liability for that plan due to the recent formation of the plan and the State (employer) using a mostly pay-as-you-go funding approach. The fiduciary net position of the agent MERS plans covering general employees and police and fire personnel was equal to 78.8% and 75.8% respectively of the total pension liability measure for those employee groups.

Management's Discussion and Analysis

All employers participating in the System's plans contributed 100% of their annual actuarially determined contribution during fiscal 2016, except for the State not providing the full employer contribution for the Rhode Island Judicial Retirement Fund Trust.

Future Contribution Rates

The fiscal 2017 employer contribution rates are based upon the actuarial valuations performed for funding purposes at June 30, 2014. The employer contribution rates for fiscal 2017 are 25.34% for State employees, 23.13% for Teachers, 21.58% for Judges, and 12.66% for State Police. For the Rhode Island Judicial Retirement Fund Trust, the actuarially determined employer contribution is \$1,200,000 for fiscal 2017.

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 THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

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 six defined benefit retirement plans and one defined contribution plan as listed below:

<i>Plan Name</i>	<i>Type of Plan</i>
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
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 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.

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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

1. System Description and Governance (continued)

A summary of membership by plan follows:

	<i>Retirees and beneficiaries</i>	<i>Terminated plan members entitled to but not yet receiving benefits</i>	<i>Active Vested</i>	<i>Active Non-vested</i>	<i>Total by Plan</i>
<i>Actuarial valuation as of June 30, 2015</i>					
ERS					
State Employees	11,041	2,948	8,544	2,650	25,183
Teachers	10,902	3,185	11,166	2,106	27,359
MERS					
General Employees	4,440	2,719	4,503	1,366	13,028
Public Safety	728	163	1,132	344	2,367
SPRBT	39	25	55	182	301
JRBT	16	-	18	36	70
<i>Actuarial valuation as of June 30, 2014</i>					
TSB	537	3,673	7,139	-	11,349
RIJRFT	0	0	7	-	7
Total by type	27,704	12,713	32,563	6,684	79,664

The defined contribution plan at June 30, 2016 included 160 employers and 33,740 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 recently 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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

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 35 th 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 38 th year Effective July 1, 2012: 1.0% per year	75% of final average earnings (5 consecutive highest years)

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

2. Plan Membership and Benefit Provisions (continued)

Schedule		Retirement Eligibility	Benefit accrual rates	Maximum benefit
(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 the plans 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% (5 yr return – 5.5%, with a max of 4%) and 50% calculated using the percentage increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

This COLA is calculated on the first \$31,026 for all members and/or beneficiaries of members who retired on or before June 30, 2015. The COLA is calculated on the first \$25,855, effective January 1, 2016, for all other members/beneficiaries and indexed as of that date as well. The indexing formula is run annually regardless of funding level each year. The COLA will be delayed until the later of the Social Security Retirement Age or three years after retirement for all retirees other than those entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect. Once the plan achieves 80% funding the COLA limitation will be returned to the \$25,855, which will continue to be indexed annually.

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 24 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 \$9,600; 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.

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

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

2. Plan Membership and Benefit Provisions (continued)

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:

<u>Highest Annual Salary</u>	<u>Basic Monthly Spouse's or Domestic Partner's Benefit</u>
\$17,000 or less	\$ 750
\$17,001 to \$25,000	\$ 875
\$25,001 to \$33,000	\$ 1,000
\$33,001 to \$40,000	\$ 1,125
\$40,001 and over	\$ 1,250

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 no increase as of January 1, 2016.

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	68
Municipal police and fire departments	<u>45</u>
Total participating units as of the actuarial valuation at June 30, 2015	<u>113</u>

Plan vesting provisions – after five years of service.

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

2. Plan Membership and Benefit Provisions (continued)

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 that 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.

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 their date of retirement plus one month.

2. Plan Membership and Benefit Provisions (continued)

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% (5 yr return – 5.5%, with a max of 4%) and 50% calculated using the percentage increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%. This COLA is calculated on the first \$31,026 for all members and/or beneficiaries of members who retired on or before June 30, 2015.

This COLA is calculated on the first \$25,855, effective January 1, 2016, for all other members/beneficiaries and indexed as of that date as well. The indexing formula is run annually regardless of funding level each year. The COLA will be delayed until the later of the Social Security Retirement Age or three years after retirement for general employees and until the later of age 50 and three years after retirement for police and fire personnel, other than those entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect. Once the plan achieves 80% funding, the COLA limitation will be returned to the \$25,855, which will continue to be indexed annually.

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.

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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

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 the plans 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% (5 yr return – 5.5%, with a max of 4%) and 50% calculated using the percentage increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

This COLA is calculated on the first \$31,026 for all members and/or beneficiaries of members who retired on or before June 30, 2015. The COLA is calculated on the first \$25,855, effective January 1, 2016, for all other members/beneficiaries and indexed as of that date as well. The indexing formula is run annually regardless of funding level each year. The COLA will be delayed until the later of the Social Security Retirement Age or three years after retirement for all retirees other than those entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect. Once the plan achieves 80% funding the COLA limitation will be returned to the \$25,855, which will continue to be indexed annually.

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.

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
<p><i>After:</i> December 31, 1989 but before July 2, 1997</p>	<p>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.</p>
<p><i>After:</i> July 2, 1997 but before January 1, 2009</p>	<p>Same as above except, salary is the average highest three (3) consecutive years of compensation rather than final salary.</p>

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

2. Plan Membership and Benefit Provisions (continued)

Judges appointed	Retirement benefit
<p><i>After:</i> January 1, 2009 but before July 1, 2009</p>	<p>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.</p> <p>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.</p>
<p><i>After:</i> July 1, 2009</p>	<p>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.</p> <p>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.</p>

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

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 the plans 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% (5 yr return – 5.5%, with a max of 4%) and 50% calculated using the percentage increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

This COLA is calculated on the first \$31,026 for all members and/or beneficiaries of members who retired on or before June 30, 2015. The COLA is calculated on the first \$25,855, effective January 1, 2016, for all other members/beneficiaries and indexed as of that date as well. The indexing formula is run annually regardless of funding level each year. The COLA will be delayed until the later of the Social Security Retirement Age or three years after retirement for all retirees other than those entitled to receive a benefit adjustment as of June 30, 2012 under the law then in effect. Once the plan achieves 80% funding the COLA limitation will be returned to the \$25,855, which will continue to be indexed annually.

2. Plan Membership and Benefit Provisions (continued)

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 generally provides retirement benefits for members who have served as a justice of the supreme court, the superior court, the family court, the district court, or any of them for 20 years and has reached the age of 65 years, or has served 15 years, and reached the age of 70 years 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 of the traffic tribunal who served as a justice for 20 years, or has 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. However, any traffic tribunal judge who has served 20 years and has reached age 65 years, or has served for 15 years and reached age 70 years may retire from active service and receive a benefit equal to annual salary the justice was receiving at the time of their retirement.

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 the plans 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% (5 yr return – 5.5%, with a max of 4%) and 50% calculated using the percentage increase in the CPI-U from the prior September 30 (max of 3%) for a total maximum COLA of 3.5%.

This COLA is calculated on the first \$25,855, effective January 1, 2016, and indexed as of that date as well. The indexing formula is run annually regardless of funding level each year. The COLA will be delayed until the later of the Social Security Retirement Age or three years after retirement.

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

2. Plan Membership and Benefit Provisions (continued)

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.

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 and MERS general police and fire 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.

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. The fair value of mutual fund investments reflects the published closing net asset value as reported by the fund manager.

Commingled funds include institutional domestic equity index and international equity index funds. The fair value of these commingled 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.

Futures contracts 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, and infrastructure investments) are valued based on the reported Net Asset Value (NAV) by the fund manager or general partner. Publicly traded investments held by the 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 private equity and real estate limited partnership general partners 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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

3. Summary of Significant Accounting Policies (continued)

Hedge funds, private equity, real estate, and infrastructure investments represented 14.4%, 7.1%, 6.8%, and 3.4% respectively of the total reported fair value of all ERSRI investments at June 30, 2016.

Investment expenses – Certain investment management expenses are presented separately as a component of net investment income and include investment consultants, custodial fees, direct investment expenses allocated by managers, and allocated Office of the General Treasurer expenses associated with oversight of the portfolio. In some instances (hedge funds, private equity, real estate, infrastructure, and cash investments), investment related costs are not readily separable from investment income and consequently investment income is recorded net of related expenses.

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.

Property and Equipment – Property and equipment is allocated to each plan based on its proportionate share of net assets. The System's capitalization threshold is \$5,000. The System's Line of Business System and computer equipment are recorded at cost. Depreciation is provided on a straight-line basis over the estimated useful lives, ten and five years respectively. At June 30, 2016 these assets were fully depreciated. The systems have reached their economic life for reporting purposes (carrying value of \$0), but will remain in service until replaced by a new system during fiscal year 2016.

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 the new system development and operations contract, the vendor will supply and operate the system for the contract period. Consequently, no capital asset related to the new system will be recognized or depreciated. The amounts paid before the system becomes operational have been accounted for as prepaid assets items and will be amortized ratably over the remaining contract period once system operations commence.

Memorandum Total Columns - Total columns on the financial statements are captioned "memorandum only" to indicate that they 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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

3. Summary of Significant Accounting Policies (continued)

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.

New Accounting Pronouncement – The implementation of GASB Statement No. 72 – *Fair Value Measurement and Application* required the System to address certain accounting and financial reporting issues related to fair value measurements. The System modified its fair value estimation process for certain investments without readily determinable fair values and included required disclosures regarding the fair value hierarchy in its financial statements.

4. Cash Deposits and Cash Equivalents

At June 30, 2016, the carrying amounts of the plans' cash deposits are listed below:

<u>Cash Deposits</u>	<u>ERS/TSB</u>	<u>MERS</u>	<u>SPRBT</u>	<u>JRBT</u>	<u>RIRFT</u>	<u>Total</u>
Book Balance	\$ 4,658,965	\$ 1,149,280	\$ 56,275	\$ 61,448	\$ 4,167	\$ 5,930,135
Bank Balance	\$ 720,463	\$ 395,693	\$ 56,275	\$ 61,448	\$ 4,167	\$ 1,238,046

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. The primary difference between book and bank balances are deposits in transit.

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, 2016 (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.

The General Treasurer makes certain short-term investments on a daily basis. Rhode Island General Law Section 35-10-11 (b)(3) 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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

5. Investments – Pooled Investment Trust

(a). General

The custodian bank holds assets of the System in a Pooled 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 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 following was the SIC's adopted asset allocation policy targets as of June 30, 2016:

<u>Type of Investment</u>	<u>Policy Targets for Fiscal Year 2016</u>
Global Equity	38.0%
Equity Hedge Funds	8.0%
Private Equity	7.0%
Core Fixed Income	15.0%
Absolute Return Hedge Funds	7.0%
Infrastructure	3.0%
Real Estate	8.0%
Other Real Return Assets	11.0%
Cash, Overlay and Money Market	<u>3.0%</u>
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 Trust at the end of each month.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

5. Investments – Pooled Investment Trust (continued)

The following table presents the fair value of investments by type that are held within the Pooled Trust for the defined benefit plans at June 30, 2016:

Pooled Investment Trust	
<u>Investment Type</u>	<u>Fair Value</u>
Cash and Cash Equivalents	\$ 44,844,482
Money Market Mutual Funds	143,117,377
US Government Securities	641,615,793
US Government Agency Securities	322,825,428
Collateralized Mortgage Obligations	24,445,926
Corporate Bonds	430,488,730
Term Loans	322,446,100
Domestic Equity Securities	461,869,814
International Equity Securities	296,332,838
Commingled Funds - Domestic Equity	1,313,510,596
Commingled Funds - International Equity	1,201,749,507
Private Equity	533,979,638
Real Estate	507,980,153
Hedge Funds	1,081,506,322
Infrastructure Investments	254,615,449
Derivative Investments	18,220
Investments at Fair Value	\$ 7,581,346,371
Receivable for investments sold	55,385,442
Payable for investments purchased	(111,424,106)
Total	\$ 7,525,307,707

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

5. Investments – Pooled Investment Trust (continued)

(b) Fair value hierarchy

Investments and Derivative Instruments Measured at Fair Value

<u>Investments at Fair Value</u>	<u>June 30, 2016</u>	<u>Quoted Prices in Active Markets for Identical Assets (Level 1)</u>	<u>Significant Other Observable Inputs (Level 2)</u>	<u>Significant Unobservable Inputs (Level 3)</u>
Equity Securities				
Global Equity	\$ 758,202,650	\$ 758,131,568	\$	\$ 71,082
Infrastructure - publicly traded	171,210,851	171,210,851	-	-
	<u>\$ 929,413,501</u>	<u>\$ 929,342,419</u>	<u>\$ -</u>	<u>\$ 71,082</u>
Debt Securities				
US Government Securities	\$ 641,615,793	\$ 641,615,793	\$	\$
US Government Agency Securities	322,825,428	-	322,825,428	-
Corporate Bonds	430,488,730	-	430,488,730	-
Collateralized Mortgage Obligations	24,445,926	-	24,445,926	-
Term Loans	322,446,100	-	-	322,446,100
	<u>\$ 1,741,821,977</u>	<u>\$ 641,615,793</u>	<u>\$ 777,760,084</u>	<u>\$ 322,446,100</u>
Total investments by fair value level	<u>\$ 2,671,235,478</u>	<u>\$ 1,570,958,212</u>	<u>\$ 777,760,084</u>	<u>\$ 322,517,182</u>
Investments measured at the net asset value (NAV)				
Money Market Mutual Funds	\$ 143,117,377	-	-	-
Commingled Funds - Domestic Equity	1,313,510,596	-	-	-
Commingled Funds - International Equity	1,201,749,507	-	-	-
Hedge Funds	1,081,506,322	-	-	-
Private Equity	533,979,638	-	-	-
Real Estate	507,980,153	-	-	-
Infrastructure Investments	83,404,598	-	-	-
	<u>\$ 4,865,248,191</u>	<u>-</u>	<u>-</u>	<u>-</u>
Derivative investments				
Equity index futures	\$ 179,169	\$ 179,169	-	-
Other derivatives (net)	(160,949)	-	(160,949)	-
	<u>\$ 18,220</u>	<u>-</u>	<u>-</u>	<u>-</u>
Cash and cash equivalents	<u>\$ 44,844,482</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net investment payable	<u>\$ (56,038,664)</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Pooled Investment Trust	<u>\$ 7,525,307,707</u>	<u>-</u>	<u>-</u>	<u>-</u>

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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

5. Investments – Pooled Investment Trust (continued)

Investments measured at the net asset value (NAV)

	<u>Fair Value</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency (if currently eligible)</u>	<u>Redemption Notice Period</u>
Money Market Mutual Funds (1)	\$ 143,117,377	-	daily	none
Commingled Funds - Domestic Equity (2)	1,313,510,596	-	daily	none
Commingled Funds - International Equity (2)	1,201,749,507	-	bi-monthly	none
Hedge Funds (3)	1,081,506,322	-	see note	see note
Private Equity (4)	533,979,638	379,661,563	see note	see note
Real Estate (5)	507,980,153	93,730,995	see note	see note
Infrastructure Investments (6)	83,404,598	64,974,657	see note	see note
	<u>\$ 4,865,248,191</u>	<u>\$ 538,367,215</u>		

- (1) **Money market mutual 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 money market funds reflects 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 typed investments are generally carried at amortized cost which approximates fair value. There are no withdrawal limitations for the money market mutual funds.
- (2) **Commingled funds** – consist of one domestic and three international equity index funds which are intended to replicate the performance of a specific index; e.g., Russell 3000. 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 only be redeemed at scheduled intervals twice per month. There are no withdrawal limitations for the domestic equity index fund.
- (3) **Hedge funds** – this portfolio is comprised of 17 limited partnerships divided into two sub-categories: hedged equity and absolute return. Hedged 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, 2016. Of the underlying holdings within the hedge funds approximately 74% were valued based on Tier 1 inputs (unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted 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. At June 30, 2016, investments totaling \$102,040,478 are subject to these withdrawal limitation provisions. In addition, assets totaling \$300,157 are held in Indus Asia Pacific Distribution Holding Company II, Ltd., a vehicle managing the liquidation of investments held in private securities. Cash will be distributed as investments are sold. The

5. Investments – Pooled Investment Trust (continued)

remainder of hedge fund assets is available for redemption on a month-end, quarter-end, semi-annual or annual basis, and is subject to notice periods which vary by fund and range from 2 days to 150 days.

- (4) **Private equity** – these 80 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, 2016.

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 14 limited partnerships 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, 2016.

With the exception of five core open-end funds which allow for quarterly redemptions, 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 three 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, 2016.

With the exception of one open-end core fund which allows for quarterly liquidity, 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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

5. Investments – Pooled Investment Trust (continued)

(c) Rate of Return

For the year ended June 30, 2016, 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
Money-weighted rate of return – year ended June 30, 2016	-0.78%	-0.15%	-0.57%	-0.07%	-0.03%	-1.72%

(d) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Duration is a measure of a debt security's sensitivity to fair value changes arising from changes in the level of interest rates. It is the weighted average maturity of a bond's cash flows. The System manages its exposure to interest rate risk by comparing each fixed income manager portfolio's effective duration against a predetermined benchmark index based on that manager's mandate. The fixed income indices currently used by the System are:

- Barclays US Aggregate Index
- Barclays US Treasury Inflation Notes - 1-10 Year Index
- Custom loan and high yield index – 30% Bank of America Merrill Lynch 1-3 Year BB-B High Yield, 35% JP Morgan BB/B Leveraged Loan Index and 35% Credit Suisse Institutional Leveraged Loan Index

At June 30, 2016, no fixed income manager was outside of the policy guidelines.

The following table shows the System's fixed income investments by type, fair value and the effective duration at June 30, 2016:

<u>Investment Type:</u>	<u>Fair Value</u> (in thousands)	<u>Effective</u> <u>Duration</u>
US Government Securities	\$ 641,616	5.14
US Government Agency Securities	322,825	2.29
Collateralized Mortgage Obligations	24,446	0.42
Corporate Bonds	430,489	6.48
Term Loans	<u>322,446</u>	0.52
Total Fixed Income	<u>\$ 1,741,822</u>	4.41

5. Investments – Pooled Investment Trust (continued)

The System had investments at June 30, 2016 totaling \$143 million in money market mutual fund investments including \$5 million in the Ocean State Investment Pool Trust (OSIP), an investment pool established by the State General Treasurer.

OSIP has met the criteria outlined in GASB Statement No. 79 – *Certain External Investment Pools and Pool Participants* to permit election to report its investments at amortized cost which approximates fair value. The OSIP is not rated and the weighted average maturity of investments held in the pool, by policy, is not to exceed 60 days. OSIP transacts with its participants at a stable net asset value (NAV) per share. Investments reported at the NAV are not subject to the leveling categorization as described above. There are no participant withdrawal limitations. The OSIP is not rated and the weighted average maturity of investments held in the pool, by policy, is not to exceed 60 days. OSIP issues a publicly available financial report that can be obtained by writing to the Office of the General Treasurer, Finance Department, 50 Service Avenue - 2nd Floor, Warwick, RI 02886.

The System's remaining money market mutual fund investments consisted of a short-term money market mutual fund that held investments with a weighted average maturity of 83 days at June 30, 2016.

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

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. The System's exposure to credit risk as of June 30, 2016 is as follows:

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

5. Investments – Pooled Investment Trust (continued)

	Collateralized Mortgage Obligations	US Government Agency Securities	Corporate Bonds	Term Loans
Rating				
Aaa	\$ 11,116,919	\$ 322,825,428	\$ 16,079,858	\$ 5,571,545
Aa	2,374,889		19,820,997	1,082,991
A	9,360,663		66,704,759	1,910,061
Baa	1,593,455		234,920,861	25,975,026
Ba			50,883,720	106,183,448
B			23,856,449	147,562,010
Caa			16,206,152	6,075,125
Ca			51,500	348,343
C			5,600	
D				500,718
Not Rated			1,958,834	27,236,833
Fair Value	<u>\$ 24,445,926</u>	<u>\$ 322,825,428</u>	<u>\$ 430,488,730</u>	<u>\$ 322,446,100</u>

Ratings provided by Moody's Investors Service

(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, 2016, 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, 2016, was as follows:

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

5. Investments – Pooled Investment Trust (continued)

Foreign Currency	Commingled					Total
	Fund	Equities	Private Equity	Derivatives		
Australian Dollar	\$ 56,041,630	\$ 21,197,654	\$	\$ 13,012	\$	77,252,296
Brazilian Real	20,490,314					20,490,314
Canadian Dollar	100,290,780	28,337,986	4,085,749	16,530		132,731,045
Chilean Peso	3,755,408					3,755,408
Colombian Peso	1,482,396					1,482,396
Czech Republic Koruna	542,461			214,218		756,679
Danish Krone	15,197,279	8,238,911				23,436,190
Egyptian Pound	688,647					688,647
Euro Currency	230,239,265	83,048,433	64,101,796			377,389,494
Great Britain Pound	152,251,264	47,283,955		567,104		200,102,324
Hong Kong Dollar	90,403,594	9,001,173				99,404,768
Hungarian Forint	853,406					853,406
Indian Rupee	25,941,488					25,941,488
Indonesia Rupiah	9,011,465					9,011,465
Israeli Shekel	4,654,902	1,897,214				6,552,116
Japanese Yen	184,912,250	59,197,615		(756,223)		243,353,642
Malaysian Ringgit	9,288,105					9,288,105
Mexican Peso	13,019,015					13,019,015
New Taiwan Dollar	37,653,359					37,653,359
New Zealand Dollar	1,482,782	517,547				2,000,329
Norwegian Krone	5,005,135	1,497,505				6,502,640
Peruvian Nouveau Sol	5					5
Philippine Peso	4,940,302					4,940,302
Polish Zloty	3,594,758					3,594,758
Qatari Riyal	2,850,875					2,850,875
Russian Ruble	3,122,151					3,122,151
Singapore Dollar	11,220,325	4,275,511				15,495,835
South African Rand	23,288,651					23,288,651
South Korean Won	46,020,881					46,020,881
Swedish Krona	21,553,985	7,990,987		38,236		29,583,208
Swiss Franc	69,644,939	23,848,346				93,493,285
Thailand Baht	6,776,479					6,776,479
Turkish Lira	4,382,524					4,382,524
United Arab Emirates Dirham	2,569,613					2,569,613
Total	\$ 1,163,170,436	\$296,332,838	\$ 68,187,545	\$ 92,876	\$	\$ 1,527,783,694
United States Dollar	38,579,071					
Grand Total	\$ 1,201,749,507					

In addition to the foreign currency exposure highlighted in the foregoing table, certain hedge and private equity fund investments may have foreign currency exposure.

(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.

5. Investments – Pooled Investment Trust (continued)

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.

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

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(b) *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, 2016.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

5. Investments – Pooled Investment Trust (continued)

Investment Derivative Instruments	Change in fair value included in investment income	Fair Value at June 30, 2016	Notional Amount
Fixed income futures - long	\$ 38,597		\$
Fixed income futures - short			
Equity index futures - long	320,055	179,169	81,775,319
Equity index futures - short	(1,035,370)		
Credit default swaps	20,918	101,284	2,074,000
Interest rate swaps	53,765	(262,233)	(4,093,400)
Total	\$ (602,035)	\$ 18,220	
Foreign currency forward contracts:			
Pending Payable (liability)		\$ (1,072,732)	
Pending Receivable (asset)		505,171	
		<u>\$ (567,561)</u>	

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, 2016 was \$505,171. 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.

Credit Default Swaps can be used in the portfolio by the credit manager 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. buy protection).

Interest rate swaps can be used to manage interest rate risk and increase returns in the fixed income or term loan portion of the portfolio.

The System executes (through its investment managers) derivative instruments with various counterparties. The credit ratings of these counterparties were Baa2 (Moody's) or better, one counterparty was not rated by Moody's but is rated A+ by Standard and Poor's.

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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

6. Other Investments – Defined Contribution Plan (continued)

Investment Type	Fair Value	% of Total	Duration (years)
Annuities			
TIAA Stable Value	\$ 7,189,923	1.40%	
TIAA Real Estate - variable annuity	3,803,445	0.74%	
Total	\$ 10,993,367	2.14%	
Fixed Income Funds			
Pimco Real Return Institutional Class	3,918,474	0.76%	7.97
Vanguard Total Bond Market Index Admiral	3,708,324	0.72%	5.77
Total	\$ 7,626,798	1.48%	
Target Retirement Funds			
Vanguard Target Retirement 2010 Trust II	7,858,691	1.53%	
Vanguard Target Retirement 2015 Trust II	34,032,960	6.62%	
Vanguard Target Retirement 2020 Trust II	66,538,194	12.94%	
Vanguard Target Retirement 2025 Trust II	73,938,393	14.38%	
Vanguard Target Retirement 2030 Trust II	75,397,942	14.66%	
Vanguard Target Retirement 2035 Trust II	74,456,359	14.48%	
Vanguard Target Retirement 2040 Trust II	58,554,431	11.39%	
Vanguard Target Retirement 2045 Trust II	43,225,134	8.41%	
Vanguard Target Retirement 2050 Trust II	24,058,819	4.68%	
Vanguard Target Retirement 2055 Trust II	7,131,087	1.39%	
Vanguard Target Retirement 2060 Trust II	521,522	0.10%	
Vanguard Target Retirement Income Trust II	2,378,586	0.46%	
Total	\$ 468,092,117	91.02%	
Equity Mutual Funds			
TIAA-CREF International Equity Index Fund Institutional	2,707,358	0.53%	
TIAA-CREF Social Ch Equity Institutional	518,956	0.10%	
Vanguard Institutional Index Fund	12,319,595	2.40%	
Vanguard Emerging Markets Stock Index Fund Admiral	2,145,984	0.42%	
Vanguard Mid-Cap Index Fund Admiral	5,276,852	1.03%	
Vanguard Small Cap Index Fund Admiral	4,565,134	0.89%	
Total	\$ 27,533,878	5.35%	
Total	\$ 514,246,160	100.00%	

The majority (98%) of investments held by participants in the defined contribution plan are target date retirement funds and equity index or fixed income mutual 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 mutual funds replicate the price and yield performance of a particular index.

The target retirement date and equity and fixed income mutual funds are priced daily based on the traded prices of the underlying securities held within the funds. There are no withdrawal limitations for these mutual 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.

6. Other Investments – Defined Contribution Plan (continued)

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, 2016, all assets and securities were registered in the name of TIAA-CREF as the Defined Contribution Plan's record keeper for the benefit of plan members and were held in the possession of TIAA-CREF's custodian, J.P. Morgan Bank.

The majority of the defined contribution plan investment options are mutual 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 mutual funds and variable annuity accounts are subject to interest rate, inflation and credit risks. Target-date retirement mutual 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. Mutual 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 RIJRF plan, employers are required to contribute at an actuarially determined rate 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, Section 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 7.5 percent for all plans except the RIJRF which utilizes a 4.0% 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.

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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

7. Contributions (continued)

(b). Contribution rates

Employer contribution rates for fiscal 2016 for all defined benefit plans were developed based on actuarial valuations performed as of June 30, 2013. 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.

The table below displays the defined benefit plan contribution rates for the year ended June 30, 2016:

Plan	Employee	Employer
ERS		
State Employees	3.75% Members with more than 20 yrs of service at July 1, 2012 – 11%	23.64%
Teachers		
<i>LEA funded</i>	3.75% Members with more than 20 yrs of service at July 1, 2012 – 11%	13.73% (13.08% for towns not participating in the 1990 early retirement incentive)
<i>State funded</i>		9.41% (8.98% for towns not participating in the 1990 early retirement incentive)
TSB	1% of the member's annual salary up to but not exceeding \$9,600	1% of the member's annual salary up to but not exceeding \$9,600
MERS		
General Employees	1.00% (additional 1% with a cost-of-living adjustment)	68 Municipalities, housing authorities, water and sewer districts contributed various actuarially determined rates.
Public Safety	7.00% (additional 1% with a cost-of-living adjustment)	45 Municipal police and fire departments contributed various actuarially determined rates.
SPRBT	8.75%	17.22%
JRBT	12.00% (8.75% supreme court judges)	26.80%
RIJRFT	12.00% (8.75% supreme court judges)	\$1,200,000 (note 1)
Note 1 - The State of Rhode Island is not currently funding this plan on an advance funding basis – full actually determined employer contributions have not been made to the plan.		

The table below displays the defined contribution plan contribution rates for the year ended June 30, 2016:

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%

7. Contributions (continued)

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 Nonemployer Contributing Entity

Within the ERS plan, the State of Rhode Island, as a nonemployer contributing entity, makes a contribution for teachers employed by local educational agencies. This is a 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 2016, 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 \$408,209 was paid to the System pursuant to Section 42-149-3.1 of the General Laws.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

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, 2016 were as follows:

Plan	Total pension liability	Plan fiduciary net position	Employers' net pension liability (asset)	Plan fiduciary net position as a % of the total pension liability
ERS				
State employees	\$ 4,410,709,110	\$ 2,288,446,139	\$ 2,122,262,971	51.9%
Teachers	6,494,164,064	3,510,586,538	2,983,577,526	54.1%
TSB	209,118,520	286,485,057	(77,366,537)	137.0%
State Police	125,557,246	116,316,582	9,240,664	92.6%
JRBT	66,951,367	60,418,485	6,532,882	90.2%
RIJRFT	21,631,112	533,525	21,097,587	2.5%
MERS				
General employees	1,143,357,181	901,383,814	241,973,367	78.8%
Police and fire	601,947,331	456,492,511	145,454,820	75.8%

a. Actuarial assumptions

The total pension liability for the ERS, MERS, State Police and JRBT plans was determined by actuarial valuations performed as of June 30, 2015 and rolled forward to June 30, 2016, using the following actuarial assumptions, applied to all periods included in the measurement.

The total pension liability for the TSB and RIJRFT plans was based on valuations performed as of June 30, 2014 rolled forward to the June 30, 2016 measurement date.

The actuarial assumptions used in the June 30, 2015 and June 30, 2014 valuations and the calculation of the total pension liability at June 30, 2016 were consistent with the results of an actuarial experience study performed as of June 30, 2013.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

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

Summary of Actuarial Assumptions Used in the June 30, 2016 measurement date valuations to determine the Net Pension Liability							
	ERS		MERS	SPRBT	JRBT	RIJRFT	TSB
	State Employees	Teachers					
Valuation Date	June 30, 2015 valuation rolled forward to June 30, 2016 measurement date					June 30, 2014 valuations	
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
Amortization Period for gains and losses	20 years						
Actuarial Assumptions							
Investment Rate of Return	7.50%	7.50%	7.50%	7.50%	7.50%	2.85%	7.50%
Projected Salary Increases	3.50% to 6.50%	3.50% to 13.5%	<u>General Employees</u> 3.50% to 7.50% <u>Police & Fire Employees</u> 4.00% to 14.00%	3.75% to 11.75%	3.50%	3.50%	3.50% to 13.50%
Mortality	<ul style="list-style-type: none"> Male Employees, MERS General and MERS P&F: 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected with Scale AA from 2000. Female Employees, MERS General and MERS P&F: 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected with Scale AA from 2000. 					Mortality the same as for teachers	
		Male and female teachers: 97% and 92%, respectively of rates in a GRS table based on male and female teacher experience, projected with Scale AA from 2000.					
Inflation	2.75%						

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

8. Net Pension Liability (Asset) of the Participating Employers (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 can be reviewed in a four-year interval. When the collective funding level of the plans 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% (5 yr return – 5.5%, with a max of 4%) and 50% calculated using a previous year's CPI-U (max of 3%) for a total maximum COLA of 3.5%. This COLA is calculated on the first \$25,855, effective January 1, 2016, and indexed as of that date as well. The indexing formula is run annually regardless of funding level each year. The COLA will be delayed until the later of the Social Security Retirement Age or three years after retirement.

For the MERS plan, a 2% COLA is assumed after January 1, 2014. For all other plans, a COLA of 2% is assumed only every four years until the plans achieve an 80% collective funded status in accordance with the law. For the TSB plan, a 2.75% COLA is assumed.

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 35 sources. The June 30, 2016 expected arithmetic returns over the long-term (20 years) by asset class are summarized in the following table:

<u>Type of Investment</u>	<u>Long-term expected real rate of return</u>
Global Equity:	
U.S. Equity	6.98%
International Developed	7.26%
International Emerging Markets	9.57%
Equity Hedge Funds	4.10%
Private Equity	10.15%
Core Fixed Income	2.37%
Absolute Return Hedge Funds	4.10%
Infrastructure	5.58%
Real Estate	5.33%
Other Real Return Assets:	
Master Limited Partnerships	4.97%
Credit	4.97%
Inflation Linked Bonds	1.76%
Cash, Overlay and Money Market	0.82%

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.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

Notes to the Financial Statements - Fiscal Year Ended June 30, 2016

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 7.5 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 the 20-year Bond Buyer GO Index, (2.85% and 4.29% at June 30, 2016 and June 30, 2015, respectively) 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 7.5 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 2.85% at June 30, 2016 was used in the determination of the net pension liability for that plan with a similar +1/-1% sensitivity analysis.

	1.00% Decrease (6.50%)	Current Discount Rate (7.5%)	1.00% Increase (8.50%)
ERS - State employees	\$ 2,598,795,821	\$ 2,122,262,971	\$ 1,732,145,629
ERS - Teachers	\$ 3,684,457,175	\$ 2,983,577,526	\$ 2,409,802,443
TSB	\$ (55,612,638)	\$ (77,366,537)	\$ (95,169,057)
SPRBT	\$ 22,274,893	\$ 9,240,664	\$ (1,425,705)
JRBT	\$ 13,495,323	\$ 6,532,882	\$ 835,192
MERS - General Employees	\$ 363,727,901	\$ 241,973,367	\$ 142,312,004
MERS - Police and Fire	\$ 208,282,267	\$ 145,454,820	\$ 94,038,066
	1.00% Decrease (1.85%)	Municipal Bond Index Discount Rate (2.85%)	1.00% Increase (3.85%)
RIJRFT	\$ 23,271,117	\$ 21,097,587	\$ 19,319,057

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 of the System, financed as described in the preceding paragraph, include \$1,067,694 of expenses within the Office of General Treasurer 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 2016, 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, 2016 were \$1,160,872. From these participant fees, \$148,681 was transferred to the State of Rhode Island to fund the fiscal 2016 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, 2016 totaled \$538 million. 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. At June 30, 2016, investments totaling approximately \$102 million are subject to these withdrawal limitation provisions. The remainder of hedge fund assets are available for redemption either on a month end or quarter end basis, and are subject to notice periods which vary by fund and range from 2 days to 90 days.

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 2022. Total payments over the contract period are estimated at \$22 million.

11. Postemployment Healthcare Plan

Plan Description - The System contributes to the State Employees' 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). The State of Rhode Island OPEB Board (Board) was authorized, created and established under Chapter 36-12.1 of the RI General Laws. The Board was established to independently hold and administer, in trust, the funds of the OPEB system. The plan provides medical benefits to certain retired employees of participating employers included in the System.

11. Postemployment Healthcare Plan (continued)

Pursuant to legislation enacted by the General Assembly, a trust was established to accumulate assets and pay benefits and other costs associated with the OPEB system.

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

Funding Policy - RIGL Sections 36-12.1, 36-12.2.2, and 36-12-4 govern the provisions of the OPEB system. The contribution requirements of plan members, the State, and other participating employers are established and may be amended by the General Assembly. Active employees make no contribution to the OPEB plan. Employees who retired after October 1, 2008 must contribute 20% of the annual estimated benefit cost (working rate) or annual premium for Medicare supplemental coverage. Employees retiring before October 1, 2008 have varying co-pay percentages ranging from 0% to 50% based on age and years of service at retirement. Further information about the contributions of plan members can be found in the financial report of the OPEB system.

All participating employers are required by law to fund the actuarially determined annual required contribution (ARC), which for fiscal year 2015 was 6.75% of covered payroll. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The System's contribution to the plan for the years ended June 30, 2016, 2015 and 2014 were \$186,988, \$205,392 and \$238,280 respectively, which represents 100% of the annual required contributions.

12. Contingencies

Challenges to Pension Reforms

Various legal challenges to enacted pension reforms initiated in recent years were settled in 2015. To carry out the settlement, the Rhode Island General Assembly passed legislation amending the Rhode Island Retirement Security Act (RIRSA), which had been enacted into law in 2011. This legislation was enacted into law on June 30, 2015 and became generally effective July 1, 2015 (New RIRSA). On July 8, 2015, the Court entered final judgment.

Eight appeals were filed with respect to the final judgement entered in Rhode Island Public Employees' Retiree Coalition v. Raimondo, and one appeal was filed with respect to the judgement in Clifford v. Chafee. Three of the nine appeals were dismissed by the Supreme Court. The State intends to vigorously defend the remaining six appeals. The appeals in the case do not affect the implementation of New RIRSA.

A lawsuit commenced by the Rhode Island Troopers Association challenging the constitutionality of the RIRSA (prior to the amendments) remains outstanding. The benefits at issue are those to be paid from the State Police Retirement Benefits Trust. There is no trial date set.

On March 16, 2016, the plaintiffs in Cranston Firefighters, IAFF Local 1363, AFL-CIO v. Chafee and International Brotherhood of Police Officers, Local 301, AFL-CIO v. Chafee filed a new suit in the United States District Court for the District of Rhode Island captioned Cranston Firefighters, IAFF Local 1363 AFL-CIO v. Raimondo. Through that action, the plaintiffs challenge the constitutionality of RIRSA and New RIRSA, not under the Rhode Island Constitution, as they had alleged in the Superior Court, but under the United States Constitution. Plaintiffs additionally seek a declaration concerning the

12. Contingencies (continued)

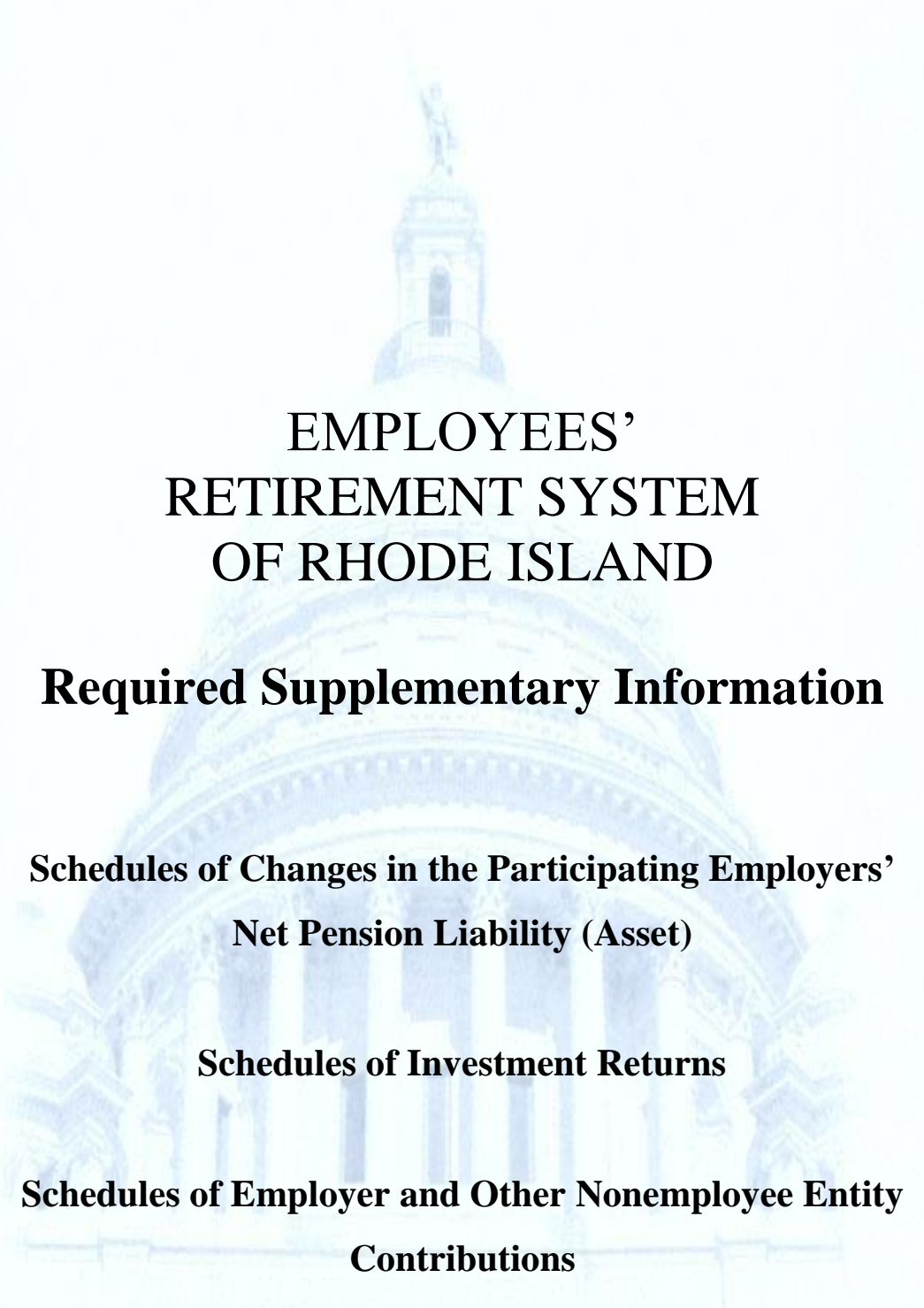
effect of the class action on retirees. The State has moved to dismiss all counts in the Plaintiffs complaint. A hearing was held on that motion and the parties await a decision from the Court.

The State intends to vigorously defend these matters and cannot presently estimate the potential loss, if any.

13. Subsequent events

At its October 2016 meeting, the State Investment Commission voted to redeem the investment in seven hedge funds totaling approximately \$586 million. The action was taken as part of an overall asset allocation review. Redemptions are expected to commence in February 2017 and continue through December 2017 consistent with hedge fund contract redemption terms.

In September 2016, pursuant to a law enacted by the General Assembly, the State made the initial deposit of \$15 million to a new trust, under the governance of the Employees' Retirement System of Rhode Island, to fund and pay benefits that were earned under the provisions of the State Police Non-Contributory Retirement Plan. These funds were received by the State as a result of an asset forfeiture that stemmed from a multi-law enforcement agency investigation of Google, Inc. The legislation also calls for the State to make payments into the Trust to amortize the remaining unfunded liability over a period of 18 years.



**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 Nonemployee Entity
Contributions**

Notes to Required Supplementary Information

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND
Notes to Required Supplementary Information - Fiscal Year Ended June 30, 2016

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 actuarial assumptions used in the valuations and the calculation of the total pension liability were consistent with the results of an actuarial experience study performed as of June 30, 2013.

The following information is presented about factors that significantly affect trends in the amounts reported between years.

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 4.0%.

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.

- 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.

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

- Members who retired from a COLA eligible plan before July 1, 2012 will received 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 the discount rate (5yr Return - 7.5%, 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 2016 for the plans were based on valuations performed as of June 30, 2013.

Contributions for teachers within the ERS plan include \$87,997,637, \$84,943,801 and \$76,700,915 of nonemployer entity contributions made by the State of Rhode Island for fiscal years 2016, 2015, and 2014, respectively.

Contributions for the TSB plan are 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, 2015 and 2016.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND
Notes to Required Supplementary Information - Fiscal Year Ended June 30, 2016

2. Actuarially determined contributions (continued)

Summary of Actuarial Methods and Assumptions Used to determine Fiscal 2016 contribution rates							
	ERS		MERS	SPRBT	JRBT	RIJRFT	TSB
	State Employees	Teachers					
Valuation Date	June 30, 2013						
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	22 years					17 years	
Asset Valuation Method	5 Year Smoothed Market						Market value
Actuarial Assumptions							
Investment Rate of Return	7.50%	7.50%	7.50%	7.50%	7.50%	4.00%	7.5%
Projected Salary Increases	4.00% to 7.00%	4.00% to 12.75%	<u>General Employees</u> 4.00% to 8.00% <u>Police & Fire Employees</u> 4.25% to 14.25%	4.00% to 12.00%	4.00%	2.00%	4.00% to 12.75%
Mortality	<ul style="list-style-type: none"> • Male Employees, MERS General and MERS P&F: 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected with Scale AA from 2000. • Female Employees, MERS General and MERS P&F: 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected with Scale AA from 2000. 						Mortality the same as for teachers
		Male and female teachers: 97% and 92%, respectively of rates in a GRS table based on male and female teacher experience, projected with Scale AA from 2000.					
Inflation	2.75%						

Cost of Living Adjustments

For the MERS plan, a 2% COLA is assumed after January 1, 2014. For all other plans, a COLA of 2% is assumed only every five years until the plans achieve an 80% collective funded status in accordance with the law.

COLA provisions were modified with the enactment of the new RISA provisions in July 2015 – these provisions are effective in the actuarial valuations prepared for funding purposes as of June 30, 2015.

2. Actuarially determined contributions (continued)

For the TSB plan, a 2.75% COLA is assumed – the actual COLA in any year is based on the COLA provided for federal Social Security recipients.

Supplemental contributions

Certain supplemental contributions required by the General Laws were made to the ERS plan. These amounts are not included in the annual required contribution amounts or the percentage contributed in the schedule. These supplemental contributions are more fully explained in Note 7 (d) to the financial statements.

3. Covered employee payroll

Covered employee payroll, as included in required supplementary information schedules, includes projected annualized payroll amounts for employees beginning employment during the fiscal year. Consequently, the covered employee payroll amounts included in the required supplementary information schedules may differ from the actual fiscal year payroll base to which the actually 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.



Office of the Auditor General

State of Rhode Island and Providence Plantations - General Assembly
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**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS
BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED
IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

Joint Committee on Legislative Services, General Assembly
State of Rhode Island and Providence Plantations:

Retirement Board of the Employees' Retirement System of the State of Rhode Island:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the plans within the Employees' Retirement System of Rhode Island (System) as of and for the year ended June 30, 2016 and the related notes to the financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated January 20, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

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

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

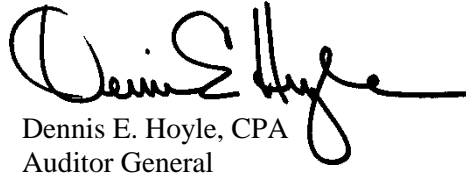
Joint Committee on Legislative Services, General Assembly
Retirement Board of the Employees' Retirement System of the State of Rhode Island:

Compliance and Other Matters

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

Purpose of this Report

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



Dennis E. Hoyle, CPA
Auditor General

January 20, 2017