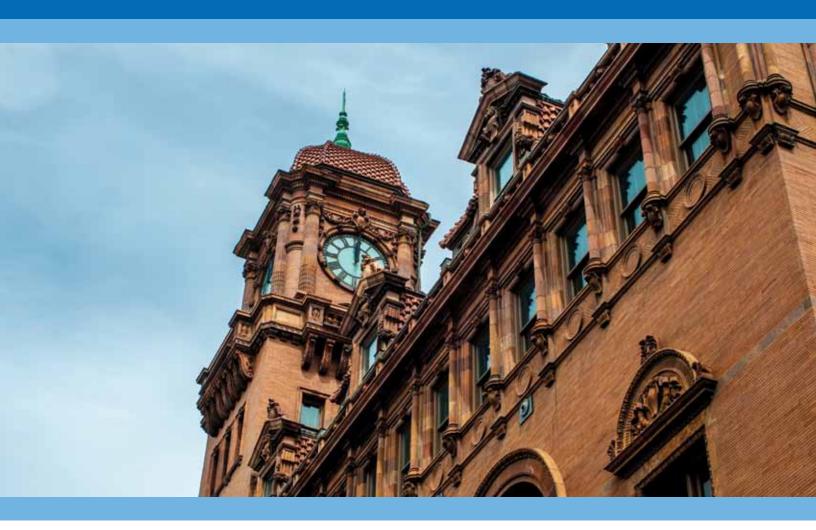
# **Comprehensive Annual Financial Report**

For the fiscal year ended June 30, 2015



A component unit of the City of Richmond, Virginia

Leo F. Griffin, CPA Executive Director Richmond Retirement System



# Comprehensive Annual Financial Report for the fiscal year ended June 30, 2015

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# Vision

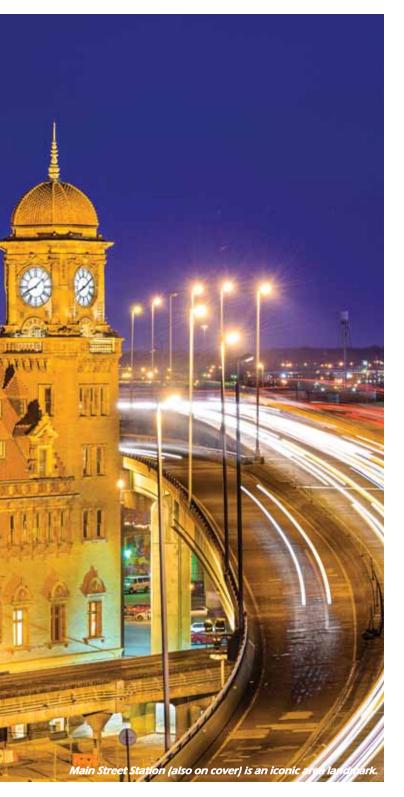
Our vision is to be a recognized leader in pension fund management and administration, the standard by which others measure their progress and success. Every employee of the RRS displays a devotion to maintaining excellence in public service and embraces the highest standards of excellence, accountability, dependability and integrity. All participating employers, along with active, former and vested members, should take pride in knowing that the RRS provides the best retirement services available and is an exemplary steward of their pension funds.

# Mission

To deliver timely and effective communications and retirement services with integrity and professionalism to the members of the Richmond Retirement System, its Board of Trustees, City officials, departments, and City Council.

A publication of the Richmond Retirement System, A component unit of the City of Richmond, Virginia





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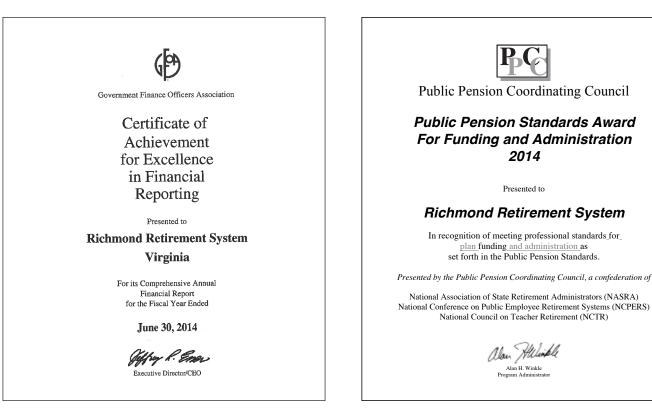


# **Introductory Section**

#### In this section:

Awards Letter of Transmittal Organizational Chart Board of Trustees Executive Director Investment Advisory Committee Services, Examiners and Investment Managers

# Awards



# Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the RRS for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2014. This was the 24th consecutive year that the RRS achieved this prestigious recognition.

To be awarded the certificate, a government unit must publish an easily readable and efficiently organized comprehensive annual report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. The certificate is valid for a period of one year. The RRS's CAFR for FY 2015 continues to conform to the Certificate of Achievement Program requirements and will be submitted to GFOA to determine its eligibility for another certificate.

# Public Pension Coordinating Council Achievement Award

The RRS received the 2014 Achievement Award from the Public Pension Coordinating Council (PPCC) in recognition of the agency's excellence in meeting the Public Pension Standards. Developed by PPCC, these standards are the benchmark for measuring excellence in defined benefit plan funding and administration.

This is the fifth award from the PPCC. The purpose of the award is to promote high professional standards for public employee retirement systems and publicly commend systems that adhere to these standards. The PPCC is a coalition of the National Association of State Retirement Administrators (NASRA), National Conference on Public Employee Retirement Systems (NCPERS) and the National Council on Teacher Retirement (NCTR).

# Letter of Transmittal



# City of Richmond, Virginia

RICHMOND RETIREMENT SYSTEM

The Honorable City Council City of Richmond 900 East Broad Street, Suite 200 Richmond, VA 23219 *and* The Honorable Mayor Dwight C. Jones City of Richmond 900 East Broad Street, Suite 201 Richmond, VA 23219 November 24, 2015

Dear City Council Members and Mayor Jones:

On behalf of the Board of Trustees of the Richmond Retirement System (RRS or the System) and in accordance with City of Richmond code § 78-54, I am pleased to submit the Comprehensive Annual Financial Report (CAFR) for the fiscal year (FY) ended June 30, 2015. The CAFR was prepared by the RRS, a component unit of the City of Richmond, and management maintains responsibility for the accuracy and completeness of the presentation including all disclosures.

On November 24, 2015 Moss Adams LLP, an independent auditor, issued an unmodified opinion for our financial statements for the fiscal year ended June 30, 2015; their report is included on page 16 of the CAFR.

In addition to the Introductory Section, the RRS's CAFR contains a Financial Section, Investment Section, Actuarial Section, and Statistical Section. The Letter of Transmittal is designed to complement Management's Discussion and Analysis (MD&A) and should be read in conjunction with it. The MD&A can be found in the Financial Section on page 18 and provides in-depth analysis of the RRS's financial statements.

continued on next page



# City of Richmond, Virginia

RICHMOND RETIREMENT SYSTEM

## Overview

The RRS was first established in 1945 by Richmond City Council and reestablished by the acts of the Virginia General Assembly in 1998, 2005, 2008, and 2010. The System administers a defined benefit (DB) and defined contribution, 401(a) (DC) plans in accordance with provisions outlined in both the Richmond City Charter (5B.01) and Chapter 78 of the Code of the City of Richmond. One employer, the City of Richmond, and its component unit, The Richmond Behavioral Health Authority, participate in the RRS on behalf of their employees. Information related to the DC Plan can be found in the Statistical Section of this report.

Chapter 78 of the Code of the City of Richmond details how these plans are administered. On July 1, 2006, the defined benefit plan was closed to newly hired and rehired employees, except sworn police officers and firefighters, and eligible senior executive employees. For all members, vesting occurs with five years of creditable service, or upon attainment of the member's normal retirement age. For sworn police officers and firefighters, this is age 60. For all other employees, referred to as "general employees," the normal retirement age is age 65.

Additional information about RRS plans, members, and participating employers, are provided on pages 29-34 and 67-71.

#### Governance

The Richmond City Council has delegated authority to the Board of Trustees (the Board) to invest the System's trust funds. To fulfill this obligation, the Board developed investment objectives and policy guidelines to manage its investments. The investment objectives include ensuring that funds are available to meet current and future obligations of the plan and to earn an investment return greater than the actuarial return assumption.

State Street Corporation serves as the fund's custodian bank and NEPC, LLC serves as the Board's DB Plan investment consultant. Investment managers are selected by the Board to best manage the fund's assets within each manager's area of expertise. Hyas Group, LLC serves as the Board's DC Plan consultant. More information about the RRS's investment policies can be found on pages 47-50 of this CAFR.

The Richmond City Council and the Board are responsible for discharging their duties solely in the interest of the members and beneficiaries of the System and shall invest the assets with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and like aims (City of Richmond Code §78-82(d)).

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# City of Richmond, Virginia

RICHMOND RETIREMENT SYSTEM

## Accounting Basis and Internal Control

Financial statements included in the CAFR have been prepared in accordance with generally accepted accounting principles (GAAP) for governmental accounting and reporting under the Governmental Accounting Standards Board (GASB) and the Financial Accounting Standards Board (FASB).

The accrual basis of accounting is used in the preparation of the financial statements. Revenues are recognized when they are earned and become measurable; expenses are recognized when the liabilities are incurred. Investments are reported at fair value. In management's opinion, the financial statements fairly present RRS's net position at June 30, 2015 and the changes in its plan net position.

RRS management is responsible for maintaining a system of adequate internal controls designed to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatements. The concept of reasonable assurance recognizes that these controls should be cost-effective and that the cost of a control should not exceed the benefits to be derived from that control. In management's opinion, the internal controls in effect during FY 2015 adequately safeguard the RRS's assets and provide reasonable assurance regarding the proper recording of financial transactions.

## Funding

The funded status is the ratio of assets to actuarial liabilities and is an indicator of the System's ability to pay its longterm obligations. As of June 30, 2015, the funded status, as determined by the System's actuary, SageView Consulting Group, LLC, was 63.5% compared to 63.8% the prior year. The funded status decreased by .3% primarily due to the fiscal year investment return being less than the actuarial assumed rate of return. Generally speaking, a plan that is 80% funded is considered "healthy" and in a strong position to meet its long-term benefit obligations.

The Administration and City Council should remain committed to the improvement of the System's funded status through actions such as continuing to fund the Actuarially Determined Contribution along with restraint on benefit enhancements without the proper funding allocated to the System.

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# City of Richmond, Virginia

RICHMOND RETIREMENT SYSTEM

#### Investments

For the fiscal year ended June 30, 2015, RRS's investment portfolio returned 2.7% on a net-of-fees basis compared to an investment return of 15.9% net-of-fees basis in the prior year. As of June 30, 2015, the fair market value of the RRS investment portfolio was \$549.6 million, a decrease of \$5.2 million from the prior year.

## Highlights and Major Initiatives

The RRS was awarded a Certificate of Achievement for Excellence in Financial Reporting by the GFOA for the fiscal year ended June 30, 2014. This national award is granted to governments whose comprehensive annual financial reports meet or exceed the GFOA's guidelines. Additionally, the RRS was awarded a Certificate of Funding and Administration by the Public Pension Coordinating Council (PPCC) for the fiscal year ended June 30, 2014.

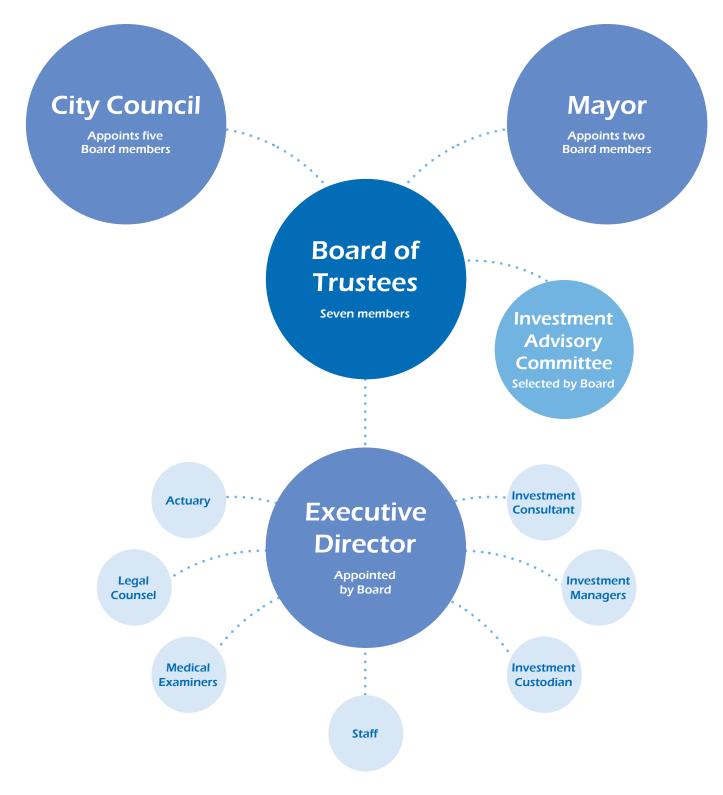
# Acknowledgments

I would like to express my gratitude to the Board of Trustees, Investment Advisory Committee, and my staff. I would also like to thank City Council and the Mayor of the City of Richmond for your continued support of the Richmond Retirement System. Your guidance and commitment to improve the funded status of the Richmond Retirement System is valued.

Respectfully submitted,

Leo F. Griffin, CPA Executive Director

# Organizational Chart



The Schedule of Fees and Commissions is located on page 54 and 55 of this report.

# Board of Trustees



Kenneth N. Daniels, Ph.D. Chairman Professor of Finance Virginia Commonwealth University



**Norman Butts** Deputy Chief Administrative Officer (Retired) City of Richmond



**David H. Naoroz** *Police Lieutenant* City of Richmond



Kevin W. Davenport Vice Chairman Vice President of Administration & Finance and CFO Virginia State University



**S. Brian Farmer, Esq.** *Treasurer and Business Section Chairman* Hirschler Fleischer



Jacquelyn E. Stone, Esq. Partner McGuire Woods, LLP



**Matthew E. Peanort** Budget & Management Analyst, Department of Budget and Strategic Planning City of Richmond

# Executive Director



**Leo F. Griffin, CPA** *Executive Director* Richmond Retirement System

# Investment Advisory Committee

#### Kenneth N. Daniels, Ph.D., Chairman

Professor of Finance Virginia Commonwealth University

## Kevin W. Davenport, Vice Chairman

Vice President of Administration & Finance and CFO Virginia State University

#### **S. Brian Farmer, Esq.** *Treasurer and Business Section Chairman* Hirschler Fleischer

## Michael Hultzapple, CPA, CFA® Managing Director

Alpha Performance Verification Services

#### **Basil L. Hurst III**

Head of Business Development and Investor Relations Stelliam Investment Management LP

# W. Massie Meredith, Jr.

Managing Member Alternative Investments Group, LLC

#### **Gregory A. Schnitzler, CFA®** *Managing Partner* Ascential Equity, LLC

# Donald A. Steinbrugge, CFA®

*Managing Partner* Agecroft Partners, LLC

#### Leo F. Griffin, CPA

Executive Director Richmond Retirement System

# Services, Examiners and Investment Managers

# **Professional Services**

#### **Consulting Actuary**

**SageView Consulting Group, LLC** 4421 Cox Road Glen Allen, VA 23060 Independent Auditor Moss Adams LLP

999 Third Avenue, Suite 2800 Seattle, WA 98104 Investment Consultant NEPC, LLC 255 State Street Boston, MA 02109

**Orthopedic** 

Dr. Harry Shaia

OrthoVirginia

Dr. Robert S. Adelaar

Dr. William Fleming

#### **Investment Custodian**

**State Street Corporation** 801 Pennsylvania Avenue Kansas City, MO 64105

Vascular Specialist

The Vascular Group at Richmond

Dr. Broadie G. Newton

Surgical Group

# **Medical Examiners**

#### **Cardiopulmonary** Dr. Phillip B. Duncan

Eye, Ear, Nose and Throat

Dr. Nicholas G. Tarasidis

**General Medicine** Dr. Barrington Bowser, Jr. Dr. Roderick Haithcock Dr. George Maughan

**Mental Health** Dr. William Brock

# Investment Managers

**Abbey Capital, Ltd.** Dublin 1, Ireland

ABS Investment Management, LLC Greenwich, CT

Acadian Asset Management, Inc. Boston, MA

Audax Group, L.P. Boston, MA

Axiom International Investors, LLC Greenwich, CT

BlackRock Financial Management, Inc. New York, NY

Brandywine Global Investment Management, LLC

Philadelphia, PA CarVal

Hopkins, MN

CenterSquare Investment Management Plymouth Meeting, PA

Chartwell Investment Partners Berwyn, PA

EIG Global Energy Partners

Washington, D.C.

Fort Hill Investment Partners, LLC Stamford, CT

**Global Credit Advisors** New York, NY

**Golub Capital** New York, NY

Grantham, Mayo, Van Otterloo & Co., LLC Boston, MA

**J.P. Morgan Asset Management** New York, NY **Lexington Partners, Inc.** Boston, MA

Tuckahoe Orthopaedic Associates, Ltd.

**Loomis, Sayles & Co., L.P.** Boston, MA

LSV Asset Management Chicago, IL

Oaktree Capital Management Los Angeles, CA

Orion Capital Managers London, England

Park Square Capital, LLP London, England

**Pine Grove Associates, Inc.** Summit, NJ

**Private Advisors, LLC** Richmond, VA

Protégé Partners QP Fund, Ltd. New York, NY Rimrock Capital Management, LLC

Irvine, CA

State Street Global Advisors Boston, MA

**StepStone Group, LLC** San Diego, CA

**Stone Harbor Investment Partners, L.P.** New York, NY

**TPG Opportunities Partners, L.P.** Fort Worth, TX

Tricadia Capital Management, LLC New York, NY

Westwood Management Dallas, TX

# **Financial Section**

The RRS administers pension benefit plans for approximately 10,000 members, retirees and beneficiaries. The purpose of the financial section is to present the plan's assets for the fiscal year through the audited basic financial statements. To support this information, the section includes management's discussion and analysis as well as the notes to the financial statements.

#### In this section:

Report of Independent Auditor Management's Discussion and Analysis Summary of Financial Statements Asset Allocation Statement of Fiduciary Net Position Statement of Changes in Fiduciary Net Position Notes to Financial Statements Summary of Significant Financial Policies Deposits and Investments Litigation Plan Description Contributions Required and

Contributions Made

# Report of Independent Auditor

WWW.MOSSADAMS.COM

MOSS ADAMS LLP Certified Public Accountants | Business Consultants

To the Board of Trustees Richmond Retirement System Richmond, Virginia

## **Report on the Financial Statements**

We have audited the accompanying financial statements of the Richmond Retirement System (the "System"), a component unit of the City of Richmond, Virginia, which are comprised of the statement of fiduciary net position as of June 30, 2015, the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements.

#### 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 an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. 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.

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

## Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the System as of June 30, 2015, and the change in net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

# Other Matters

# Required Supplementary Information

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

## Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the Fund's financial statements. The schedule of administrative expenses, schedule of investment expenses, schedule of payments to investment consultant, and schedule of retirement benefit payments (collectively, the "supplementary information") are presented for purposes of additional analysis and are not a required part of the financial statements.

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

## Additional Information

The introductory, investment, actuarial, and statistical sections as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements of the System. Such additional information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we express no opinion on it.

## 2014 Financial Statements

The basic financial statements of the System as of and for the year ended June 30, 2014, were audited by other auditors, whose report dated October 16, 2014, expressed an unmodified opinion on those financial statements.

MOSS Adams LAP

Seattle, Washington November 24, 2015



# Management's Discussion and Analysis

The discussion and analysis of the Richmond Retirement System's (RRS) pension fund financial performance provides an overview of its financial activities and funding condition for the fiscal year ended June 30, 2015.

# **Financial Highlights**

The rate of return on investments during the fiscal year ended June 30, 2015 was 2.7% (net of fees) versus the expected rate of return of 7.5%.

The RRS's net position decreased by approximately \$4.8 million to \$540.1 million during fiscal year 2015. The total assets were \$592.9 million and the total liabilities were \$52.8 million. The market value of the investment portfolio decreased by approximately \$1.2 million.

The major components of the RRS's additions to net position were contributions of \$49.0 million and \$15.6 million in net investment gains.

The primary deductions of the RRS's net position were the retirement, survivor, and disability benefit payments to members and their beneficiaries; additional deductions were for administrative costs. Deductions for fiscal year 2015 totaled \$69.5 million, an increase of \$0.9 million or 1.28% over fiscal year 2014. The increase is primarily attributable to an increase in retirement benefits payments.

# Plan Membership

The table titled Plan Membership reflects the RRS's membership, including Defined Benefit Plan participants and Defined Contribution 401(a) Plan participants, as of the beginning and end of the year. Please see the Schedule of Membership on page 71 for a complete listing of active members by department.

## **Plan Membership**

	FY 2015	FY 2014	Increase/ (Decrease)	Percent Change
Active Vested DB Plan Members	1,776	1,835	(59)	-3.2%
Active Non-vested DB Plan Members	243	230	13	5.7%
Terminated Vested DB Plan Members	1,620	1,662	(42)	-2.5%
Active DC 401(a) Plan Members	1,890	1,865	25	1.3%
Retirees & Beneficiaries	4,314	4,312	2	0.0%
Total:	9,843	9,904	(61)	-0.6%

# **Financial Statements**

The basic financial statements are designed to provide readers with a broad overview of the RRS's finances in a manner similar to a private-sector business and in accordance with U.S. Generally Accepted Accounting Principles (GAAP).

The Statement of Fiduciary Net Position on (page 22) presents information on all of the RRS's assets and liabilities, with the difference between the two reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the system is improving or deteriorating.

The Statement of Changes in Fiduciary Net Position (page 23) displays the changes in the RRS's net position that occurred during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in the statement for some items that will result in cash flows in future fiscal periods (for example, administrative expenses and investment expenses).

The City of Richmond's basic financial statements present information about the RRS as a fiduciary pension trust fund. A fiduciary fund is used to account for resources held for the benefit of parties outside the government. Fiduciary funds are not available to support the City of Richmond's programs.

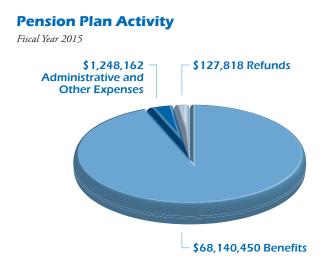
# Notes to the Financial Statements

The notes to the basic financial statements provide additional information essential for a full understanding of the information provided in the RRS's financial statements.

The condensed financial data of net position, additions, and deductions for the fiscal years ended June 30, 2015 and 2014 is on the next page.

# Notable Events

The RRS moved into a new office space May 1, 2015. The RRS capitalized all costs associated with improving the space and preparing it for working condition. A ten-year straight-line method of depreciation will be used for the furniture, fixtures, equipment, and leasehold improvement costs that were capitalized during the project.



# Summary of Financial Statements

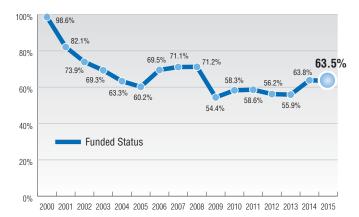
Activity for the Fiscal Year Ended June 30 (Dollars in Millions)	FY 2015	Increase/ (Decrease)	FY 2014	Increase/ (Decrease)	FY 2013
Total Assets	\$592.90	\$(3.31)	\$596.21	\$55.84	\$540.37
Total Liabilities	(52.84)	(1.54)	(51.30)	(3.55)	(47.75)
Net Assets	540.06	(4.84)	544.90	52.28	492.62
Contributions	49.03	4.57	44.46	1.92	42.54
Net Investment Earnings	15.64	(60.82)	76.46	22.24	54.22
Total Additions	64.67	(56.25)	120.92	24.16	96.76
Benefits Payments	68.27	0.95	67.32	2.55	64.77
Administrative Expenses	1.25	(0.07)	1.32	0.19	1.13
Total Deductions	69.52	0.88	68.64	2.74	65.90
Total Additions	64.67	(56.25)	120.92	24.16	96.76
Total Deductions	(69.52)	(0.88)	(68.64)	(2.74)	(65.90)
Net Change	\$(4.84)	\$(57.13)	\$52.29	\$21.43	\$30.86
Contribution Rates					
General	39.08%		35.70%		31.46%
Police/Fire	42.44%		39.83%		37.35%

# **Funding Status**

Of primary concern to most pension plan participants is the amount of money available to pay benefits. The City of Richmond has traditionally contributed the actuarially determined contributions (ADC) as determined by the RRS's actuary. Therefore, a net pension obligation has never existed for the system. This is due in large part to the City Code requirement that contributions to the RRS consist of a normal contribution plus an accrued liability contribution which, combined, equal the ADC.

For fiscal years ending prior to June 30, 2014, an indicator of funding status is the ratio of the actuarial value of the assets to the liability when using the Projected Unit Credit Method. Beginning with the fiscal year ended June 30, 2014, the funding status is determined using market value of assets and Entry Age Normal Actuarial Cost Method. An increase in this percentage over time usually indicates a plan is becoming financially stronger. However, a decrease will not necessarily indicate a plan is in financial decline. Changes in actuarial assumptions can significantly impact the actuarial liability. Performance

Schedule of Funding Progress As of June 30, 2015



in equity and fixed income markets can have a material impact on the market value of assets.

The table on page 21 indicates the policy target asset allocation as of June 30, 2015. In identifying the optimal asset mix strategy for the RRS, the Board of Trustees has adopted the aforementioned asset allocation policy. To ensure compliance with the policy, a rebalancing strategy is employed which requires periodic rebalancing for each asset class.

# Asset Allocation

Asset Class	Target Allocation	Target Range
U.S. Equity Total:	27.00%	
Large Cap Passive U.S. Equities	8.00%	3%-13%
Large Cap U.S. Growth	5.00%	0%-10%
Large Cap U.S. Value	5.00%	0%-10%
Small/Mid Cap Growth U.S. Equities	2.50%	0%-7.5%
Small/Mid Cap Value U.S. Equities	2.50%	0%-7.5%
Large/Short Equity	4.00%	0%-9.0%
International Equity Total:	15.00%	
Developed International Equities	8.00%	3% - 13%
Emerging International Equities	7.00%	2% - 12%
Fixed Income Total:	27.50%	
Global Multi-Sector Fixed Income	22.50%	12.5%-32.5%
Opportunistic Fixed Income	5.00%	0%-10%
Alternatives Total:	29.00%	
Hedge Funds	8.00%	7%-17%
Private Equity	8.00%	3%-13%
Private Debt	8.00%	0%-10%
Real Estate	5.00%	0%-10%
Cash Total:	1.50%	0% - 5%

# **Investment Activities**

Investment income is vital to the RRS's current and continued financial stability. Therefore, the Board of Trustees has a fiduciary responsibility to act prudently when making investment decisions. To assist the Board in this area, a comprehensive formal investment policy is updated periodically.

As managers and asset classes have been added, specific detailed investment guidelines have been developed, adopted, and included as an addendum to each Investment Manager's Professional Service Contract.

The Board and its consultants, New England Pension Consultants, review portfolio performance quarterly. Performance is evaluated individually by money manager style, collectively by investment type and for the aggregate portfolio. The RRS's Total Fund return of 2.7% (net of fees) was less than the long-term 7.5% actuarial return assumption target for the year. The RRS's Total Fund gained 10.5% on an average annual basis in the five-year period ending June 30, 2015, which matched the Total Fund benchmark for the same period. The Total Fund returns are reported net of fees. A schedule of investment results of one-year, three-year, and five-year average performance, with comparable benchmarks, is available in the Investment Section (see page 57.)

# **Economic Factors**

In terms of economic outlook, two factors primarily impact the system: (1) the employer/employee contributions; and (2) the return on investments. These factors directly impact the primary functions of the pension trust, which are to (a) appropriately award and pay benefits and (b) manage investments.

# Contacting the RRS's Financial Management

The financial report is designed to provide citizens, taxpayers, plan participants and the marketplace's credit analysis with an overview of the RRS's finances and the prudent exercise of the Board of Trustee's oversight. If you have any questions regarding this report or need additional financial information, please contact the Richmond Retirement System, 730 E. Broad Street, Suite 900, Richmond, Virginia 23219.

# 12 Total Fund 10.5% 10.5% 10 9.0% 9.0% 6 9.0% 9.0%

3 Years

#### Investment Performance (Net of Fees)

4

2

0

2.7%

1 Year

2.7%

5 Years

# Statement of Fiduciary Net Position

# **Defined Benefit Pension Trust Fund**

As of June 30

		55
Assets	2015	2014
Cash and Short-Term Investments (Note II)	\$8,176,567	\$12,443,520
Receivables		
Receivables for Security Transactions	3,886,944	2,272,890
Contributions from Participating Employers	2,124,654	1,848,643
Interest and Dividends	227,165	712,441
Other Receivables	9,259	16,198
DC Admin Reimbursement	147,631	-
Total Receivables	6,395,652	4,850,171
Investments, at Fair Value (Note II)		
Common Stock	152,660,796	168,963,956
International Stock	90,845,778	96,150,418
Hedge Funds	69,751,058	65,303,836
Corporate Bonds and Notes	18,384,960	62,546,230
International Bonds and Notes	41,454,020	47,364,825
Private Real Estate	26,887,181	23,909,232
Mutual Funds	17,159,740	19,960,287
Private Debt	19,032,349	19,073,916
US Government and Agency Obligations	9,104,639	16,454,690
Private Equity	15,423,158	13,639,003
REITs	5,199,534	6,963,363
Opportunitic Fixed Income	75,126,113	-
Emerging Market Debt	4,332,956	6,199,789
Total Investments	545,362,282	546,529,544
Cash Collateral Received Under Securities Lending Program	32,381,743	32,384,739
Fixed Assets		
FF&E	232,962	_
Leasehold Improvement	346,788	-
Total Fixed Assets	579,749	-
Total Assets	592,895,993	596,207,976
Liabilities		
	0.225.422	10 009 506
DROP Payable	9,325,422	10,098,596
Payable for Security Transactions	7,532,747	6,604,133
Accounts Payable and Accrued Expenses	2,772,946	1,403,805
Investment Expenses Payable	555,500	558,000
Retirement and Death Benefits Payable	266,770	254,402
Total Accounts Payable	20,453,386	<b>18,918,93</b> 7
Payable for Collateral Received Under Securities Lending Program	32,381,743	32,384,739
Total Liabilities	52,835,129	51,303,676
Net Position Restricted for Pensions	\$540,060,865	\$544,904,299

The accompanying Notes to Financial Statements, which begin on page 24, are an integral part of this statement.

# Statement of Changes in Fiduciary Net Position

# **Defined Benefit Pension Trust Fund**

**Additions** 

City of Richmond (Note V)

20152014\$45,330,242\$41,131,1881,128,0021,113,946

As of June 30

Richmond Behavioral Health Authority	1,128,002	1 112 0/6
	1,120,002	1,113,946
Richmond Public Schools	78,625	49,792
Revenue for DC Plan Expenses	147,631	47,695
Total Employer Contributions	46,684,500	42,342,620
Total Member Contributions	2,347,163	2,118,493
Total Contributions	49,031,663	44,461,114
Investment Income		
Net Appreciation in Fair Value of Investments (Note II)	11,736,262	71,592,775
Dividends	3,808,161	4,773,694
Interest	2,463,194	2,411,010
Total Investment Income before Investment Expense	18,007,617	78,777,479
Investment Expenses	(2,420,344)	(2,379,575)
Net Investment Income	15,587,273	76,397,904
Security Lending Income		
Gross Income	95,201	111,104
Less Borrower Rebates and Agent Fees	(41,141)	(45,722)
Net Security Lending Income	54,060	65,382
Total Net Investment Gain	15,641,334	76,463,286
Total Additions	64,672,996	120,924,399
Deductions		
Retirement Benefits	(68,140,450)	(67,274,187)
Refunds of Member Contributions	(127,818)	(46,678)
Administrative Expenses	(1,248,162)	(1,318,016)
Total Deductions	(69,516,431)	(68,638,882)
Net Increase (Decrease)	(4,843,435)	52,285,518
Net Position Restricted for Pensions		
Beginning of Year	544,904,299	492,618,782

The accompanying Notes to Financial Statements, which begin on the following page, are an integral part of this statement.

# Notes to Financial Statements

# I. Summary of Significant Financial Policies

# (A) Financial Reporting Entity

The RRS is a component unit of the City of Richmond, Virginia. The RRS's operations are accounted for as a blended component unit in the city's financial reporting entity because it provides services for the benefit of the city's employees. Its operations are included in the City of Richmond's basic financial statements as a fiduciary pension trust fund.

## (B) Administration and Management

The RRS is governed by the Board of Trustees, which administers the retirement program according to the requirements of the Code of the City of Richmond, and other governing law. The Board is responsible for the general administration and operation of the Defined Benefit Plan. The Board has full power to invest and reinvest the trust funds of the RRS through the adoption of the investment policies and guidelines that fulfill the Board's investment objectives to maximize long-term investment returns while targeting an acceptable level of risk.

The Board of Trustees consists of seven members; City Council appoints five members and the Mayor appoints two members. The Board appoints an Executive Director to administer and transact the RRS's business. The Board also retains outside investment managers and consultants to advise and assist in the implementation of these policies, and State Street Corporation is the bank (custodian) of designated assets of the RRS.

The provisions of Chapter 78 of the Code of the City of Richmond govern the actual operations of the RRS.

The Board of Trustees has oversight and limited administrative responsibility, but no investment responsibility, for the Defined Contribution 401 (a) Plan established for employees of participating employers who were hired or rehired on or after July 1, 2006. Because the Board neither owns nor has custody of the assets, their financial transactions are not recorded in the RRS's accounting system. Therefore, these programs are not included in the RRS's basic financial statements. Additional information about the Defined Contribution 401(a) Plan is provided in the statistical section of this report.

## (C) Accounting Basis

The basic financial statements are presented in accordance with U.S. Generally Accepted Accounting Principles (GAAP) using the accrual basis of accounting and the economic resources measurement focus.

Under the accrual basis, revenues are recognized when

# Investment Standard of Care

As stated in Section 78-82(d) of the City of Richmond Code, "...the Board shall discharge their duties with respect to the System solely in the interest of the members and beneficiaries of the System and shall invest the assets of the System with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and like aims."

Accordingly, the Board must diversify the portfolio to minimize the risk of large losses unless, under the circumstances, it is clearly prudent not to do so. Primary risk measures are volatility in the plan's assets, funded status, and contribution rates.

earned and expenses are recognized when liabilities are incurred, regardless of the timing of related cash flows. Member and employer contributions are recognized as revenue, when due, in the period in which employees' services are performed pursuant to the Code.

Investment income is recognized when earned by the plan. Benefits and refunds are recognized when due and payable in accordance with the Code.

# (D) Actuarial Basis and Contribution Rates

The funding policy for the pension plan provides for periodic employer contributions at actuarially determined rates as a percentage of payroll and will accumulate sufficient assets to meet the cost of all benefits when due. Member and employer contributions are required by Sections 78-111 - 78-113 of the Code.

The contribution rates for fiscal year ending June 30, 2015 were developed by the July 1, 2013 valuation using the Projected Unit Credit Method. The July 1, 2014 valuation developed contribution rates for the fiscal year ending June 30, 2016, using the Entry Age Normal Actuarial Cost Method, in accordance with GASB 67. This method is also used in the RRS' fiscal year 15 annual valuation for purposes of determining funded status. The unfunded actuarial liability, and any changes in unfunded actuarial gains and losses and changes in methods and assumptions, is amortized over a period not more than 30 years, with contributions increasing 4% per year for Police and Fire employees.

Actuarial valuations estimate the value of reported amounts and assumptions about the probability of occurrence of events in the future. The actuarial assumptions include mortality, turnover, and the use of benefits. Actuarially determined amounts are subject to revision as actual results are compared with past expectations and new estimates are made about the future. The required supplemental schedules of employer contributions and employer net pension liability, which follow these notes, present historical information about the increase or decrease of the actuarial values of the plan's assets over time relative to the actuarial accrued liability.

# (E) Administrative Expenses and Budget

The Board of Trustees approves expenses related to the administration and management of the RRS. These expenses are included in a budget prepared using the full accrual basis of accounting. Expenses for goods and services received but not paid for prior to the RRS's fiscal year end are accrued for financial reporting purposes in accordance with GAAP. Administrative expenses for the fiscal year ended June 30, 2015, are presented in the Schedule of Administrative Expenses in the Supporting Schedules Section following the Required Supplementary Information.

# (F) Governmental Accounting Standard Board (GASB) Statements

GASB Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions, establishes accounting and financial reporting standards for securities lending transactions. In these transactions, governmental entities transfer their securities to broker-dealers and other entities for collateral which may be cash, securities, or letters of credit and simultaneously agree to return the collateral for the same securities in the future. This statement requires governmental entities to report securities lent (the underlying securities) as assets in their Statement of Fiduciary Net Position. Cash received as collateral on securities lending transactions and investments made with that cash should be reported as assets. Additional information about the securities lending program is presented in Section H and in Note II.

GASB Statement No. 40, Deposits and Investment Risk Disclosures, requires disclosures related to credit risk, concentration of credit risk, interest rate risk, custodial credit risk and foreign currency risk. The statement also requires disclosure of custodial credit risk and foreign currency risk for depository accounts. Information about the RRS's deposit and investment risk is provided in Note II.

GASB Statement No. 67, Financial Reporting for Pension Plans — an amendment of GASB Statement No. 25 and No. 50. The statement requires changing the presentation of the financial statements, notes to the financial statements, and required supplementary information. Significant changes include an actuarial calculation of total and net pension liability. It also includes comprehensive footnote disclosure regarding the pension liability, the sensitivity of the net pension liability to the discount rate, and increased investment activity disclosures. The total pension liability, determined in accordance with GASB No. 67, is presented in Note V and in the Required Supplementary Information on page 38.

# (G) Investments

The investments of the RRS are reported at fair value as determined by the RRS's Custodian. The fair value is based on either quotations obtained from national security exchanges or on the basis of quotations provided by a pricing service, which uses information with respect to transactions on bonds, quotations from bond dealers, market transactions in comparable securities and various relationships between securities.

Security transactions and related gains and losses are recorded on a trade date basis. The cost of investments sold is the average cost of the aggregate holding of the specific investment sold. Dividend income is recorded on the ex-dividend date and interest income is accrued as earned.

Futures contracts are valued daily, with the resulting adjustment recorded as realized gains or losses arising from the daily settlement of the variation margin. Gains and losses related to forward contracts and options are recognized at the time the contracts are settled. Investments in limited partnerships are accounted for on the equity method of accounting, and their earnings or losses for the period are included in investment income using the equity method.

# (H) Securities Lending Program

The RRS lends securities to firms on a temporary basis through its Custodian. During the fiscal year, the Custodian loaned its securities at the direction of the RRS and received cash, U.S. government securities, and irrevocable bank letters of credit as collateral. The Custodian did not have the ability to pledge or sell collateral securities delivered absent a borrower's default.

Borrowers were required to deliver collateral for each loan in amounts equal to 102% of the market value of the loaned securities. The RRS did not impose any restrictions during the fiscal year on the amount of the loans that the Custodian made on its behalf, and the Custodian indemnified the RRS by agreeing to purchase replacement securities, or return the cash collateral, in the event the borrower failed to return the loaned security. There were no such failures by any borrowers during the fiscal year, nor were there any losses during the fiscal year resulting from a default of a borrower or the Custodian.

The RRS and the borrowers maintain the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested, together with the cash collateral of other qualified taxexempt plan lenders, in a collective investment pool.

The average duration of the short-term investments in the duration pool which includes securities with a remaining maturity of 91 days or greater for the year ended June 30, 2015 was 2,106 days with weighted average maturity of 42 days. The average duration of the short-term investments in the liquidity pool which primarily includes securities with a remaining maturity of 90 days or less for the year ended June 30, 2015 was 109 days with weighted average maturity of 28 days. As the loans are terminable at will, the duration of the investments generally did not match the duration of the investments made with the cash collateral.

As of June 30, 2015, the market value of the securities on loan was \$31,743,627. This balance is composed of U.S. government and agency securities of \$2,149,961, common stock of \$28,701,784, and corporate bonds of \$891,882. Securities on loan are included with investments on the Statement of Fiduciary Net Position and the invested cash collateral is included as an asset and corresponding liability. At June 30, 2015, the invested cash collateral had a market value of \$32,381,743 and was composed of U.S. government and agency securities of \$2,192,583, common stock of \$29,279,608 and corporate bonds of \$909,552.

The RRS cannot sell or pledge the collateral received absent a borrower default. At June 30, 2015, the RRS had no credit risk exposure to borrowers because the amounts it owes the borrowers exceeds the amounts the borrowers owe it.

# II. Deposits and Investments

# (A) Deposits

On June 30, 2015, the carrying amount of the RRS's deposits with financial institutions was \$651,363 and the bank balance was \$2,041,891. All funds deposited in banks are protected under the provisions of the Virginia Securities for Public Deposit Act (the Act). The Act requires financial institutions holding public deposits in excess of amounts insured by the Federal Deposit Insurance Corporation to pledge collateral in the amount of 50% of excess deposits, and savings and loans to pledge collateral in the amount of 100% of excess deposits to a collateral pool in the name of the State Treasury Board. The State Treasury Board can assess additional collateral from participating financial institutions to cover collateral shortfalls in the event of default, and is responsible for (1) monitoring compliance with the collateralization, (2) reporting requirements of the Act, and (3) notifying local governments of compliance by financial institutions.

# (B) Investments

## 1. Authorized Investments

The RRS invests in obligations of the U.S. government or its agencies, approved money market funds, other banks and savings and loan associations not exceeding federal insurance coverage, and commercial paper rated A-1 by Standard & Poor's or P-1 by Moody's. The RRS is also authorized to invest in fixed income securities; domestic and international equities; private debt; Real Estate Investment Trusts (REITs); private equity; private real estate and hedge fund-of-funds. Decisions as to individual equity security selection, security size and quality, number of industries and holdings, current income levels, turnover, and other tools employed by active managers are left to the managers' discretion, subject to the standards of fiduciary prudence, as set out in the respective manager's Investment Management Agreement. The RRS has 13 types of investments: common stock, international stock, corporate bonds and notes, international bonds and notes, hedge funds, mutual funds, U.S. government and agency obligations, private real estate, private debt, REITs, private equity, emerging market debt, and opportunistic fixed income.

The RRS extends investment commitments in the normal course of business. At June 30, 2015, unfunded commitments amounted to \$32.2 million.

# 2. Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation to the RRS. As of June 30, 2015, the RRS's fixed income assets that are not government guaranteed represent 79% of the domestic fixed income assets.

The RRS has an investment policy for credit risk. The domestic fixed income investments should emphasize high-quality and reasonable diversification. The investment managers are responsible for making an independent analysis of the credit worthiness of securities and their suitability as investments regardless of the classifications provided by rating agencies.

The RRS's fixed income portfolio credit quality and exposure levels as of June 30, 2015 are summarized in the Credit Quality and Exposure Levels of Nongovernment Guaranteed Securities table on the next page.

# **Concentration of Credit Risk**

This is the risk of loss that may be attributed to the magnitude of a government's investment in a single issue. There is no concentration of investments in any one organization that represents 5% or more of plan net position available for benefits.

# **Custodial Credit Risk**

This is the risk that in the event of the failure of the counterparty, the RRS will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party.

The RRS does not have exposure to custodial credit risk because the cash collateral received in each loan was invested together with the cash collateral of other qualified tax-exempt plan lenders in a collective investment pool.

At June 30, 2015, the market values of securities on loan and cash collateral, which are included in the amounts on page 26, were as follows on the next page:

	Securities on Loan	Cash Collateral
U.S. Government and Agency Obligations	\$2,149,961	\$2,192,583
U.S. Stocks	28,701,784	29,279,608
U.S. Bonds	891,882	909,552
Total	\$31,743,627	\$32,381,743

# 3. Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. At June 30, 2015, 25.1% of the System's portfolio is invested in international markets. The fair market value of the foreign equities, foreign fixed income, and emerging market debt is \$136.6 million as of June 30, 2015. The RRS's Investment Policy does not specifically address foreign currency risk; however, the System considers foreign currency risk during the selection and monitoring process of the fund managers.

The RRS has an Investment Policy for international investments which is presented on pages 47-50.

#### 4. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The RRS does not have a specific investment policy governing interest rate risk. The Effective Duration of Debt Securities by Investment Type table shows the RRS's interest rate exposure as of June 30, 2015.

# **Effective Duration of Debt Securities**

by Investment Type As of June 30, 2015

Investment Type	Market Value	Weighted Average Effective Duration (Years)
Corporate	\$9,527,681	8.35
US Treasury	4,241,540	5.76
Mortgage Pass-Through <sup>1</sup>	4,863,100	3.51
Asset Backed	831,567	2.99
СМО	2,131,883	4.41
CMBS	709,958	1.55
Agency	112,904	13.36
Yankee	684,804	7.77
Municipal	283,146	7.10
SWAPS	33,187	
Total Fixed Income	\$23,419,770	5.48

<sup>1</sup> All mortgage pass-through securities held by the RRS as of June 30, 2015 were issued by U.S. Government Agencies.

# Credit Quality and Exposure Levels of Nongovernment Guaranteed Securities

As of June 30, 2015

Investment Type	Credit Rating Level	Fair Value
U.S. Government Agencies		
FNMA	NR	3,165,845
FHLMC	NR	679,579
		3,845,424
Corporate Bonds and Notes	AAA	711,532
	AA1 - AA3	385,626
	A1 - A3	2,531,458
	BAA1 - BAA3	6,363,998
	BA1 - BA3	225,124
	B1 - B3	176,102
	Below B3	276,886
	NR	7,714,235
		18,384,960
Foreign Bonds and Notes	AA1 - AA3	49,992
	A1 - A3	450,270
	BAA - BAA3	468,537
	NR	40,485,223
		41,454,020
REITS	NA	3,012,309
	NR	2,187,225
		5,199,534
Hedge Funds	NR	69,751,058
Total		\$138,634,996

The RRS used Moody's ratings for this presentation. A large portion of the securities are not rated by Moody's but are rated by other agencies.

# **III. Litigation**

The RRS, including its Board of Trustees, officers and employees, is not involved in any ongoing claims or lawsuits that would have an adverse effect on the RRS's financial conditions.

# IV. Plan Description

The RRS was established by action of the Richmond City Council on February 1, 1945. The City Council appoints five members and the Mayor appoints two members of the Board of Trustees to administer the RRS. However, City Council retains the authority to establish or amend benefit provisions. The RRS is not subject to the provisions of the Employee Retirement Income Security Act of 1974.

The RRS is a single-employer Defined Benefit Plan. The RRS has one participating employer, the City of Richmond, including its component unit Richmond Behavioral Health Authority. The plan covers all full-time permanent employees, with the exception of those elected officials and persons eligible for membership in the Judicial Retirement System and the Virginia Retirement System. A majority of the employees of the School Board participate in the Virginia Retirement System (VRS), which offers both agent and cost sharing multiple-employer retirement plan options to Virginia localities and acts as a common investment and administrative agent for certain political subdivisions in the Commonwealth of Virginia. Members are vested after five years of creditable service or at their normal retirement age (age 65 for general employees; age 60 for public safety employees). The plan is contributory for employees.

# A) Summary of Benefit and Contribution Provisions

Outlined on the following pages are the principal features of the System reflected in the 2015 valuation.

## 1. Definitions:

## Average Final Compensation

The average annual creditable compensation of a member during the member's 36 consecutive months of creditable service in which such compensation was at its greatest amount or during the entire period of the member's creditable service, if less than three years.

## **Creditable Compensation**

The base compensation payable to an eligible employee working in a full-time position, plus shift differentials,

bonuses, severance pay and educational incentive pay but excluding overtime pay, imputed income under Section 79 of the Internal Revenue Service Code, and lump-sum payments for unused sick or vacation leave.

## **Creditable Service**

Total service as an employee, whether or not continuous, but excluding any separate periods of service less than nine months in duration and any periods of leave without pay unless otherwise required by law. Effective July 1, 1999, 50% of unused sick leave counts as creditable service at retirement for current employees. Vested members who terminated City employment between July 1, 1998 and June 30, 1999 received 25% of unused sick leave as creditable service.

#### Normal Retirement Date

The first day of the month following the sixtieth (60th) birthday of a sworn public safety employee or the sixty-fifth (65th) birthday of a general employee.

## 2. Retirement Plan Options:

#### a) Defined Benefit

The Defined Benefit Plan is closed to general employees hired on or after July 1, 2006. The plan is optional for senior executives and public safety officers.

The Defined Benefit Plan pays a monthly benefit at retirement based on the member's years of creditable service and average final compensation. General and public safety employees are required to pay contributions of 1% and 1.5% respectively, of their creditable compensation.

The Defined Benefit Plan formula has a multiplier of 1.75% for general employees and 1.65% for public safety employees. In addition, the formula includes a pre-65 supplement of 0.75%, up to a maximum of twenty-five (25) years for public safety employees.

The benefit level is set by formula, regardless of the retirement fund's investment performance. Participating employers contribute an amount each year that varies according to the contribution rate as determined by the RRS's actuary. The participating employers' contributions are invested by outside investment firms with the primary objective of ensuring the security, stability and continued growth of assets for members' future benefits.

The Code of the City of Richmond requires that the Plan be maintained on an actuarially sound basis.

#### b) Enhanced Defined Benefit

The Enhanced Defined Benefit Plan is closed to general employees hired on or after July 1, 2006. The plan is optional for senior executives and public safety officers.

The Enhanced Defined Benefit Plan option pays a monthly benefit at retirement based on the member's years of creditable service and average final compensation.

General employees are required to make contributions of 4.57% of their creditable compensation, and public safety employees are required to make contributions of 5.45% of their creditable compensation, until they terminate employment or retire in order to receive the benefits of the enhanced option.

For general members, the enhanced option formula has a multiplier of 2%.

For public safety employees, the enhanced option allows eligibility for an unreduced early service retirement upon the completion of twenty (20) years of creditable service, regardless of age.

The benefit level for the enhanced option is set by formula, regardless of the fund's investment performance. Participating employers contribute an amount each year that varies according to calculations by the actuary. The participating employers' contributions are invested by outside investment firms with the primary objective of ensuring the security, stability, and continued growth of assets for members' future benefits. The Code of the City of Richmond requires that the Plan be maintained on an actuarially sound basis.

#### 3. Deferred Retirement Option Program (DROP):

Effective October 1, 2003, the DROP was implemented for public safety employees eligible for an unreduced retirement allowance. Eligible members may elect to participate for a maximum of five years, deferring receipt of unreduced retirement benefits while continuing employment with the City without loss of any other employee benefits.

Upon a member's election to participate in the DROP, the amount of creditable service and the average final

compensation becomes frozen for purposes of determining pension benefits. The participant is considered retired for all purposes related to the System and does not accrue additional retirement benefits, except for annual benefit cost-of-living adjustments, if applicable.

The DROP participant's monthly pension is paid into a DROP account in lieu of being paid to the participant. Upon termination of employment, the participant will receive the DROP account balance and will begin receiving the monthly pension directly. The DROP account is not credited with investment gains and losses.

For the fiscal year ended June 30, 2015 the DROP liability is \$9,325,422.

# 4. Assets of System:

All of the Defined Benefit Plan funds and assets of the RRS are credited to a single retirement account. This account is credited with all income from the assets of the RRS, and all of the RRS's benefits are paid from this account.

## 5. Retirement Eligibility:

A member is eligible for normal retirement upon attaining their normal retirement date (general employees, age 65; public safety employees, age 60). Early retirement is permitted at any time within the ten-year period prior to the normal retirement date, provided the member has completed five or more years of creditable service or at any age with 30 years of creditable service (general employees) or 25 years of creditable service (public safety employees participating in the Defined Benefit Plan) or 20 years of creditable service (public safety employees participating in the Enhanced Defined Benefit plan).

# 6. Retirement Allowance:

Upon retirement, a member becomes eligible to receive an annual allowance, payable in equal monthly installments. The annual allowance is computed as follows:

## a) Normal Retirement Allowance:

General Employees: 1.75% (2% Enhanced option) of the member's average final compensation, multiplied by the number of years of creditable service up to 35 years.

Public Safety Employees: 1.65% of the member's average final compensation, multiplied by the number of

years of creditable service up to 35 years. In addition, a supplement of 0.75% of the member's average final compensation, multiplied by the number of years of creditable service up to 25 years is payable from retirement until age 65.

# b) Early Retirement Allowance:

If a member retires prior to their normal retirement age, the allowance is determined as described in letter a). For general employees, the benefit is reduced by 5/12 of 1% for each complete month by which retirement precedes the earlier of age 65 or the date on which the employee would have completed 30 years of service had the member remained employed. For public safety employees, the benefit is reduced by 5/12 of 1% for each complete month by which retirement precedes either age 60 or the date on which the employee would have completed 25 years of service had the member remained in service in the Defined Benefit Plan, whichever is earlier.

# c) Workers' Compensation Offset:

In no instance may a member who receives both (a) a compensation award pursuant to the Virginia Workers' Compensation Act, and (b) a retirement allowance before the attainment of age 65 from the RRS, receive a benefit which would cause the sum of the Workers' Compensation award and retirement allowance to exceed the member's average final compensation at the time the member separated from active service. After attainment of age 65, the member shall be entitled to the full retirement allowance.

If a member in receipt of a retirement allowance elects to receive a lump-sum settlement in lieu of periodic payments for disability under the Virginia Workers' Compensation Act, the member's service retirement allowance shall continue to be reduced in the same amount required by Section 78-206(5) for the number of months equivalent to the lump-sum award amount divided by the amount of the original Workers' Compensation award.

# 7. Retirement Benefit Payment Options:

The member may elect, with the approval of the Board, one of the following options, in which case the amount

payable is the actuarial equivalent of the Basic Benefit otherwise payable.

# a) Joint and Survivor Option:

A reduced allowance is payable to the member during their lifetime; with the same amount or a designated fraction thereof continued after the member's death to a designated contingent beneficiary, if living.

# b) Pop-Up Joint and Survivor Option:

A reduced allowance is payable to the member during their lifetime; with the same amount or a designated fraction thereof continued after the member's death to a designated contingent beneficiary, if living. If the designated contingent beneficiary predeceases the member, the allowance is increased to the amount that would have been payable in the absence of the election of an optional form of benefit.

# c) Smooth-Out Option:

An increased retirement allowance is paid prior to age 65 and a decreased retirement allowance thereafter. The purpose of this option is to provide for a more nearly level total retirement income before and after age 65, taking into account the primary federal Social Security benefits.

# d) Level Option:

A reduced allowance is paid prior to age 65 and an increased retirement allowance thereafter. The allowance remains level for the lifetime of the member. This option is available to current public safety employees and to former vested general employees who terminated service prior to March 1, 1997.

## 8. Disability Retirement Eligibility:

Any member in service who has 5 or more years of creditable service may retire, or may be retired by the member's appointing authority, at any time prior to the member's normal retirement date on account of permanent disability, provided that the medical examiners certify that the member has been completely incapacitated by reason of sickness or injury from performing the duties required by the participating employers, and provided further that if the disability is service connected (i.e., if it arises from a cause that would be compensable under the Virginia Workers' Compensation Act), the five-year service requirement does not apply. The service requirement is also waived for public safety employees if the disability arises from respiratory or heart disease or from hypertension, unless it is certified that such disability was not suffered in the line of duty.

# 9. Disability Retirement Allowance:

## a) Non-Service Connected Disability:

The annual allowance, payable monthly, is computed in the same way as a normal retirement allowance prior to the changes effective March 1, 1997, with the following modifications: "Disability Average Compensation" is used in place of Average Final Compensation. In essence, this is the annual rate of compensation in effect at the date of disability, graded into average final compensation for members who become disabled within three years of their normal retirement date. Creditable Service is replaced by "Disability Credited Service," which is the smaller of: i. The number of years of creditable service the member would have completed at age 60 if the member had remained in service until that time, or ii. The larger of: a. 20 years, or b. Twice the member's actual years of creditable service except that if the disability occurs after age 60, disability credited service is equal to the number of years of creditable service. A deduction for Social Security is made prior to age 65 if the member is entitled to total and permanent disability benefits under Social Security. The early service reduction factor of 5/12 of 1% per month early retirement reduction is not imposed. The additional pre-age 65 allowance for public safety employees is not payable.

In no instance may a member who receives a compensation award pursuant to the Virginia Workers' Compensation Act and a non-service connected disability retirement allowance from the City receive a benefit which would cause the sum of the disability retirement allowance and Workers' Compensation award to exceed the member's average final compensation at the time the non service connected disability caused separation from active service.

# b) Service Connected Disability:

The annual allowance payable monthly, is computed in the same way as a normal retirement allowance prior to the changes effective March 1,1997, with the following modifications: The disability retirement allowance is computed as 2/3 of the member's disability average compensation. This allowance shall be reduced dollar for dollar by the amount of compensation, if any, awarded to the member under the Virginia Workers' Compensation Act for as long as such compensation is payable. If any member who retired on or after July 1, 1989, elects to receive a lump-sum settlement in lieu of periodic payments for disability under the Virginia Workers' Compensation Act, the member's retirement allowance shall continue to be reduced in the same amount and for the number of months equivalent to the lump-sum award divided by the amount of the original Workers' Compensation award. A deduction for Social Security is made prior to age 65 if the member is entitled to total and permanent disability benefits under Social Security. The early service reduction factor of 5/12 of 1% per month early retirement reduction is not imposed. The additional pre-age 65 allowance for public safety employees is not payable.

#### 10. Withdrawal of Benefits:

If termination occurs after five years of service, a member is entitled to a retirement allowance commencing on the member's earliest retirement date or later, based on the years of creditable service and average final compensation as of the member's termination date. If benefit payments commence prior to the member's normal retirement date, benefits are reduced by 5/12 of 1% for each complete month by which retirement precedes the normal retirement date.

## 11. Death Benefits Before Retirement:

If a member who became an employee of the participating employer on or before June 13, 1988 and has one or more years of creditable service dies before retirement, a death benefit is payable equal to \$16.67 multiplied by the number of months of creditable service of the member, subject to a maximum of \$1,000.

If a member who is eligible for an early or normal retirement dies prior to actual retirement and no benefit of the type described in the paragraph below is payable, the surviving spouse is entitled to receive an allowance for life equal to that amount which would have been paid if the full Joint and Survivor Option had been in effect at the time of the member's death. The additional allowance paid from retirement to age 65 to public safety employees is not included in this benefit.

If a member dies at any time before retirement from a cause that would be compensable under the Virginia Workers' Compensation Act, an allowance is payable to the surviving spouse or to the member's children under the age of 18 equal to that which would have been payable if the full Joint and Survivor Option had been in effect at the time of the member's death. The allowance is calculated by projecting creditable service to that which the member would have earned had they remained in service until age 65 with the same final average compensation in effect at the time of their death. The benefit is reduced by any compensation awarded under the Virginia Worker's Compensation Act.

## 12. Death Benefits After Retirement:

The beneficiary of a retired member with at least one year of creditable service will receive, at the member's death, a death benefit of \$16.67 multiplied by the number of months of creditable service of the member, subject to a maximum of \$1,000.

An allowance for life, as described in the preceding paragraphs, is also payable to the widow or widower of a member who retired for disability after attaining early retirement age but dies before reaching normal retirement age. In this case, the member's average final compensation as of the disability retirement date is used, but it is assumed the member's service continued to the last day of the month in which the member died.

# 13. Ad Hoc Cost-of-Living Allowances (COLA):

Retirement allowances are periodically supplemented to reflect increases in the Consumer Price Index. The amounts of future COLAs are determined by action of City Council. Any such COLAs are subject to the same conditions of payment as the regular allowances.

# 14. City Council Benefits:

Effective July 1, 1991, any member of City Council serving 10 or more years on City Council shall be entitled to a retirement benefit under the RRS. The amount of the benefit is 50% of final compensation, payable at age 65. Early retirement is allowed at age 62, with benefits reduced 5% per year prior to the earlier of age 65 or the age that the City Council member would have had 15 years of creditable service. This provision was repealed for active members of City Council effective February 2, 1996.

## 15. Benefits for City Officials and Department Heads:

Effective March 1, 1997, certain City of Richmond officials and department heads can make additional contributions to the RRS in order to receive two years of credit for each year of service in a covered position (up to a maximum of 15 additional years).

# 16. Purchase of Prior Service:

Any Defined Benefit Plan member in service who has completed 5 or more years of creditable service may purchase credit for service for all or part of: (1) certified creditable service in the retirement system of another state or of a political subdivision, and (2) any period of full-time service rendered to a participating employer on a temporary, seasonal, provisional, Comprehensive Employment Training Act (CETA) or contractual basis, provided that such period has not been previously included in the creditable service. Service purchased under this section shall not be considered in determining eligibility for an unreduced early retirement, if the member's retirement is within 5 years of the date of purchase of service credit.

# 17. Portability:

Effective April 1, 1999, the RRS entered into a reciprocal agreement with the Virginia Retirement System (VRS) that allows vested members to transfer the value of their retirement benefits between VRS and the RRS. Effective May 1, 2001 and August 30, 2007 the RRS also entered into reciprocal agreements with the Newport News Employee Retirement Fund (NNERF) and the Norfolk Employee Retirement System (NERS), respectively. System members must have a vested benefit with VRS, NNERF, or NERS. VRS, NNERF, and NERS members must have deferred vested benefits with their System. The election period is eighteen (18) months from the date of eligibility.

# V. Contributions Required and Contributions Made

For the fiscal year ended on or before June 30, 2015, employer contributions to the RRS are based on a percentage of the creditable compensation of the active members. This percentage is calculated annually by the RRS's actuary using the Projected Unit Credit method. Beginning with the fiscal year ending June 30, 2016, the Entry Age Normal Actuarial Cost Method will be used in determining employer contribution rates. The annual contribution percentages include amortization of the unfunded actuarial liability.

The Code requires that contributions to the RRS consist of a normal contribution plus an accrued liability contribution, which, combined, equal the actuarially determined contribution.

Contributions totaling \$49.0 million, including \$2.3 million in member contributions, were made from July 1, 2014 to June 30, 2015 in accordance with the actuarially determined contribution requirements stated above.

# **Funding Policy**

The Richmond City Code of 1993, as amended, requires the City to contribute to the RRS, annually, an amount as determined by the actuary, expressed as a percentage of payroll, equal to the sum of the "normal contribution" and the "actuarial liability contribution."

The actuarial liability contribution is determined as that amount necessary to amortize the unfunded actuarial liability and any increase or decrease in the unfunded actuarial liability in future years due to changes in actuarial assumptions, changes in RRS provisions, including the granting of COLA increases, or actuarial gains or losses over a closed period not to exceed 30 years, with payments increasing up to 4% per year.

# Net Pension Liability of the City

The components of the net pension liability of the City at June 30, 2015 were as follows (dollars in thousands):

Total pension liability	\$850,911
Plan fiduciary net position	(540,061)
City's net pension liability	\$310,850
Plan fiduciary net position as a percentage of the total pension liability	63.5%

# Actuarial Assumptions

The July 1, 2014 valuation developed contribution rates for the fiscal year ending June 30, 2016, using the Entry Age Normal Actuarial Cost Method. The actuarial method used to determine net pension liability for FY15 is the Entry Age Normal Actuarial Cost Method.

The amortization method used for general employees is a level dollar method over a closed period not to exceed 30 years. The amortization method used for police and fire employees is a level percent of pay method over a closed period not to exceed 30 years.

For purposes of determining contribution rates, the difference between actual investment earnings and expected investment earnings is recognized over a five-year period, with the restriction that the actuarial asset value cannot be less than 90% or more than 110% of market value. This smoothing method is utilized in order to smooth the impact of short term market fluctuations on the RRS's contribution rates and funded status.

For the purposes of determining net pension liability fair value of investments was used.

Significant actuarial assumptions used in determining the actuarial liability include: (a) A 7.5% investment, rate of return was assumed, as was a 3.0% payroll growth rate attributable to inflation. No cost-of-living adjustment was assumed; (b) Projected salary increases were 3.0% to 4.0% for general employees and 3.0% to 4.5% for police and fire employees; (c) The assumption that benefits will not increase after retirement.

See Schedule of Changes in Employer's Net Pension Liability on page 38.

# Long-Term Expected Rate of Return

The long-term expected rate of return on RRS investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2015 are summarized in the table below.

Asset Class	30 Year 2015 NEPC Assumptions – Arithmetic Return	Target Allocation
Large Cap Equities	8.83%	18.0%
SMID Cap Equities	9.64%	5.0%
Developed Intl Equities	9.89%	8.0%
Emerging Intl Equities	12.05%	7.0%
Hedge Funds	7.11%	12.0%
Private Equity	12.50%	8.0%
Core Plus Bonds	4.74%	0.0%
High Yields Bonds	6.51%	0.0%
Global Bonds	2.63%	0.0%
Inflation Linked Bonds	4.26%	0.0%
Emerging Market Debt (external)	6.65%	0.0%
Global Multi-Sector Fixed Incom	e 5.03%	22.5%
Opportunistic Fixed Income	5.58%	5.0%
Private Debt	9.26%	8.0%
Real Estate (core)	7.50%	5.0%
Cash	3.25%	1.5%

## **Discount Rate**

The discount rate used to measure the total pension liability was 7.50 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that City contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

# Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the City, calculated using the discount rate of 7.50 percent, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50 percent) or 1-percentage-point higher (8.50 percent) than the current rate:

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
City's net pension liability	\$390,863,757	\$310,850,580	\$241,878,985

# System Termination

In the event the system is terminated, the net position of the RRS will be allocated generally to provide the following benefits in the order indicated: (a) For the benefit of the then existing beneficiaries and persons already designated by former members who are then beneficiaries under one of the options provided for in the RRS, to the extent of the actuarial value of their retirement allowances. If any funds remain, then: (b) For the benefit of members and persons, if any, designated by the members under one of the options provided for in the RRS, to the extent not provided under the preceding paragraph (a) of the actuarial value of their accrued retirement allowances, based on years of creditable service and average final compensation as of the date of termination of the pension plan. The allocation under this paragraph (b) shall be on the basis of the "oldest ages first" method.

The Richmond City Code of 1993, as amended, states: "In the event the assets at such date of repeal are insufficient to provide all the benefits of preceding paragraph (a), then the employer will contribute to the assets from time to time, as and when required, the amount necessary to make up such insufficiency."

The Code of Virginia of 1950, as amended, requires that "on or before July 1, 1977, every county, city, and every town, having a population of five thousand or

more, shall provide a retirement system for those officers and employees eligible for coverage under Section 51-111.31(a) of the State Code." The City of Richmond is included in this provision.

Participants are not guaranteed any benefits by the Pension Benefit Guaranty Corporation because this is a public pension trust.

# Legislative Changes

There were no legislative changes during the fiscal year ended June 30, 2015, which had a financial impact on the System.



# Required Supplementary Information

Financial Section, continued

#### In this section:

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios Schedule of Employer's Contributions Notes to the Schedules Schedule of Investment Returns

## Schedule of Changes in the Employer's Net Pension Liability and Related Ratios\*

<b>Total Pension Liability</b> (Dollars in Thousands)	2015	2014
Service Cost	\$9,472	\$10,649
Interest	61,557	62,395
Changes of Benefit Terms	0	8,706
Differences Between Expected And Actual Experience	(6,134)	1,652
Changes of Assumptions	0	(26,785)
Benefit Payments, Including Refunds of Member Contributions	(68,268)	(67,321)
Net Change in Total Pension Liability	(3,373)	(10,704)
Total Pension Liability — Beginning	854,284	864,988
Total Pension Liability — Ending (a)	\$850,911	\$854,284
Plan Fiduciary Net Position		
Contributions — Employer	\$46,685	\$42,343
Contributions — Member	2,347	2,118
Net Investment Income	15,641	76,463
Benefit Payments, Including Refunds of Member Contributions	(68,268)	(67,321)
Administrative Expense	(1,248)	(1,318)
Net Change in Plan Fiduciary Net Position	(4,843)	52,285
Plan Fiduciary Net Position — Beginning	544,904	492,619
Plan Fiduciary Net Position — Ending (b)	540,061	544,904
Employer's Net Pension Liability — Ending (a) - (b)	\$310,850	\$309,380
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	63.5%	63.8%
Covered-Employee Payroll	\$111,738	\$110,748
Employer's Net Pension Liability as a Percentage of Covered-Employee Payroll	278.2%	279.4%
*See Notes to the Schedules on page 39.		

\*See Notes to the Schedules on page 39.

## Schedule of Employer's Contributions\*

	2015	2014
Actuarially Determined Contribution	\$46,685	\$42,343
Contributions in Relation to the Actuarially Determined Contribution	46,685	42,343
Contribution Deficiency (Excess)		
Covered-Employee Payroll	\$111,738	\$110,748
Contributions as a Percentage of Covered Employee Payroll	41.78%	38.23%

\*See Notes to the Schedules on the following page.

## Notes to the Schedules

### Valuation Date

Actuarially determined contribution rates are calculated as of July 1 two years prior to the end of the fiscal year in which contributions are reported.

### Methods and Assumptions Used to Determine Contribution Rates

	2015
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level percent of pay over a closed period not to exceed 30 years for police and fire employees; level dollar amount over a closed period not to exceed 30 years for general members.
Remaining Amortization Period	20 years for remaining unfunded accrued liability as of July 1, 2006; 20 years for subsequent changes.
Asset Valuation Method	Five-year spread of actual over expected investment earnings with the restriction that the resulting value must be within 90%-110% of market value.
Inflation	3.00%
Salary Increases – General Employees	3.00% to 4.00%
Salary Increases – Police and Fire Employees	3.00% to 4.50%
Investment Rate of Return	7.50%
Retirement Age – General Employees	20% in first year of unreduced retirement eligibility; 3% at age 55 increasing to 100% at age 75
Retirement Age – Police and Fire Employees	40% in first year of unreduced retirement eligibility; 9% at age 50 increasing to 100% at age 64
Mortality – General Employees	RP-2000 Mortality Table with 2 year set-forward for Males
Mortality – Police and Fire Employees	RP-2000 Mortality Table

## Schedule of Investment Returns\*

	2015	2014
Annual Money-Weighted Rate of Return, Net of Investment Expense	2.4%	15.5%

\*Annual money-weighted rate of return is calculated net of all investment management expenses and additional plan investment related expenses that are reported by the plan's custodian and/or were provided to NEPC by the RRS. The methodology used to determine the money weighted rate of return is different from the calculation of the fiscal year rate of return (which was 2.4% net of fees). Cash flows have a larger impact on the money-weighted rate of return than the fiscal year rate of return, which uses a time-weighted calculation.

Oculus on the dome of the State Capitol of Virginia

# Supporting Schedules

Financial Section, continued

#### In this section:

Schedule of Administrative Expenses Schedule of Investment Expenses Schedule of Payments to Investment Consultant Schedule of Retirement Benefit Payments

### **Schedule of Administrative Expenses**

Year Ended June 30, 2015

#### **Personnel Services**

Payroll Expenses	\$959,115
Total Personnel Services	959,115

#### **Professional Services**

Total Professional Services	207,489
Medical Examiners	10,071
Audit	30,880
Legal Services	91,687
Actuarial	74,851

#### Communications

Printing & Publications	7,414
Telephone & Postage	13,233
Total Communications	20,647

#### Miscellaneous

Total Miscellaneous Total Administrative Expenses	<u>60,911</u> \$1,248,162
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Other	10,758
Conferences	23,711
Recruitment	6,969
Supplies	8,423
Stipends to Board Members	11,050



#### **Schedule of Investment Expenses**

Year Ended June 30, 2015

#### **Investment Managers:**

Total Custodial Expenses

LSV Asset Management	\$207,843
Loomis, Sayles & Co. (High Yield)	169,366
Loomis, Sayles & Co. (Large Cap)	150,027
Stone Harbor Investment Partners	115,674
Chartwell Investment Partners (Mid Cap)	96,185
Chartwell Investment Partners (Small Cap)	93,397
CenterSquare Investment Management	39,789
Hughes Capital	8,554
Commingled Funds:	
JP Morgan Asset Management	240,392
Brandywine Global Investment Management, LLC	231,881
Acadian Asset Management	192,516
Westwood	184,592
Axiom International Investors LLC	66,000
Loomis, Sayles & Co. (Opportunistic High Yield)	55,902
State Street Global Advisors	17,184
Total Investment Managers Expenses*	\$1,869,302
Investment Custodian	
State Street Corporation	\$258,722

\*Mutual fund and limited partnership fees are not reflected in this schedule; instead, these investment expenses are netted against investment income in the statement of changes of Plan net position to arrive at a net investment income amount.

\$258,722

#### Schedule of Payments to Investment Consultant

Year Ended June 30, 2015

Investment Consultant:	
New England Pension Consultants	\$292,320
Total Consultant Expenses:	\$292,320

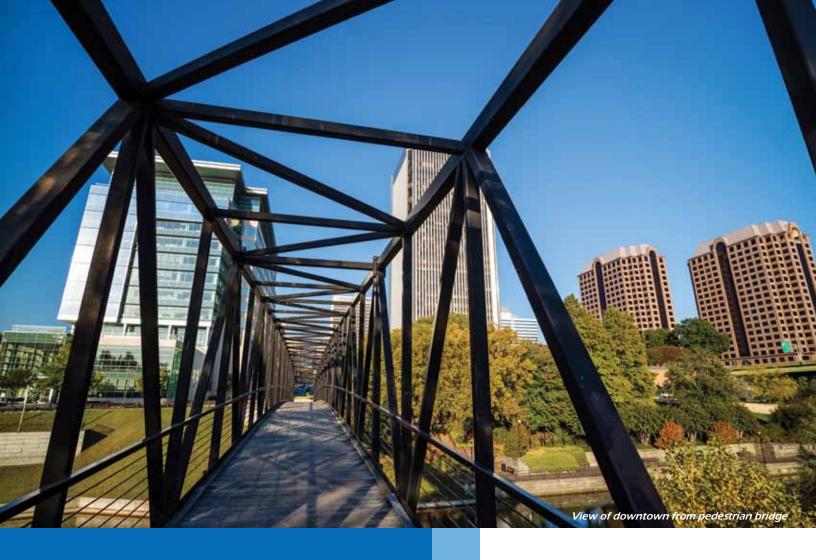
During the fiscal year ended June 30, 2015, the RRS did not direct any soft dollar transactions.

#### **Schedule of Retirement Benefit Payments**

Year Ended June 30, 2015

#### **Benefit Payments:**

Total Benefits Payments	\$68,268,268
DROP Expense	3,543,920
Refund of Contributions	127,818
Death Benefits	122,859
Survivor Pension	2,127,386
Disability Pension	4,724,073
Regular Pension	\$57,622,212



# **Investment Section**

The Investment Section provides detailed information regarding the performance of the investment pool. This information includes asset allocation, investment management fees and expenses, and an investment summary.

#### In this section:

Investment Consultant Report Investment Policy Schedule of Investment Results Asset Allocation Ten Largest Equity and Fixed Income Holdings Schedule of Fees Schedule of Brokerage Commissions Investment Summary

## Investment Consultant Report



**Kevin M. Leonard** Partner

September 15, 2015

Board of Trustees **Richmond Retirement System** 730 East Broad Street, Suite 900 Richmond, VA 23219 RE: Fiscal Year End 2015

Dear Trustees,

NEPC, LLC currently serves as the pension consultant for the Richmond Retirement System (RRS). In our role as the pension consultant, we assist the Board in several manners: determining and executing the overall asset allocation strategy of the Plan, drafting of the investment policy of the Plan (and amendment of when necessary), conducting investment manager searches (both traditional and alternative asset classes); conducting custodial services searches, providing ongoing performance evaluation to each individual investment manager, to each asset class composite, and for the overall investment portfolio as a whole, and providing pertinent education to the Board.

The overall objective of the RRS is to provide service, disability, death and vested retirement benefits, and other postemployment benefits to members and their beneficiaries. To ensure a solid foundation for the future of the System, RRS has implemented an investment program designed to achieve the actuarial assumed rate of return of the long term, while prudently managing the risk of the portfolio.

Although investment manager performance is key in the future "success" of the Plan, the overall asset allocation policy will be the primary determinant of such "success." Modern portfolio theory maintains that long term investors, who assume prudent levels of risk, will be rewarded with incremental returns above lower returning and risk free assets (i.e. T-Bills). The pension fund, in its asset allocation policy, is required to satisfy the need to pay accumulated/ earned retirement benefits today, while at the same time be prepared for "uncertain" future benefits. This balancing of short-term needs versus long-term needs is a key tenant in the overall construction of the portfolio known as the generation of income versus appreciation of assets. To facilitate this demand balance of short term versus long term, the Board has adopted a diversified asset allocation structure that is primarily weighted in equity-like asset classes, such as U.S. equities, non-U.S. equities, and alternative investments, which seek return with offsetting investments in fixed income-like asset classes which provide current income and/or stability. Diversification aims to reduce volatility and better equalize the contribution to an overall plan's risk across a variety of asset classes with unrelated return

continued on next page

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patterns. Our goal is to diversify the System's assets within the traditional and non-traditional asset classes to reduce volatility, achieve above market returns, and to better protect the portfolio against difficult market conditions.

The Board continues to work diligently on restructuring and expanding the alternative investment program, which will further assist in the diversification of the portfolio. Asset classes such as hedge funds are designed to lower the overall volatility of the program, while private equity is designed to provide higher long term performance above what is expected from traditional equity markets. As the allocation strategy evolves year after year, diversification and risk mitigation will continue to be the pillars of the asset allocation structure.

During fiscal year 2015, as well as working on the continued build out of the alternative portfolio, the Investment Committee undertook a complete restructuring of the fixed income portfolio. This resulted in the consolidation of the traditional fixed income portfolio and the build out of an opportunistic fixed income portfolio. This restructuring brings much more flexibility to the portfolio, as well as diversifying alpha sources during periods of volatile interest rate movements.

NEPC provides RRS with quarterly economic and investment market updates and performance reviews, investment manager monitoring and selection advice, and related investment services for traditional and non-traditional asset classes. Investment performance analysis and comparisons produced by NEPC have been calculated using standard performance evaluation methodologies and are consistent with industry standards. Performance results are calculated using a time-weighted return methodology. The Board's goal of achieving market rates of returns, while mitigating unwarranted risk, is measured against appropriate benchmarks and comparative universes on a quarterly basis. Performance is measured on a most recent quarter, year-to-date, and accumulated trailing annual periods, as well as three and five year periods (full market cycle). Risk-adjusted performance on an absolute basis and a comparative basis is also measured. This review process allows the Board to evaluate and determine whether established goals and objective are being achieved.

#### **RRS Fiscal Year Performance**

- For the fiscal-year-ending June 30, 2015, the RRS Total Fund returned 3.3% on a gross-of-fees basis (2.7% on a net-of-fees basis).
- For the trailing three-year-period ending June 30, 2015, the RRS Total Fund returned 10.5% on a gross-of-fees basis (10.0% on a net-of-fees basis).
- For the trailing ten-year-period ending June 30, 2015, the RRS Total Fund returned 7.1% on a gross-of-fees basis (6.6% on a net-of-fees basis).

Relative to peer group comparison of other Public Funds (InvestorForce Public Fund Universe):

• For the fiscal-year-ending June 30, 2015 the gross return of 3.3% ranked the RRS in the 48th percentile (1% being the highest, 100% being the lowest), outpacing 52% of other public funds within the universe.

continued on next page

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- For the trailing three-year-period ending June 30, 2015, the gross return of 10.5% ranked RRS in the 43rd percentile (1% being the highest, 100% being the lowest), outpacing 57% of other public funds within the universe.
- For the trailing ten-year-period ending June 30, 2015, the gross return of 7.1% ranked RRS in the 18th percentile (1% being the highest, 100% being the lowest), outpacing 82% of other public funds within the universe.

#### Fiscal Year 2015 Market Review

If 2013 was the year to own equities, and 2014 was the year to have balance, then 2015 has been defined as the year of moderation so far. U.S. equity markets continued to move higher, while bond markets produced modest returns. On the international side, non-U.S. equities edged lower as the U.S. dollar grew strong and commodity market turmoil heightened, though this trend has begun to turn in calendar year 2015.

The U.S. economy appeared to exhibit continued resilience in the face of global market conditions and geo-political events. Based on more consistent economic news for the US, domestic equities topped off another positive year, yields on fixed income securities narrowed, the economy grew at a moderately-healthy pace and unemployment receded further. The broad domestic equity market, as measured by the S&P 500 Index, posted its tenth consecutive quarterly gain, capping off the fiscal year with a +7.4% return. The domestic bond market, as measured by the Barclays Aggregate Bond Index, returned +1.9% over the same period. The global equity market, as measured by the MSCI World Index, returned -0.4% for the fiscal year, reflecting a blend of the positive results in the U.S. and the negative performance in the non-U.S. developed markets (MSCI EAFE down -4.2% for the trailing year) and emerging markets (MSCI EM down -5.1%).

NEPC, LLC appreciates the opportunity to serve as your consultant. It is a pleasure to work with the RRS and we look forward to continuing our relationship for the benefit of the Board, staff, and most importantly, the members of the System.

Sincerely,

255 State Street | Boston, MA 02109 | TEL: 617.374.1300 | www.nepc.com BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

## Investment Policy

### Introduction

The purpose of this Investment Policy Statement (IPS) is to assist the Board of Trustees in effectively supervising, monitoring and evaluating the investment of RRS Fund assets.

The intent of the Board is to ensure compliance by the investment managers with all legal, fiduciary, prudence, and due-diligence requirements that experienced investment professionals strive to achieve. The Board also intends that the Fund will comply with all applicable laws, rules, and regulations from various local, state, and federal entities that may have an impact on Fund assets.

### Statement of Goals and Objectives

Investments will be made for the sole interest of the participants and beneficiaries of the Fund. Accordingly, the assets of the Fund shall be invested in accordance with these objectives:

- 1. To ensure funds are available to meet current and future obligations of the plan when due.
- 2. To earn an investment return greater than the actuarial return assumption of 7.5%.
- 3. To assure the Fund's fiscal health and maintain the amortized unfunded liability of the Fund below twenty (20) years.

### Rate of Return Objective

### Time Horizon

The Board acknowledges that fluctuating rates of return characterize the securities markets, particularly during short-term time periods.

Recognizing that short-term fluctuations may cause variations in the total portfolio's performance, the Board requires each investment manager to develop long-term investment strategies consistent with the guidelines contained in this IPS. A minimum of a five-year moving time period reflects the emphasis on the long term. However, this five-year moving average shall not be the sole determinant of any decision.

### Performance Objectives

The Board has determined that it is in the best interest of the Fund that performance objectives be established for the total portfolio and each investment manager. It is clearly understood that these objectives are to be viewed over the long term and have been established after full consideration of all factors set forth in this Investment Policy Statement. The Board acknowledges that investment styles come in and go out of favor depending on economic and capital-market conditions. Accordingly, the Board has established style group comparisons as shorter-term performance objectives to be applied over a minimum of rolling three-year time periods.

### Performance Measurement Guidelines

The Board acknowledges that the ongoing review of money managers is just as important as the due diligence during the selection process. Accordingly, the Board has deemed it appropriate to include "objective standards" as part of the information that may be required to make future decisions to terminate contractual relationships. The Board always has the right to terminate contractual relationships in accordance with its Investment Management Agreement.

### Asset-Allocation Guidelines

The overall capital structure targets and permissible ranges for eligible asset classes are detailed in the asset allocation schedule located in the Financial Section.

The Board establishes asset-allocation policies to reflect, and be consistent with, the investment objectives expressed in this IPS. These policies, developed after examining the historical relationships of risk and return among asset classes, are designed to provide the greatest probability of meeting or exceeding the Fund's return objectives at the lowest possible risk.

The Board considered the risk, reward and volatility of securities markets in establishing the risk tolerance for the Fund. The Board also reviewed the long-term characteristics of various asset classes, focusing on balancing risk with expected return.

### Rebalancing of Asset-Allocation Guidelines

One essential component of a strategic asset-allocation policy is the development and use of rebalancing ranges for the target allocation.

The actual allocation will be rebalanced based upon "trigger point" rebalancing. If, on a quarterly basis, the upper or lower limit is breached the asset class will be reviewed and rebalanced back to the strategic allocation. On an annual basis, targets will be reviewed and asset classes rebalanced back to the long-term strategic target allocation weights. The Board will consider market conditions and transaction costs, as well as any other relevant factors when rebalancing.

### **Investment Manager Guidelines**

Full discretion, within the parameters of the guidelines described herein, is granted to the investment managers regarding the selection of securities, and the timing of transactions.

Compliance with all guidelines must be monitored by the investment managers on a regular basis (monthly or more frequently when market conditions warrant) and based on then current market values. Securities that, at purchase, would move the portfolio out of compliance with these guidelines, based on the investment manager's most recent valuation, may not be purchased.

In the event that a portfolio moves out of compliance with these guidelines (as identified in the investment manager's regular review of the portfolio), through market conditions or other changes outside the control of the manager, the manager must bring the portfolio composition back into compliance within 45 days or make a written request to the Board for a compliance waiver.

### General Guidelines

For managers not participating in an Alternative Investments or Real Estate program, the following guidelines are to be adhered to, unless prior approval from the Board has been granted:

- There shall be no use of options or commodities without the prior approval of the Board;
- Uncovered options or futures contracts may not be purchased;
- Uncovered short positions may not be purchased;
- Short selling is not permitted; and
- There shall be no use of financial leverage.

For all investment managers across all asset classes, trades must be done on a "best-execution" basis.

### Mutual/Commingled Funds

Mutual funds and other types of commingled investment vehicles provide, under some circumstances, lower costs and better diversification than can be obtained with a separately managed fund pursuing the same investment objectives. However, commingled investment funds cannot customize investment policies and guidelines to the specific needs of individual clients. The Board is willing to accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled funds. Therefore, commingled investment vehicles are exempt from the policies and restrictions specified herein if the Board determines that:

- The investment practices of the commingled fund are consistent with the spirit of this IPS, and are not significantly different in letter; and
- The benefits of using a commingled vehicle rather than a separate account are material.

### **Derivatives Guidelines**

This derivatives policy statement identifies and allows common derivative investments and strategies which are consistent with applicable law and the IPS and requires investment managers to petition for the inclusion of additional derivative instruments and strategies. These guidelines also require investment managers to follow certain controls, documentation and risk management procedures. For managers not participating in an Alternative Investments or Real Estate program, the following derivative guidelines are to be adhered to, unless prior approval from the Board has been granted.

### Allowed Use of Derivatives:

- Hedging
- Creation of Market Exposures
- Management of Country and Asset Allocation Exposure

#### Prohibited Uses of Derivatives:

Any use of derivatives not listed above is prohibited without written approval of the Board. By way of amplification, it is noted that the following uses of derivatives are prohibited unless permission is specifically granted:

- Leverage
- Unrelated Speculation

### **Proxy Voting**

Investment managers have responsibility for voting corporate proxies. The Board expects the Managers to comply with ERISA and Department of Labor guidelines with respect to the voting of proxies for issuers of securities in the Fund. The managers will advise the Board annually how such proxies have been voted.

### Investment Manager Reporting Requirements

Each investment manager is required to provide the Board and its Investment Consultant with periodic investment information as required by their respective Investment Management Agreement. Generally these are as follows:

## Ouarterly (due no later than the 21st calendar day following quarter end)

1. Time-weighted rates of return for the quarter, YTD, and since inception.

- 2. Performance commentary that attributes both good and bad elements of quarterly performance to the sources of return.
- 3. Strategy statement that describes the portfolio strategies currently in place and the manager's reasons for implementing them.

## Monthly (due no later than the 8th business day following month end)

- 1. Asset listings that contain descriptions of all securities held in the portfolio.
- 2. Time-weighted rate of return for the month.

## Event-Driven (due no later than the first business day following the event)

Organizational developments that address any changes to the manager's organization, investment philosophy, decision-making process, financial condition, ownership, or professional staff.

### Board and Investment Committee Meetings

Investment managers may be invited to make presentations at Board or Investment Committee meetings. The agenda for such meetings usually will consist of the following:

- 1. Review of investment manager's strategies and objectives, investment style, and compliance to guidelines that apply to management of portfolio.
- 2. Discussion of investment performance and risk current quarter, YTD, and since inception, in relation to a mutually agreed upon market index. Discussion of investment strategies that have helped and hurt performance.
- 3. Discussion of recent and material developments at investment manager's organization such as ownership, organizational structure, financial condition, outstanding litigation, investment philosophy and investment decision-making process, professional staff, and clientservicing program.

## Investment Consultant Reporting Requirements

The investment consultant is required to provide the Board with periodic investment information for portfolio monitoring purposes. Generally these are as follows:

#### Quarterly (due in advance of the Meeting)

- 1. A review of the current investment market environment.
- 2. The Fund's actual asset allocation relative to its target asset allocation.
- 3. The Fund's return relative to its policy portfolio return and other public pension funds.
- 4. The Fund's risk adjusted returns relative to the policy portfolio and other public pension funds.
- 5. Individual asset class performance relative to the benchmark.
- 6. Individual investment manager returns relative to their stated benchmark.
- 7. Any reportable events affecting any of the Fund's investment managers.

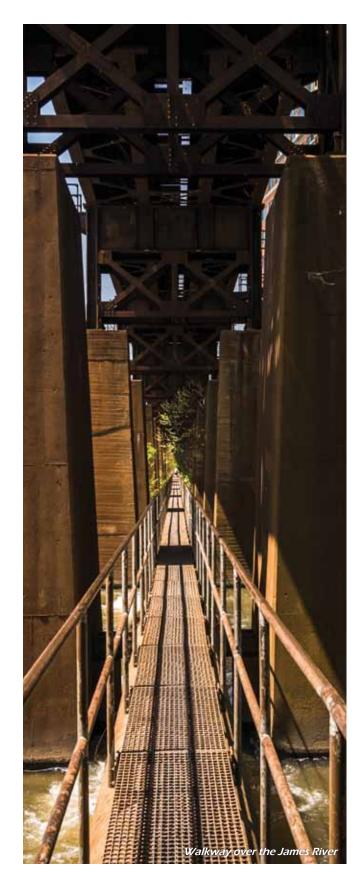
## Event-Driven (due no later than the first business day following the event)

Organizational developments that address any changes to the consultant's organization or changes to the assigned consulting team.

### **Review Procedures**

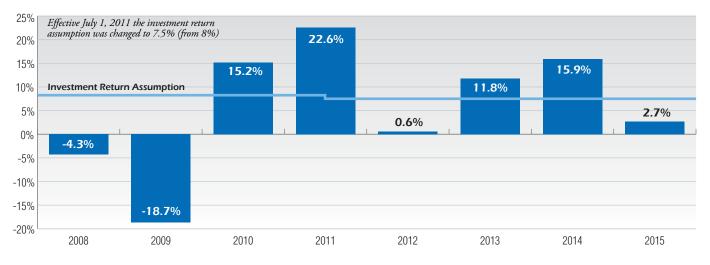
In the event an investment manager believes at any time that changes, additions, or deletions to this Investment Policy Statement are advisable, they will communicate such recommendations to the Board in writing.

The Board and its Investment Consultant customarily make a formal review of this IPS annually. Any modifications to this Investment Policy Statement made by the Board will be provided to the investment managers prior to implementation, and the managers given a specific time within which to make comments, if desired.



# Schedules of Investment Results

#### Fiscal Year Returns (Net of Fees)



#### Investment Performance\* (Net of Fees)

One, Three, & Five Years Ending June 30, 2015

		1 Y	EAR	3 YEARS		5 YEARS	
Asset Category	Note	% Rate of Return	% Benchmark	% Rate of Return	% Benchmark	% Rate of Return	% Benchmark
U.S. Equity	(a)	7.6%	7.3%	18.1%	17.7%	16.8%	17.5%
International Equity	(b)	-5.1%	-5.3%	8.3%	9.4%	7.5%	7.5%
Total Equity	(c)	3.5%	0.7%	15.0%	13.0%	14.3%	11.9%
U.S. Fixed Income	(d)	0.4%	1.9%	2.8%	1.8%	4.9%	3.3%
Global Fixed Income	(e)	-5.6%	-7.1%	2.2%	-0.8%	5.9%	2.1%
Total Fixed Income	( <b>f</b> )	-0.9%	1.6%	3.6%	2.3%	5.9%	3.8%
Hedge Funds	(g)	3.4%	4.0%	5.9%	6.3%	4.3%	4.1%
Real Estate	(h)	9.9%	9.7%	10.9%	11.3%	N/A	N/A
Private Equity	(i)	6.7%	12.1%	11.0%	15.7%	12.3%	16.8%
Private Debt	(j)	8.9%	6.9%	N/A	6.9%	N/A	8.5%
Cash	(k)	0.0%	0.0%	-2.4%	0.0%	-1.4%	0.1%
Total Plan	(1)	2.7%	2.7%	10.0%	9.0%	10.5%	10.5%

#### Benchmarks:

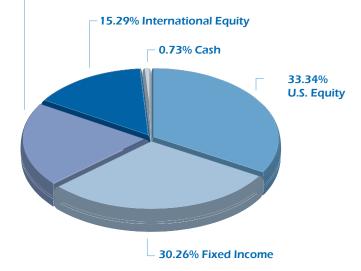
(a) Russell 3000	(e) Barclays Global Aggregate Index	(i) 91-Day Treasury Bills
(b) MSCI ACWI ex US	(f) Barclays Universal Index	(j) Barclays Aggregate + 5%
(c) MSCI ACWI	(g) HFRI Fund of Funds Composite Index	(k) 91-Day Treasury Bills
(d) Barclays US Aggregate Index	(h) 50% FTSE NAREIT Equity REIT/50% NCREIF ODCE	(I) Total Plan Policy Index

\* Source: NEPC Investment Performance Analysis Report as of June 30, 2015. NEPC uses a time-weighted performance calculation by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of Return are annualized when the time period is longer than a year.

## Asset Allocation

Asset Class	Target Allocation	Actual Allocation*
US Equity		
Large Cap Passive U.S. Equities	8.00%	10.91%
Large Cap U.S. Value	5.00%	5.15%
Large Cap Growth	5.00%	5.17%
SMID Cap Growth U.S Equities	2.50%	4.00%
SMID Cap Value U.S Equities	2.50%	3.77%
Long/Short Equity	4.00%	4.34%
Total	27.00%	33.34%
International Equity		
Developed International Equities	8.00%	8.47%
Emerging International Equities	7.00%	6.82%
Total	15.00%	15.29%
Fixed Income		
TIPS	0.00%	3.11%
Global Multi-Sector Fixed Income	22.50%	22.03%
Opportunistic Fixed Income	5.00%	5.12%
Total	27.50%	30.26%
Alternatives		
Hedge Funds	8.00%	8.30%
Private Equity	8.00%	2.80%
Private Debt	8.00%	3.45%
Real Estate	5.00%	5.83%
Total	29.00%	20.38%
Cash	1.50%	0.73%
Total	1.50%	0.73%
Total	100.00%	100.00%

**20.38%** Alternatives



\* Actual allocation based upon fair market value presented in the Statement of Fiduciary Net Position.

## Schedule of Investments

### Ten Largest Equity Holdings at June 30, 2015

Description	Share/Par	Fair Value
Amazon.com Inc.	4,444	\$1,929,096
Facebook Inc. A	19,834	1,701,063
Cisco Systems Inc.	58,870	1,616,570
Visa Inc. Class A	22,729	1,526,252
Oracle Corp.	35,213	1,419,084
Monster Beverage Corp.	9,701	1,300,128
SEI Investments Co.	22,634	1,109,745
Qualcomm Inc.	17,435	1,091,954
Procter & Gamble Co.	13,662	1,068,915
Coca Cola Co.	26,497	1,039,477
Total Ten Largest Equity Holdings		\$13,802,285
Fair Value of Cash, Short-Term Investments, and Investm	ents, June 30, 2015	<u>\$549,573,969</u>
Percentage of Ten Largest Equity Holdings		2.51%
	-	

A complete listing of the holdings at June 30, 2015 is available from the RRS's executive office.

#### Ten Largest Fixed Income Holdings at June 30, 2015

Description	Share/Par	Fair Value
US Treasury Notes 2.0% due 15 Nov 2021	1,300,000	\$1,302,340
US Treasury Notes 3.875% due 15 Nov 2018	925,000	1,001,525
RBSCF Trust 1% due 13 Jan 2032	500,000	520,366
US Treasury Notes 2.125% due 31 Aug 2020	475,000	485,132
Fannie Mae Mortgage Pass-Through 4.5% due 14 Jul 2045	400,000	432,436
US Treasury Notes 2.0% due 31 Jan 2016	425,000	429,518
US Treasury Notes 3.75% 15 Aug 2041	375,000	421,084
Fannie Mae Mortgage Pass-Through 3.5% due 14 Jul 2045	375,000	386,456
US Treasury Notes 3.5% due 15 May 2020	325,000	353,464
Fannie Mae Mortgage Pass 4.0% due 14 Jul 2045	325,000	344,331
Total Ten Largest Fixed Income Holdings		\$5,676,651
Fair Value of Cash, Short-Term investments, and Investments, June 30, 2015		\$549,573,969
Percentage of Ten Largest Fixed Income Holdings		1.03%

A complete listing of the holdings at June 30, 2015 is available from the RRS's executive office.

## Schedule of Fees

#### For Fiscal Year Ending June 30, 2015

	Assets Under Management	<b>Related Fees*</b>
Investment Manager's Strategy		
Corporate Stock	\$152,660,796	\$694,821
International Stock	90,845,778	308,410
Opportunistic Fixed Income	75,126,113	55,902
Hedge Funds	69,751,058	-
International Bonds and Notes	41,454,020	235,352
Private Real Estate	26,887,181	240,392
Private Debt	19,032,349	-
Corporate Bonds and Notes	18,384,960	64,078
Mutual Funds	17,159,740	-
Private Equity	15,423,158	-
US Government and Agency Obligations	9,104,639	27,762
Cash and Cash Equivalents	8,176,567	189,712
REITs	5,199,534	38,993
Emerging Market Debt	4,332,956	13,881
Total Long-Term Investments	553,538,849	1,869,302
Investment Payables	(8,088,247)	-
Investment Receivables	4,114,108	-
Other Receivables	\$9,259	
Total	\$549,573,969	\$1,869,302
Other Investment Service Fees		
Consultant		292,320
Custodian		258,722
Securities Lending Agent		36,029
Total Investment Service Fees		\$2,456,373

\*Mutual fund and limited partnership fees are not reflected in this schedule; instead, these investment expenses are netted against investment income in the statement of changes of Plan net position to arrive at a net investment income amount.

# Schedule of Brokerage Commissions

#### **Commissions in Excess of \$10,000**

For the Fiscal Year Ended June 30, 2015

Broker Name	Shares/Par	Commission	Per Share
Broadcort Capital (through Merrill Lynch)	592,490	\$23,674	\$0.04
Other*	550,394,241	67,482	0.00
Total Commissions	\$550,986,731	\$91,156	

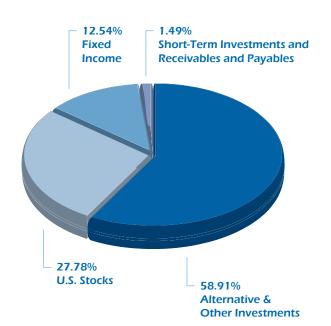
\*Other includes all commissions to brokerage firms receiving less than \$10,000 during the fiscal year ended 6/30/2015.





# Investment Summary

As of June 30, 2015	Fair Value	% of Total Fair Value
U.S. Stocks		
Information Technology	\$17,121,771	3.12%
Consumer	16,314,726	2.97%
Financial	11,276,904	2.05%
Healthcare	10,441,411	1.90%
Industrials	7,701,041	1.40%
Energy	4,947,978	0.90%
Materials	1,424,899	0.26%
Utilities	1,393,169	0.25%
Telecommunications	993,090	0.18%
Other	81,045,807	14.75%
Total U.S. Stock	152,660,796	27.78%
Fixed Income		
Corporate Bonds	18,384,960	3.35%
International Bonds	41,454,020	7.54%
U.S. Government and Agency Obligations	9,104,639	1.66%
Total Fixed Income	68,943,619	12.54%
Alternative & Other Investment	S	
International Stock	90,845,778	16.53%
Hedge Funds	69,751,058	12.69%
Private Real Estate	26,887,181	4.89%
Mutual Funds	17,159,740	3.12%
Private Debt	19,032,349	3.46%
Private Equity	15,423,158	2.81%
REITs	5,199,534	0.95%
Emerging Market Debt	4,332,956	0.79%
Opportunistic High Yield	75,126,113	13.67%
Total Alternative Investments	323,757,866	58.91%
Short-Term Investments		
Cash and Cash Equivalents	8,176,567	1.49%
Total Short-Term Investments	8,176,567	1.49%
<b>Receivables and Payables</b>		
Due from Brokers on Sale of Securities	3,886,944	0.71%
Interest and Dividends Receivable	227,165	0.04%
Other Investment Receivables	9,259	0.00%
Due to Broker on Purchase of Securities	(8,088,247)	-1.47%
Total Receivables and Payables	(3,964,880)	-0.72%
Total Investments	\$549,573,969	100.00%



# **Actuarial Section**

The Actuarial Section presents information relating to the funded status of the pension plan. Additionally, the section provides detailed information about actuarial assumptions, includes retirement trend data, and summarized provisions and changes.

#### In this section:

Actuary's Report Actuarial Assumptions and Methods Schedule of Active Members Valuation Data Schedule of Beneficiaries Added to and Removed from Rolls Analysis of Financial Experience

al Battlefield Park

## Actuary's Report



4421 Cox Road Glen Allen, VA 23060 sageviewadvisory.com

September 25, 2015

Board of Trustees The Richmond Retirement System Richmond, Virginia

Ladies and Gentlemen:

Actuarial valuations of the Richmond Retirement System are performed annually. The results of the latest actuarial valuation of the System, which was prepared as of July 1, 2015, are summarized in this letter.

The valuation reflects the benefits in effect on the valuation date, and was prepared on the basis of the data submitted by the City using generally accepted actuarial principles and methods.

#### Financing Objective and City's Contribution Rate

The financing objective of the System is to:

- (a) Fully fund all current costs based on the normal contribution rate payable by the City determined under the funding method; and
- (b) Liquidate the unfunded actuarial liability based on actuarial liability contributions payable by the City over an amortization period of no more than 30 years, with contributions increasing 4% per year for Police/Fire employees and level contributions for General employees.

The July 1, 2015 valuation develops contribution rates for the fiscal year ending June 30, 2017. These contribution rates, which are based on the covered payroll as of July 1, 2015, are as follows:

	General Employees	Police & Fire	Total
Beginning of Year	38.71%	37.00%	38.71%
Monthly	40.14%	38.36%	39.25%
End of Year	41.61%	39.78%	40.70%

The above rates should be adjusted to reflect the actual budgeted payroll for the fiscal year ending June 30, 2017 if it is different than the covered payroll on which they are based.

The contribution rates and amounts displayed above are sufficient to support the benefits of the System and administrative expenses, and achieve the financing objective set forth above.

continued on next page

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#### Net Pension Liability

Under GASB 67, the Net Pension Liability is the excess, if any, of the Total Pension Liability over the Fiduciary Net Position. The Total Pension Liability is determined under the Entry Age actuarial cost method. The Net Pension Liability as of June 30, 2015 and June 30, 2014 is as follows:

	June 30, 2015	June 30, 2014
Total Pension Liability	\$850,911,445	\$854,284,141
Fiduciary Net Position	\$540,060,865	\$544,904,299
Net Pension Liability	\$310,850,580	\$309,379,842
Fiduciary Net Position as a Percentage of Total Pension Liability	63.5%	63.8%

#### Legislative and Administrative Changes

An ordinance was adopted to extend the maximum number of years a member may participate in the DROP from 5 to 6 years but this change had no impact on the 2015 valuation. There were no other legislative or administrative changes during the fiscal year ended June 30, 2015.

#### Actuarial Assumptions and Methods

Actuarial assumptions are adopted by the Board, upon review of recommendations made by the actuary. An experience study was conducted for the five-year period ended June 30, 2013. This study resulted in the Board adopting several changes in assumptions, at the recommendation of the actuary, in order to better anticipate emerging experience. The Board also adopted the Entry Age actuarial cost method (required under GASB67 for financial reporting purposes) for purposes of determining contribution rates. Previously the Projected Unit Credit method was used. Finally, the Board reviewed the investment return assumption and voted to maintain the current 7.5% assumption.

The unfunded actuarial liability as of July 1, 2006 is being amortized over a period of 20 years; subsequent changes in unfunded actuarial liability (with the exception of changes due to COLA) are also being amortized over a period of 20 years, with contributions increasing 4% per year for Police & Fire employees and level contributions for General employees. Increases in unfunded actuarial liability due to COLA are funded via a first year lump sum payment with the remaining increase amortized over a period of five to ten years. The portion funded via a lump sum and the portion amortized are based on the System's funded status in accordance with a schedule adopted by the Board of Trustees. As of the valuation date all prior ad hoc COLA amounts are fully amortized.

For purposes of determining contribution rates, the difference between actual investment earnings and expected investment earnings is recognized over a five-year period, with the restriction that the actuarial asset value cannot be less than 90% or more than 110% of market value. This smoothing method is utilized in order to smooth the impact of short term market fluctuations on the System's contribution rates and funded status. For purposes of financial reporting beginning with the fiscal year ended June 30, 2014, assets are reported at fair market value.

Samples of the actuarial assumptions and descriptions of the actuarial cost method and asset valuation method are set forth in the outline of actuarial assumptions and methods included in the report.

continued on next page

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#### System Assets and Participant Data

The individual data for members of the System as of the valuation date were reported to the actuary by the City. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness in comparison with the data submitted for the previous valuation. It is our understanding that the independent auditor of the System has also made an examination of the data.

The value of assets in the trust fund taken into account in the valuation was based on statements prepared for us by the Retirement System Staff and audited by the independent auditor of the System. Assets have been reduced by the value of DROP accounts as those accounts are recognized as benefits payable from the System.

#### Financial Results and Membership Data

Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are shown in the valuation report and the related membership data schedules. We were responsible for providing information for all schedules included in the Actuarial Section as well as certain schedules included in other sections of the consolidated annual financial report for the fiscal year ended June 30, 2015.

#### **Defined Contribution Plan**

'The City also sponsors a 401(a) Defined Contribution Plan for General employees hired on or after July 1, 2006 (with the exception of senior executives) and other employees who have elected to participate in that plan in lieu of the Richmond Retirement System. We have prepared an analysis of the Defined Contribution Plan with respect to Virginia Code Title 51.1-800 and believe it is in compliance.

#### **Funding Adequacy**

The results of the valuation indicate the rate of contribution payable by the City, when taken together with the current assets of the System including member contributions, is adequate to fund the actuarial liabilities on account of all benefits payable under the System in accordance with generally accepted actuarial principles utilizing the assumptions and methods adopted by the Board.

To the best of our knowledge, this report is complete and accurate and the System is being operated on an actuarially sound basis. All costs and liabilities have been determined in conformance with generally accepted actuarial principles and on the basis of actuarial assumptions and methods which are each individually reasonable taking into account past experience and reasonable expectations of future experience.

Respectfully submitted,

SageView Consulting Group

Willow a g

William M. Dowd, FCA, EA *Managing Principal* 

William J. Kail

William J. Reid, FCA, EA *Principal* 

# Actuarial Assumptions and Methods

### Actuarial Cost Method

For fiscal year ended on or before June 30, 2014 the actuarial cost method used to determine the actuarial liability and the normal cost was the Projected Unit Credit Method. Beginning with the fiscal year ended June 30, 2014 the actuarial cost method used to determine the actuarial liability and the normal cost is the Entry Age Actuarial Cost Method.

The accrued liability and the normal cost are used to determine the City of Richmond's contribution require-

ment. The July 1, 2013 valuation developed contribution rates for the fiscal year ending June 30, 2015, using the Projected Unit Credit Method. However, due to the GASB 67 implementation, the RRS will utilize the Entry Age Actuarial Cost Method to develop contribution rates for the fiscal year ending June 30, 2016.

The investment return assumption of 7.5% was adopted July 1, 2011. The following actuarial assumptions and methods were adopted June 30, 2015.

### **Actuarial Assumptions**

#### Interest

7.5% per annum, compounded annually.

#### Mortality

#### Active Lives and Service Retirements

#### **General Employees:**

RP–2000 Mortality Table with 2-year set-forward for males

#### **Police and Fire Employees:** RP–2000 Mortality Table

#### **Disabled Lives**

**General Employees:** PBGC disabled life table for retirees receiving Social Security

#### **Police and Fire Employees:** PBGC disabled life table for retirees not receiving Social Security

#### Turnover

**General Employees:** An attained age table with the following typical rates:

Age	Rate
25	0.1668
35	0.1039
45	0.0574
55	0.0219
60	0.0137

**Police and Fire Employees:** An attained age table with the following typical rates:

Age	Rate
25	0.0567
35	0.0310
45	0.0068
55	0.0011
60	0.0000

#### Retirement

**General Employees:** A select and ultimate table with the following typical rates; 20% for the first year in which the employee is eligible for unreduced immediate retirement benefits, and:

Age	Rate
55-57	0.03
58-59	0.06
60	0.03
61	0.09
62	0.20
63	0.10
64	0.20
65	0.25
66-70	0.30
71-74	0.50
75	1.00

**Police and Fire Employees:** A select and ultimate table with the following typical rates; 40% for the first year in which the employee is eligible for unreduced immediate retirement benefits, and:

Age	Rate
50	0.09
51-54	0.12
55-56	0.15
57-58	0.09
59-63	0.50
64	1.000

#### Disability

**General Employees:** An attained age table with the following typical rates:

Age	Rate
25	0.000436
35	0.000436
45	0.001169
55	0.003429
60	0.004900

**Police and Fire Employees:** An attained age table with the following typical rates:

Age	Rate
25	0.000172
35	0.000172
45	0.000615
55	0.002707

#### **Duty Disability**

**General Employees:** An attained age table with the following typical rates:

Age	Rate
25	0.000037
35	0.000037
45	0.000130
55	0.000573

**Police and Fire Employees:** An attained age table with the following typical rates:

Age	Rate
25	0.000163
35	0.000244
45	0.000871
55	0.003835

#### Salary Increases

**General Employees:** An attained age table with the following typical rates:

Rate
0.040
0.035
0.035
0.030
0.030

#### Police and Fire Employees: An

attained age table with the following typical rates:

Age	Rate
25	0.045
35	0.045
45	0.030
55	0.030
60	0.030

### Cost-of-Living Adjustments

None assumed.

#### Asset Valuation Basis

For purposes of determining contribution rates, five-year spread of the difference between actual investment earnings and assumed investment earnings at 7.5% was used. The resulting actuarial asset value cannot be less than 90% or greater than 110% of market value.

# Schedule of Active Members Valuation Data

#### General Defined Benefit Plan Members (Dollars in Thousands)

Valuation Date	Members	Annual Payroll	Average Salary	Percent Increase (Decrease)
6/30/2015	1,014	\$56,518	\$56	4.5
6/30/2014	1,075	57,323	53	3.4
6/30/2013	1,256	64,794	52	0.2
6/30/2012	1,375	70,773	51	1.6
5/30/2011	1,510	76,521	51	1.1
5/30/2010	1,644	82,411	50	1.0
5/30/2009	1,778	88,214	50	3.7
6/30/2008	1,886	90,250	48	4.7
5/30/2007	2,071	94,688	46	5.3

#### Police and Fire Defined Benefit Plan Members (Dollars in Thousands)

Valuation Date	Members	Annual Payroll	Average Salary	Percent Increase (Decrease)
6/30/15	1,005	\$55,220	\$55	1.8
6/30/2014	990	53,425	54	0.2
6/30/2013	963	51,872	54	(2.3)
6/30/2012	985	54,287	55	0.0
6/30/2011	988	54,450	55	(2.7)
6/30/2010	972	55,062	57	(1.4)
6/30/2009	1,004	57,654	57	4.4
6/30/2008	992	54,583	55	1.9
6/30/2007	985	53,210	54	0.2

#### Defined Contribution 401(a) Plan Members (Dollars in Thousands)

Valuation Date	Members	Annual Payroll	Average Salary	Percent Increase (Decrease)
6/30/15	1890	\$94,457	\$50	3.4
6/30/2014	1,865	90,102	48	0.0
6/30/2013	1,765	85,235	48	2.7
6/30/2012	1,735	81,603	47	(1.2)
6/30/2011	1,656	78,861	48	1.2
6/30/2010	1,632	76,819	47	1.4
6/30/2009	1,614	74,938	46	3.1
6/30/2008	1,402	63,161	45	4.2
6/30/2007	1,059	45,801	43	0.6

## Schedule of Beneficiaries Added to and Removed from Rolls

(Dollars in	e Thousands	)							Retirees as of Active	
Ended	Added	Annual Allowances Added	Removed	Annual Allowances Removed	Total	Annual Allowances	% Change	Average Annual Allowances	Number	Рау
6/30/15	163	\$1,667	161	\$1,517	4,314	\$68,358	0.2%	\$16	213.7%	61.2%
6/30/14	285	\$5,087	143	\$1,654	4,312	\$68,208	5.3%	\$16	208.8%	61.6%
6/30/13	182	\$1,917	143	\$1,483	4,170	\$64,775	0.7%	\$16	187.9%	55.5%
6/30/12	206	\$2,885	153	\$1,630	4,131	\$64,341	2.0%	\$16	175.0%	51.4%
6/30/11	217	\$4,038	136	\$1,462	4,078	\$63,086	4.3%	\$15	163.3%	48.2%
6/30/10	205	\$3,580	171	\$1,581	3,997	\$60,511	3.4%	\$15	152.8%	44.0%
6/30/09	159	\$1,703	117	\$1,123	3,963	\$58,512	1.0%	\$15	142.5%	40.1%
6/30/08	239	\$3,628	159	\$1,525	3,921	\$57,932	3.8%	\$15	136.2%	40.0%
6/30/07	186	\$3,539	120	\$1,120	3,841	\$55,830	4.5%	\$15	125.7%	37.7%
6/30/06	235	\$3,318	180	\$1,431	3,775	\$53,411	3.7%	\$14	107.1%	32.7%
6/30/05	248	\$3,709	160	\$1,469	3,720	\$51,524	4.5%	\$14	103.1%	32.4%
6/30/04	289	\$6,231	112	\$937	3,632	\$49,283	12.0%	\$14	99.4%	31.2%
6/30/03	193	\$2,806	123	\$1,027	3,455	\$43,989	4.2%	\$13	84.6%	25.5%
6/30/02	198	\$4,765	146	\$932	3,385	\$42,210	10.0%	\$12	82.2%	25.3%
6/30/01	218	\$3,425	139	\$991	3,333	\$38,377	6.8%	\$12	81.1%	24.3%

# Analysis of Financial Experience

# Reasons for Change in the Net Pension Liability

The net pension liability was \$310,850,580 as of June 30, 2015. The increase from the prior year was primarily due the investment return on the value of assets being less than expected.

### Reasons for Change in Funded Status

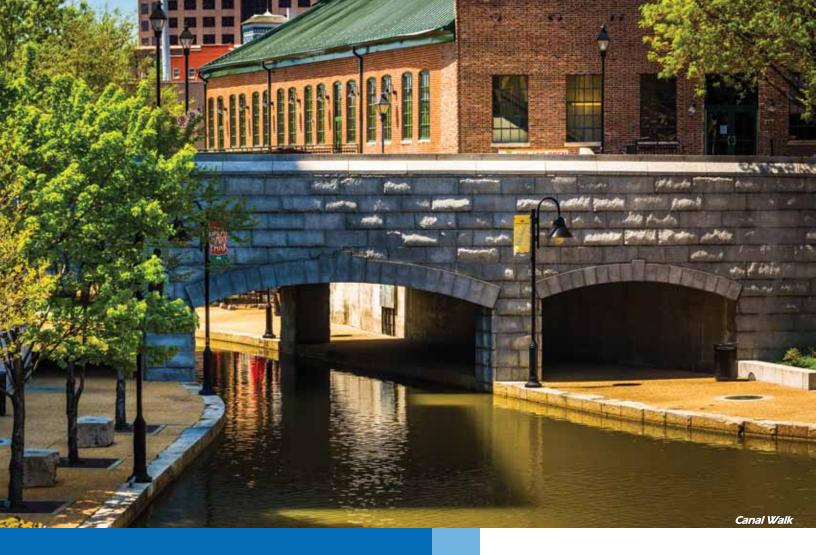
The funded status decreased from 63.8% as of June 30, 2014 to 63.5% as of June 30, 2015. The decrease is primarily due to the investment return on the value of assets being less than expected.

# Reasons for Change in Contribution Rates

The overall employer contribution rate, as of the beginning of the year, increased from 36.14% for the fiscal year ending June 30, 2014 to 39.11% for the fiscal year ending June 30, 2015. The increase of 2.97% is due to the following reasons:

Total:	2.97%
Increase due to other experience factors:	0.35%
Increase due to reduction in covered payroll	1.72%
Decrease/Increase due to changes in benefit provisions:	0.00%
Decrease/Increase due to changes in assumptions:	0.00%
Increase due to investment loss on actuarial value of assets:	0.90%





## **Statistical Section**

The Statistical Section presents detailed historical information regarding the pension plan administered by the RRS. This information includes a 10-year overview of changes in net position, plan membership, contributions, plan additions and deductions, benefits and refunds. Included in this analysis is statistical information regarding retirees.

#### In this section:

- Schedule of Changes and Growth in Net Position
- Schedule of Retirees and Beneficiaries by Type of Retirement
- Schedule of Participating Employers (Current Year and Ten Years Ago)
- Schedule of Average Benefit Payments Schedule of Membership

# Schedule of Changes and Growth in Net Position

## Pension Trust Fund (Dollars in Thousands)

For the year ended June 30

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Net Position Available — Beginning of Year	\$544,904	\$492,619	\$461,761	\$489,987	\$417,669	\$386,358	\$511,657	\$559,529	\$497,054	\$465,795
Additions										
Employer Contributions	46,537	42,295	40,402	38,884	39,718	32,079	33,192	31,936	30,889	30,712
Member Contributions	2,347	2,118	2,093	2,217	2,421	2,486	2,579	2,800	2,545	1,158
Investment Income (Loss)	15,641	76,463	54,219	1,896	93,770	59,128	(97,507)	(27,346)	82,273	49,635
DC Contribution Revenue	148	48	44	31	52	51	49	90		
Total Additions	64,673	120,924	96,758	43,028	135,961	93,744	(61,686)	7,479	115,707	81,505
Deductions										
Benefit Payments	68,140	67,274	64,673	70,037	62,392	61,222	62,835	54,134	51,584	49,188
Refunds	128	47	102	49	81	118	102	54	535	_
Administrative Expenses	1,248	1,318	1,125	1,166	1,169	1,094	1,095	1,162	1,114	1,058
Total Deductions	69,516	68,639	65,900	71,253	63,643	62,434	64,033	55,351	53,233	50,246
Change in Net Position	(4,843)	52,285	30,858	(28,225)	72,318	31,310	(125,719)	(47,872)	62,474	31,259
Net Position Available — End of Year	\$540,061	\$544,904	\$492,619	\$461,761	\$489,987	\$417,669	\$386,359	\$511,657	\$559,529	\$497,054

## Schedule of Retirees and Beneficiaries

		Type of Retirement <sup>1</sup>							Option Selected <sup>2</sup>					
Amount of Monthly Benefit	Number of Retirees	А	в	с	D	Е	F	G	Life	1	2	3	4	5
\$1-\$100	350	0	24	312	13	1	0	0	308	12	1	6	0	23
\$101-\$200	358	6	44	291	9	1	3	4	293	23	3	0	2	37
\$201-\$300	232	15	56	141	7	1	10	2	185	12	0	5	3	27
\$301-\$400	239	12	90	104	13	0	12	8	160	17	0	3	2	57
\$401-\$500	203	16	77	74	6	3	23	4	150	9	0	1	0	43
\$501-\$600	194	15	77	65	11	6	14	6	138	4	1	3	2	46
\$601-\$700	149	15	74	42	7	0	9	2	98	4	0	4	3	40
\$701-\$800	139	15	75	22	10	3	12	2	86	2	1	2	0	48
\$801-\$900	146	17	79	18	11	8	11	2	81	5	1	1	4	54
\$901-\$1000	138	18	75	19	3	7	13	3	76	3	0	3	5	51
Over \$1000	2166	317	1575	37	45	105	86	1	1,406	125	38	103	91	403
Total	4,314	446	2,246	1,125	135	135	193	34	2,981	216	45	131	112	829

### <sup>1</sup>Types of Retirement

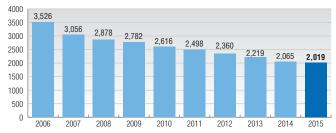
- A Normal Retirement A general employee age 65 or a sworn public safety officer age 60 or older.
- *B Early Service* A general employee at least age 55, with five years of creditable service, or a sworn public safety officer at least age 50, with five years of creditable service.
- C Deferred Service A former vested general employee age 65 or older or a former vested sworn public safety officer age 60 or older.
   Deferred Early Service A former vested general employee at least age 55 but less than age 65 or a sworn public safety officers at least age 50 but less than age 60.
- *D* Beneficiary (normal, early, deferred retirement) Surviving beneficiary of a deceased retiree who is receiving a retirement allowance payable monthly for life.
- *E* Compensable Disability An employee who retires from active service due to a job-related disability.
- F Ordinary Disability A vested employee who retires from active service due to a non-job-related disability.
- *G Beneficiary (disability)* Beneficiary of a deceased disability retiree who is receiving a retirement allowance payable monthly for life.

#### <sup>2</sup>Option Selected

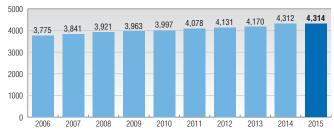
#### LIFE — Basic Benefit

- Option 1 100% Joint and Survivor Benefit
- Option 2 75% Joint and Survivor Benefit
- *Option 3* 50% Joint and Survivor Benefit
- Option 4 25% Joint and Survivor Benefit
- Option 5 Social Security (Smooth-Out)

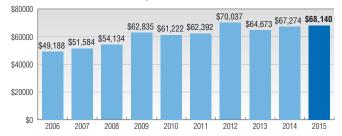
#### Number of Active Defined Benefit Plan Members



#### **Number of Retirees and Beneficiaries**



#### **Retirement Benefit Expenses** (Dollars in Thousands)



June 30, 2015

## Schedule of Participating Employers Current Year and Ten Years Ago

		2015		2005				
Participating Employers	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System		
City of Richmond	1,979	1	98.0%	3,415	1	94.7%		
Richmond Behavioral Health Authority	40	2	2.0%	192	2	5.3%		
Total	2,019		100.0%	3,607		100.00%		

## **Benefit Payment Options:**

### **Basic Benefit**

This form of payment provides a monthly benefit for life. However, when member dies, all benefits stop. There are no monthly payments to a beneficiary after death.

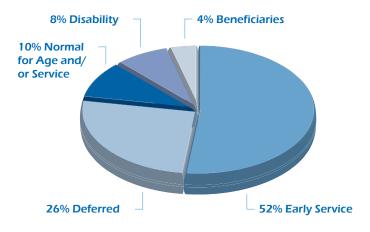
### Social Security (Smooth-Out) Option

This form of payment provides an increased monthly benefit prior to age 65. When a member reaches age 65, retirement benefits will be reduced by the projected amount of their primary Social Security benefit. The purpose of this option is to provide for a more level total retirement income before and after age 65, taking into account the federal Social Security benefits. There are no monthly payments to a beneficiary after the member's death.

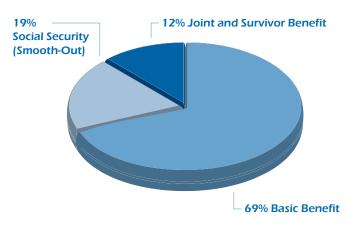
#### Joint and Survivor Benefit Option

This form of payment provides a reduced benefit during a member's lifetime. Upon the member's death, the same amount or a designated fraction (25%, 50% or 75%) will continue to be paid to a designated beneficiary, if living. The benefit remains reduced if the designated beneficiary precedes the member in death.

## **Retirement Types**



### **Benefit Payment Options**



# Schedule of Average Benefit Payments

#### Retirements Effective July 1, 2006 to June 30, 2015

	Years of Creditable Service								
	0-5	5-10	10-15	15-20	20-25	25-30	30+		
FY 2015									
Average monthly benefit	\$616	\$270	\$734	\$1,081	\$1,298	\$2,994	\$2,834		
Average final salary	\$116,696	\$29,673	\$46,794	\$51,058	\$57,990	\$64,902	\$56,033		
Number of retired members	3	40	33	19	8	20	19		
FY 2014									
Average monthly benefit	\$0	\$270	\$631	\$1,265	\$1,920	\$2,624	\$2,824		
Average final salary	\$0	\$28,316	\$38,490	\$45,144	\$49,749	\$55,108	\$50,571		
Number of retired members	0	41	40	15	24	39	100		
FY 2013									
Average monthly benefit	\$199	\$264	\$508	\$819	\$1,499	\$2,582	\$3,142		
Average final salary	\$75,193	\$30,468	\$31,411	\$40,595	\$50,062	\$61,874	\$58,771		
Number of retired members	2	37	30	16	21	30	38		
FY 2012									
Average monthly benefit	\$322	\$299	\$457	\$677	\$2,032	\$2,792	\$2,722		
Average final salary Number of retired members	\$40,323	\$33,962	\$33,936	\$31,863	\$52,933	\$60,187	\$50,971 68		
	1	32	25	18	15	31	68		
FY 2011	44.4		<b>* - / -</b>						
Average monthly benefit	\$26 \$30,691	\$285 \$20.026	\$562 \$20,721	\$1,041	\$1,884	\$3,026 \$64,226	\$2,814		
Average final salary Number of retired members	\$30,691 1	\$29,926 43	\$29,721 22	\$51,322 23	\$55,280 28	\$64,226 34	\$52,330 62		
FY 2010	1	45		25	20	51	02		
	¢105	\$204	\$ 470	\$700	\$2,007	\$2.122	¢2.7((		
Average monthly benefit Average final salary	\$105 \$28,580	\$204 \$25,991	\$472 \$35,365	\$709 \$33,647	\$2,007 \$55,308	\$3,122 \$64,977	\$2,766 \$51,989		
Number of retired members	\$28,980	33	35,505 18	\$55,047 16	پرچ 27	37	48		
FY 2009		00			_/	0,			
Average monthly benefit	\$0	\$177	\$538	\$812	\$1,307	\$2,674	\$2,396		
Average final salary	\$0	\$22,323	\$34,916	\$37,829	\$42,471	\$60,212	\$46,044		
Number of retired members	0	41	21	17	16	20	36		
FY 2008									
Average monthly benefit	\$102	\$229	\$593	\$695	\$1,653	\$2,088	\$2,500		
Average final salary	\$19,692	\$21,941	\$40,280	\$34,364	\$48,623	\$45,546	\$48,974		
Number of retired members	1	51	16	25	29	27	50		
FY 2007									
Average monthly benefit	\$0	\$325	\$564	\$639	\$854	\$2,137	\$2,579		
Average final salary	\$0	\$35,270	\$29,671	\$35,828	\$53,399	\$47,612	\$48,148		
Number of retired members	0	32	20	16	37	30	54		
FY 2006									
Average monthly benefit	\$151	\$174	\$634	\$520	\$1,320	\$2,145	\$2,458		
Average final salary	\$33,120	\$20,592	\$32,286	\$28,257	\$41,150	\$46,932	\$45,775		
Number of retired members	2	53	26	19	21	40	52		

# Schedule of Membership

June 30, 2015

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0
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2
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5
32
11
27
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362
24
1
5
29
88
2
259
192
129
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15
2
1
3
27
40
63
643
4
2
3
2,019
3,076
1,233
5
4,314
1,415
205
1,620
1,836
54
1,890

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