

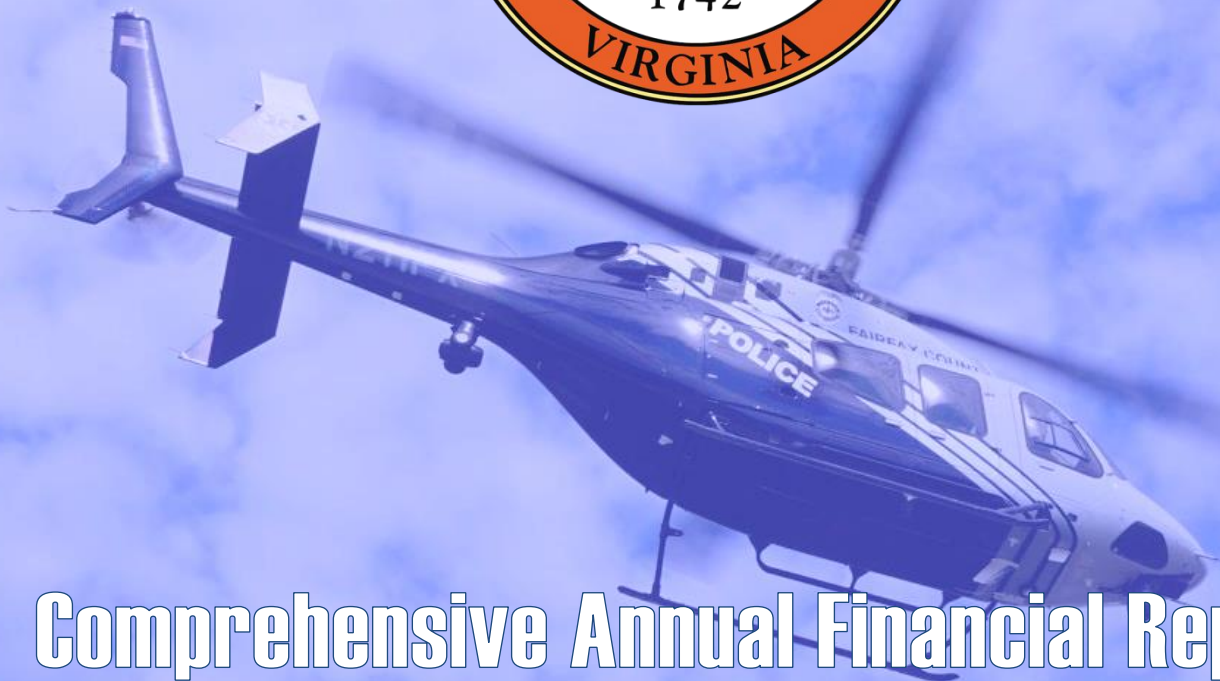
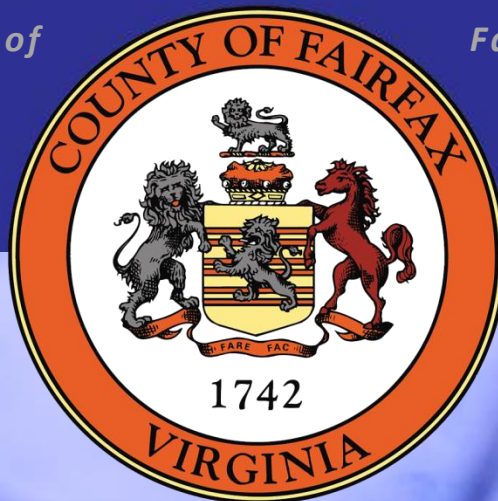
# 2015

# FAIRFAX COUNTY

# POLICE officers RETIREMENT SYSTEM

*A Pension Trust Fund of*

*Fairfax County, Virginia*



# Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2015

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# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

November 23, 2015

Dear Members of the Board of Trustees:

I am pleased to submit to you the annual report of the Fairfax County Police Officers Retirement System (System) for the fiscal year ended June 30, 2015. This annual report is provided as an aid to understanding the structure and evaluating the status of the System. The System's management is responsible for the accuracy of financial information contained herein. The Management's Discussion and Analysis provides further detail to the financial statements.

## **History**

The Fairfax County Police Officers Retirement System was created under authority granted by Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia) on March 29, 1944, to provide defined benefit pension plan coverage for sworn full-time law enforcement officers of the Fairfax County Police Department. In 1981 Fairfax County enacted Article 7 of the Fairfax County Code, which adopted and continued Chapter 303 as amended. There were 1,248 active members, 81 in the Deferred Retirement Option Program (DROP) and 1,012 retirees participating in the System as of June 30, 2015. For calculations surrounding the Total Pension Liability and its components, Cheiron used rollforward techniques with the June 30, 2014, valuation as a starting point. As such, their results were based on the active, DROP, and retiree counts disclosed as of that date.

## **Provisions**

The benefit provisions of the System are established by County Ordinance. The System provides normal service retirement and early service retirement benefits for members who attain age or service requirements. Coverage for service-connected disability benefits is immediate upon membership in the System. Ordinary (non-service-related) disability benefits are provided after the attainment of five years of service. Members are vested after five years of service and are eligible for benefits at the early or normal service retirement date.

## **Capital Markets and Economic Conditions**

In fiscal year 2015, the System's investment returns were challenged by market downturns in a number of asset classes. In particular, the effect of steep declines in oil prices pushed commodities investments down 23.7 percent for the year. The System's portfolio return for the year was 3.5% (3.3 %, net of fees), lagging the long term return target of 7.5%.



## **Fairfax County Retirement Systems**

10680 Main Street \* Suite 280 \* Fairfax, VA 22030

703-279-8200 \* TTY: 711 \* 1-800-333-1633 \* Fax: 703-273-3185

[www.fairfaxcounty.gov/retirement/](http://www.fairfaxcounty.gov/retirement/)

## ***Introductory Section***

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This return was above the median public fund return of 3.1% and placed in the 36<sup>th</sup> percentile of the BNY Mellon universe of public funds. However, over the long term, returns compared even more favorably, with investment returns for the ten-year period were 7.3% per year, ranking the fund in the top 17<sup>th</sup> percentile of all other public funds in the BNY Mellon universe.

Additional details on the markets and the System's investments are provided in the Investment Section.

### **Internal and Budgetary Controls**

The System's management is responsible for the financial information presented in this report in accordance with U.S. generally accepted accounting principles. Proper internal accounting controls exist to provide reasonable, but not absolute, assurance for both the safekeeping of assets and the fair presentation of the financial statements. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management.

### **Investment Policies and Strategies**

The Board of Trustees has adopted a Statement of Investment Objectives and Policy. This Statement establishes the investment goals, guidelines, constraints and performance standards that the Board of Trustees uses when exercising its fiduciary duties to manage the investment assets of the System. The Board operates in conformity with the standard of care required in making investments as stated in the Code of Virginia §51.1-803. Please see Footnote 3 to the Financial Section of this report for a description of this standard of care and details on the System's investment policies and strategies.

The Board receives quarterly reporting from staff to ensure compliance with its stated objectives and policy. Staff also monitors the performance of the System and its investment managers and updates the Board on a monthly basis throughout the year. Rate of return information is included in the Investment Section, prepared internally by staff using data from the System and investment managers.

Securities of the System, except for the pooled funds and the County's pooled cash and temporary investments, are held in safekeeping, on the System's behalf, by BNY Mellon Asset Servicing as agent. The BNY Mellon Financial Corporation, the parent company, carries Financial Institution bond insurance coverage including a Computer Crime Policy. An additional Excess Securities policy covers all risk of physical loss to securities.

### **Funded Status**

An actuarial valuation of the System to determine funding requirements is performed annually. The System's funding policy provides for periodic employer contributions at actuarially determined rates which are calculated as a percentage of current payroll, and are adjusted as necessary to accumulate sufficient assets to meet the costs of benefit payments when due. The valuation of the System performed as of July 1, 2014, indicated that the ratio of assets accumulated by the System to total actuarial accrued liabilities for benefits showed an increase from 82.1% to 85.0%. The actuarial section contains further information on the results of the July 1, 2014, valuation. For purposes of calculating the net pension liability as of June, 30, 2015, in accordance with Governmental Accounting Standards Board's (GASB) Statement Number 67, the System's funded status was 84.8%.

Based on the July 1, 2014, actuarial valuation, the employer contribution rate for 2015 following the adopted corridor-based funding policy was 36.82%, an increase of 2.95% from the 2014 rate of 33.87%. During establishment of the fiscal year 2016 County budget, however, the Board of Supervisors adopted a higher contribution rate of 37.98%. This was done to improve the funded level of the plan, accomplished by raising the target unfunded liability amortization level from 93% to 95%, and to offset a decrease in the employee contribution rate (discussed further below).

### **Major Initiatives**

Working in concert with the County's Chief Financial Officer, the System's actuary (Cheiron), and other County staff, efforts continue to improve the funded status of the Plan. As a result of this work, and as referenced above, the County has increased the employer contribution rate above what was required by the adopted corridor-based funding policy for three consecutive years. This was accomplished by increasing the target amortization level for the unfunded liability from 90% in prior years to 91% in 2014 and 93% in 2015. This target was further increased to 95% for the County's 2016 adopted budget.

On June 23, 2015 the County Board of Supervisors was presented with changes to the Fairfax County Code to amend the County's funding policies for the three retirement systems. These changes, which were subsequently adopted by the Board on July 28, 2015, modified the methodology used for determining the annual employer contribution rates. The changes enacted are as follows:

- Increases in the employer contribution rates will continue so that the County will amortize 100 percent of the unfunded liability by FY 2020 at the latest, thus fully funding the Annual Required Contribution.
- The County will continue to use a conservative 15-year amortization period and, once 100 percent of the unfunded liability is being amortized, these amortization periods will be closed and any subsequent years' incremental unfunded liabilities will be amortized over separate 15-year periods.
- Any additional unfunded liabilities created as a result of future approved benefit enhancements will be fully funded when implemented, to ensure that adjustments to benefit levels will not reduce the system's funded status.

Finally, as part of these changes to the County Code, the Board made it a budgetary priority to not reduce the employer contribution rates until each of the systems reaches 100 percent funding.

### **Awards**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to The Fairfax County Police Officers Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2014. This was the fifth consecutive year that the System has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current annual financial report continues to meet the Certificate of Achievement Program's



requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Fairfax County Retirement Systems received the Public Pension Standards Award for the fiscal year ended June 30, 2015, from the Public Pension Coordinating Council (PPCC), in recognition of meeting the professional standards for plan funding as set forth in the Public Pensions Standards. The PPCC is a confederation of the National Association of the State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

**Other Information**

*Independent Audit and Actuarial Certifications*

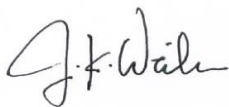
KPMG LLP performed an annual audit of the financial statements of the System to obtain reasonable assurance about whether the financial statements are free from material misstatements, whether due to fraud or error. Additionally, Cheiron performed an annual actuarial valuation to assess the plan's ability to meet future obligations. The independent auditors' report and certification from the actuary are included in this report.

*Acknowledgements*

The annual report of the Police Officers Retirement System was prepared by the System's staff under the leadership of the Board of Trustees, whom I have the privilege to serve. I must also acknowledge the entire Retirement Systems' team for their tireless work throughout the year to ensure that we continue to provide the best-possible service to and stewardship for the employees, retirees, and citizens of Fairfax County.

This report is intended to provide complete and reliable information for determining the financial status of the System. It is being submitted to the Board of Supervisors and other interested parties and is available to the public via the County's website located at [www.fairfaxcounty.gov/retirement/](http://www.fairfaxcounty.gov/retirement/).

Respectfully submitted,



Jeffrey K. Weiler  
Executive Director



Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Fairfax County Police Officers  
Retirement System, Virginia**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2014**

A handwritten signature in black ink, reading "Jeffrey R. Emer". The signature is written in a cursive style with a prominent 'J' and 'E'.

Executive Director/CEO



Public Pension Coordinating Council

***Recognition Award for Funding  
2015***

Presented to

***Fairfax County Police Officers  
Retirement System***

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

*Presented by the Public Pension Coordinating Council, a confederation of*

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

A handwritten signature in black ink that reads 'Alan H. Winkle'.

Alan H. Winkle  
Program Administrator



Seven members serve on the Fairfax County Police Officers Retirement System Board of Trustees. Three of the members are citizens appointed by the Fairfax County Board of Supervisors. Two of the members are elected by Fairfax County Government Employees, and one member is elected by retirees. The Director of Finance serves as an Ex Officio member.

**Board of Trustees**



**Aniello A. (Sweeney) DeSantis**  
*President*  
Elected Member Trustee  
Term Expires: November 30, 2015



**Edward C. O'Carroll**  
*Vice President and Secretary*  
Elected Member Trustee  
Term Expires: December 31, 2016



**Christopher J. Pietsch**  
*Treasurer*  
Fairfax County Director of Finance  
*Ex officio Trustee*



**James R. Dooley, Jr.**  
Elected Retired Member Trustee  
Term Expires: June 30, 2018



**Craig E. Dyson**  
Board of Supervisors Appointee  
Term Expires: December 31, 2017



**Stephen K. Gallagher**  
Board of Supervisors Appointee  
Term Expires: June 30, 2018



**Brendan D. Harold**  
Board of Supervisors Appointee  
Term Expires: December 31, 2018

**Administrative Organization**

**Administrative Staff**

Jeffrey K. Weiler  
*Executive Director*

Gregory A. Samay  
*Chief Investment Officer*

Katherine Molnar, CFA  
*Senior Investment Officer*

Christopher Colandene  
*Retirement Administrator*

**Professional Services**

**Actuary**

Cheiron  
Actuaries

**Auditor**

KPMG LLP  
Certified Public Accountants

**Investment Managers**

Acadian Asset Management, LLC  
Boston, MA

AQR Capital Management, LLC  
Greenwich, CT

BlackRock, Inc.  
San Francisco, CA

BlueCrest Capital Management, LLP  
New York, NY

Bridgewater Associates, L.P.  
Westport, CT

The Clifton Group  
Edina, MN

Cohen & Steers Capital Management, Inc.  
New York, NY

Czech Asset Management  
Old Greenwich, CT

DoubleLine Capital, L.P.  
Los Angeles, CA

First Eagle Investment Management  
New York, NY

King Street Capital Management, L.P.  
New York, NY

Loomis, Sayles & Company, L.P.  
Boston, MA

**Investment Managers**  
**(continued)**

Oaktree Capital Management, L.P.  
Los Angeles, CA

PIMCO  
Newport Beach, CA

Standish Mellon Asset Management Co.  
Pittsburgh, PA

Starboard Value, L.P.  
New York, NY

Systematica Investments Limited  
New York, NY

The Vanguard Group  
Malvern, PA

WCM Investment Management  
Laguna Beach, CA

**Custodian Bank**

BNY Mellon Asset Servicing  
Pittsburgh, PA

**Organization Chart**



**Board of Supervisors**

*Left to right: Catherine M. Hudgins, Michael R. Frey, John C. Cook, Gerald W. Hyland, Sharon Bulova (Chairman At-Large), Penelope A. Gross (Vice Chairman), John W. Foust, Jeffrey C. McKay, Pat Herrity, Linda Q. Smyth*

**Board of Trustees**

*(Seven Members – see page 7)*

*Aniello A. (Sweeney) DeSantis, Edward C. O’Carroll, Christopher J. Pietsch, James R. Dooley, Jr., Craig E. Dyson, Stephen K. Gallagher, Brendan D. Harold*



**Executive Director**  
*Jeffrey K. Weiler*



**Chief Investment Officer**  
*Gregory A. Samay*



**Retirement Administrator**  
*Christopher Colandene*



**Senior Investment Officer**  
*Katherine Molnar, CFA*



KPMG LLP  
Suite 12000  
1801 K Street, NW  
Washington, DC 20006

## Independent Auditor's Report

The Board of Supervisors  
County of Fairfax, Virginia

The Board of Trustees  
Fairfax County Police Officers Retirement System:

### Report on the Financial Statements

We have audited the accompanying financial statements of the Fairfax County Police Officers' Retirement System (the System), a pension trust fund of the County of Fairfax, Virginia which comprise the statement of fiduciary net position as of June 30, 2015, the related statement of changes in fiduciary net position for the year ended June 30, 2015, 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 U.S. generally accepted accounting principles; 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.

### *Auditors' 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 from 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 auditors' 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.

KPMG LLP is a Delaware limited liability partnership,  
the U.S. member firm of KPMG International Cooperative  
("KPMG International"), a Swiss entity.



The Board of Supervisors  
County of Fairfax, Virginia

The Board of Trustees  
Fairfax County Police Officers Retirement System Fairfax County, VA

November 24, 2015  
Page 2 of 3

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 fiduciary net position of the System as of June 30, 2015, and the respective changes in fiduciary net position thereof for the year then ended in accordance with U.S. generally accepted accounting principles.

***Other Matters***

***Required Supplementary Information***

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 14-17, the schedule of changes in net pension liability and related ratios information on page 34, the schedule of net pension liability and the schedule of money weighted rate of return on page 35, the schedule of employer contributions on page 36, and the summary of significant changes to the pension system on page 37 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.





The Board of Supervisors  
County of Fairfax, Virginia

The Board of Trustees  
Fairfax County Police Officers Retirement System Fairfax County, VA

November 24, 2015  
Page 3 of 3

*Supplementary and Other Information*

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The introductory section on pages 1-10, the other supplementary information on page 38, the investment section on pages 39-51, the actuarial section on pages 53-73, and the statistical section on pages 75-78 are presented for purposes of additional analysis and are not a required part of the basic financial statements. The introductory section, other supplementary information, investment section, actuarial section, and statistical section has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

*KPMG LLP*

Washington, DC  
November 24, 2015

## **Management's Discussion and Analysis (unaudited)**

This section presents management's discussion and analysis of the Fairfax County Police Officers Retirement System's ("System" or "Plan") financial performance and provides an overview of the financial activities for the fiscal year ended June 30, 2015. The information in this section should be reviewed in conjunction with the Letter of Transmittal located in the Introductory Section.

### **Overview of Financial Statements and Accompanying Information**

**Basic Financial Statements.** The System presents the Statement of Fiduciary Net Position as of June 30, 2015 and Statement of Changes in Fiduciary Net Position for the year ended June 30, 2015. The Statement of Fiduciary Net Position provides a snapshot of the financial position. It reports the assets, liabilities and resulting net position restricted for pension benefits. The Statement of Changes in Fiduciary Net Position summarized the financial activities that occurred during the reporting period that increased and decreased the Net Position Restricted for Pension.

**Notes to Financial Statements.** The Notes to Financial Statements are an integral part of the financial statements and include additional information and schedules to provide a better understanding of the financial statements. The Notes to Financial Statements include detailed information that are not readily evident in the financial statements such as the accounting policies, plan membership and benefits, and summary disclosures. Specifically:

Note 1 Describes significant accounting policies.

Note 2 Provides a description of the System, the funding policy, and member contributions and benefits.

Note 3 Describes investments and disclosures on interest rate, credit quality, foreign currency risk, derivatives disclosures, and security lending.

Note 4 Describes the net pension liability, actuarial method and assumptions.

Note 5 Explains the System's tax status.

**Required Supplementary Information.** The Required Supplementary Information includes the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Net Pension Liability, Schedule of Employer Contributions and Schedule of Money-Weighted Rate of Return. These schedules will be presented over 10 years as information becomes available. A Summary of Significant Changes to the Pension System is also included. Other Supplementary Information for the Schedule of Administrative Expenses and the Schedule of Investment and Consultant Expenses are included. The Required Supplementary Information and Additional Supplementary notes are immediately following the Notes to the Financial Statements.

### **Financial Highlights**

The net position restricted for pension benefits as of June 30, 2015, and June 30, 2014, were \$1.28 billion and \$1.26 billion, respectively. The net position representing assets available to pay for current and future member pension benefits, increased by \$20.2 million or 1.6 percent.

Total additions to net position decreased by 60.0 percent or \$132.6 million from \$221.0 million in 2014 to \$88.4 million in 2015 primarily due to lower investment performance this year versus 2014.

Net investment income decreased 76.5 percent from \$176.6 million in 2014 to \$41.5 million in 2015. The net money-weighted rate of return on investments on a fair value basis was

approximately 3.4 percent in fiscal year 2015, and has decreased from 16.2 percent in fiscal year 2014.

Employer and employee contributions received totaled \$46.8 million, an increase of 5.6 percent or \$2.5 million compared to 2014 received contributions of \$44.3 million. The total employer contributions increased from \$34.2 million in fiscal year 2014 to \$37.9 million in fiscal year 2015.

Total deductions from fiduciary net position increased by \$5.5 million from \$62.7 million in 2014 to \$68.2 million in 2015. Member retirement benefit payments of \$67.3 million in 2015 make up the majority of total deduction and increased by \$5.6 million or 9.0 percent from \$61.7 million in 2014. The number of retired members and beneficiaries receiving a benefit payment increased 6.5 percent from 907 to 966 payees as of June 30, 2015.

The net pension liability as calculated per GASB 67 as of June 30, 2015, and June 30, 2014, were \$230.0 million and \$192.3 million, respectively. The net position as a percentage of total pension liability as of June 30, 2015, and June 30, 2014, were 84.8 percent and 86.8 percent, respectively. The net pension liability as a percentage of covered payroll has increased from 190.6 percent in 2014 to 223.6 percent in fiscal year 2015. The covered employee payroll increased from \$100.9 million in 2014 to \$102.8 million in 2015.

Administrative expense have remained stable at 0.03 percent of the value of net position for fiscal year 2015.

### **Financial Analysis**

**Plan Net Position.** As of June 30, 2015, The Police Officers Retirement System held a net position of \$1.28 billion restricted for pension benefits. Total assets as of June 30, 2015, were \$1.30 billion, representing an increase of \$32.78 million, or 2.6 percent over the previous fiscal year. The main components of the increase were securities lending collateral and the positive investment returns that resulted in a total investment of \$1.28 billion in fiscal year 2015 as compared to \$1.26 billion in fiscal year 2014.

For fiscal year 2015 the net position of the Police Officers Retirement System increased 1.6 percent resulting in a total net position value of \$1.28 billion, reflecting an increase of \$20.2 million over fiscal year 2014. The growth in net position was primarily due to slightly favorable investment performance that resulted in investment gains of \$41.6 million. The following table details the Police Officers Retirement System's net position for the current and prior fiscal years:

<u>Fiscal Year</u>	<u>Ending Balances (millions)</u>	<u>Net Change in Dollars (millions)</u>	<u>Net Change in Percent</u>
2014	\$1,261	\$158.2	14.4
2015	\$1,281	\$20.2	1.6

Total liabilities as of June 30, 2015, were \$20.4 million, representing an increase of \$12.6 million, or 162.8 percent, over the previous year. The upturn in total liabilities is the result of an increased level of securities lending activity and an increase in cash collateral received for securities on loan.

Securities lending cash collateral increased by \$12.4 million or 389.0 percent due to an increase in activities in the securities lending program. A separate account structure was implemented in fiscal year 2015 to replace a collective investment pool. The separate account now holds a large position in equity repurchase securities.

## Financial Section

The actuarial value of the assets as of the last valuation on July 1, 2014, was \$1.22 billion while actuarial liabilities as of the same period were \$1.44 billion. For purposes of funding, this resulted in a funding ratio of 85.0 percent. However, for purposes of GASB 67, the Total Pension Liability as of June 30, 2015, was \$1.51 billion compared to the Plan Fiduciary Net Position of \$1.28 billion, which results in a funding ratio of 84.8 percent.

The Plan's investments are exposed to various risks including interest rate, market and credit risks. These risks may be influenced by changes in economic conditions and market conditions. Therefore, it is reasonable to assume that there will be changes in the values of the investments held in trust which could materially affect the amounts reported in the financial statements. Detailed information on investment results are in the Investment Section of this report.

### Summary Schedule of Plan Fiduciary Net Position

	<u>2015</u>	<u>2014</u>	<u>Difference</u>	<u>Percent of Change</u>
<b>Assets</b>				
Total cash and investments	\$1,279,501,163	\$1,259,202,854	\$20,298,309	1.6%
Cash collateral, securities lending	15,634,903	3,198,250	12,436,653	388.9%
Capital assets, net	544	816	(272)	-33.3%
Total receivables	<u>6,143,332</u>	<u>6,103,015</u>	<u>40,317</u>	<u>0.7%</u>
<b>Total assets</b>	<u>1,301,279,942</u>	<u>1,268,504,935</u>	<u>32,775,007</u>	<u>2.6%</u>
<b>Liabilities</b>				
Purchase of investments	(2,789,710)	(2,853,630)	<u>63,920</u>	-2.2%
Cash collateral, securities lending	(15,634,903)	(3,198,250)	(12,436,653)	388.9%
Accounts payable and others	<u>(1,940,239)</u>	<u>(1,695,840)</u>	<u>(244,399)</u>	<u>14.4%</u>
<b>Total liabilities</b>	<u>(20,364,852)</u>	<u>(7,747,720)</u>	<u>(12,617,132)</u>	<u>162.8%</u>
<b>Net position restricted for pension</b>	<u>\$1,280,915,090</u>	<u>\$1,260,757,215</u>	<u>\$20,157,875</u>	<u>1.6%</u>

**Additions and Deductions.** Total additions to the retirement fund consist of contributions from employers and active members and changes in the value of assets. Total additions decreased by \$132.6 million or 60.0 percent in fiscal year 2015 attributed primarily to \$135.1 million, or 76.5 percent, less appreciation in the fair value of the investments. This is clearly a substantial reversal of the previous year's investment performance due to the favorable market environment in fiscal year 2014.

Total contributions for the fiscal year ended June 30, 2015, amounted to \$46.8 million. This was an increase of \$2.5 million when compared with the activity of fiscal year 2014. The employer contributions for fiscal year 2015 increased by 10.8 percent due primarily to an increase in the employer contribution rate from 33.9 percent to 36.8 percent of salary. Employee contributions decreased by almost 12.0 percent due to a reduction of the employee contribution rate from 10.0 percent to 8.65 percent during the fiscal year. The Fairfax County Board of Supervisors decided on this change to the retirement ordinance in order to make the benefit more comparable between the Police Officers and Uniformed Retirement Systems, recognizing that police officers do not participate in Social Security and the benefit structure and contribution rates are different between the two systems.

The system experienced a nearly 51.0 percent increase in net income from securities lending as a result of an upturn in lending activities during the year. Albeit positive, investment returns were

lower for fiscal year 2015 than 2014 reflecting moderate returns in the capital markets. Net investment income decreased from \$176.6 million in fiscal year 2014 to \$41.5 million in fiscal year 2015, which is consistent with the decrease in the net money-weighted investment rate of return from 16.2 percent for fiscal year 2014 to 3.4 percent for fiscal year 2015.

Total deductions to the retirement system consist of the payments of benefits to retirees and beneficiaries, the refund of contributions to former members, and the cost of administering the retirement system. The total deductions for fiscal year 2015 were \$68.2 million, an increase of \$5.5 million, or 8.7 percent, over fiscal year 2014. Regular pension benefit payments increased as the number of retirees and beneficiaries receiving benefit payments climbed to 966 from 907 in fiscal year 2014. Benefit payments also increased due to a cost-of-living increase of 0.2 percent, and higher average benefits for new retirees. Refunds reflected a 16.0 percent decrease due to lower employee turnover or separation in the fiscal year.

An actuarial valuation is performed annually by Cheiron. As of July 1, 2014, the date of the most recent actuarial valuation, the funded ratio of the system was 85.0 percent. This was an increase of 2.9 percent from the July 1, 2013, valuation funded ratio of 82.1 percent. The combination of liabilities, investment results, and member and employer contributions over the last year led the funding ratio to increase. Under GASB 67 calculation, using the June 30, 2014 data rolled forward to June 30, 2015, the plan fiduciary net position as a percentage of the total pension liability was 84.8 percent. It decreased from 86.8 percent in fiscal year 2014 primarily as a result of the slower growth in the plan fiduciary net position due to lower investment returns than forecasted.

**Summary of Additions and Deductions**

<b>Additions</b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>Difference</u></b>	<b><u>Percent of Change</u></b>
Employer contributions	\$37,867,181	\$34,178,960	\$3,688,221	10.8%
Plan Member contributions	8,889,931	10,091,331	(1,201,400)	-11.9%
Net income from investments	41,545,283	176,646,528	(135,101,245)	-76.5%
Net income from securities lending	<u>55,870</u>	<u>37,082</u>	<u>18,788</u>	<u>50.7%</u>
<b>Total Additions</b>	88,358,265	220,953,901	(132,595,636)	-60.0%
<b>Deductions</b>				
Benefit payments	67,276,713	61,715,421	5,561,292	9.0%
Refunds	480,447	572,284	(91,837)	-16.0%
Administrative expense	<u>443,230</u>	<u>431,064</u>	<u>12,166</u>	<u>2.8%</u>
<b>Total deductions</b>	<u>68,200,390</u>	<u>62,718,769</u>	<u>5,481,621</u>	<u>8.7%</u>
<b>Net increase/(decrease)</b>	<u>\$20,157,875</u>	<u>\$158,235,132</u>	<u>(\$138,077,257)</u>	<u>-87.3%</u>

**Contacting the System's Financial Management**

This financial report is designed to provide our membership, the Board of Trustees and the County's Board of Supervisors with a general overview of the System's financial condition. If you have any questions about this report or need additional information, contact the Fairfax County Retirement Administration Agency, 10680 Main Street, Suite 280, Fairfax, Virginia 22030. This report can also be found on the County's internet site at [www.fairfaxcounty.gov/retirement/](http://www.fairfaxcounty.gov/retirement/).

**Statement of Fiduciary Net Position**

As of June 30, 2015

**Assets**

Cash and short-term investments

Equity in County's pooled cash and temporary investments	\$1,692,924
Cash collateral received for securities on loan	15,634,903
Short-term investments	<u>44,075,294</u>

Total cash and short-term investments \$61,403,121

Capital Assets

Equipment, net	<u>544</u>	544
Total capital assets		544

Receivables

Accounts receivable	2,128,605
Accrued interest and dividends	2,110,672
Investment proceeds and other receivables	<u>1,904,055</u>

Total receivables 6,143,332

Investments, at fair value

Common and preferred stock	141,882,708
Fixed income	
Asset-backed securities	78,818,452
Corporate and other bonds	50,064,788
U.S. Government obligations	53,758,847
Pooled and mutual funds	<u>909,208,150</u>

Total investments 1,233,732,945

Total assets 1,301,279,942

**Liabilities**

Purchase of investments	2,789,710
Cash collateral received for securities on loan	15,634,903
Investment purchases and other liabilities	<u>1,940,239</u>

Total liabilities (20,364,852)

**Net position restricted for pensions \$1,280,915,090**

See accompanying notes to financial statements.



**Statement of Changes in Fiduciary Net Position**

For the Year Ended June 30, 2015

**Additions**

Contributions		
Employer	\$37,867,181	
Plan members	<u>8,889,931</u>	
Total contributions		\$ 46,757,112
Investment income		
Net appreciation in fair value of investments	27,340,929	
Interest and other investment income	11,235,460	
Dividends	<u>5,811,141</u>	
Total investment income	44,387,530	
Investment activity expense		
Management fees	(2,532,258)	
Custodial fees	(69,244)	
Consulting fees	(33,451)	
Allocated administration expense	<u>(207,294)</u>	
Total investment expense	<u>(2,842,247)</u>	
Net income from investment activities		41,545,283
Securities lending activities		
Securities lending income	80,324	
Securities lending expenses	<u>(24,454)</u>	
Net income from securities lending activities		<u>55,870</u>
Total net investment income		<u>41,601,153</u>
Total additions		<u>88,358,265</u>

**Deductions**

Annuity benefits	62,221,104	
Disability benefits	1,317,707	
Survivor benefits	3,737,902	
Refunds of employee contributions	480,447	
Administrative expense	<u>443,230</u>	
Total deductions		<u>68,200,390</u>
Net increase		20,157,875
Net position restricted for pensions		
Beginning of fiscal year		<u>1,260,757,215</u>
<b>End of fiscal year</b>		<b><u>\$1,280,915,090</u></b>

See accompanying notes to financial statements.

## **Notes to the Financial Statements**

As of and for the year ended June 30, 2015

The Fairfax County Police Officers Retirement System is a legally separate single-employer defined benefit pension plan established under the Code of Virginia to provide defined pension benefits to certain Fairfax County, Virginia (“County”) police. As such, the System is considered part of the County reporting entity and its financial statements are included in the County’s basic financial statements as a pension trust fund.

### **Note 1. Summary of Significant Accounting Policies**

*A. Basis of Accounting.* The System’s basic financial statements have been prepared under the accrual basis of accounting in accordance with accounting principles applicable to governmental units in the United States of America. Member and employer contributions to the plan are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due in accordance with the terms of the plan. The cost of administering the plan is paid by the System.

*B. Method Used to Value Investments.* Short-term investments are reported at cost, which approximates fair value. All other investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Asset-backed securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. Because of the inherent uncertainty in valuing these securities, the fair value may differ from the values that would have been used had a ready market for such securities existed. Accordingly, the realized value received upon the sale of the assets may differ from the fair value. The System records investment purchases and sales as of trade date. These transactions are not finalized until the settlement date, which occurs approximately three business days after the trade date. The amounts of trade receivables and payables are shown as receivables and payables on the Statement of Fiduciary Net Position. Cash received as collateral on securities lending transactions and investments made with such cash are reported as assets along with a related liability for collateral received. The market values of private investments and direct real estate are lagged by one quarter due to the timing of receipt of private market valuations and information.

*C. Equity in County’s Pooled Cash and Temporary Investments.* The System maintains cash with the County, which invests cash and allocates interest earned, net of a management fee, on a daily basis to the System based on the System’s average daily balance of equity in pooled cash. As of June 30, 2015, the bank balance of the County’s public deposits was either insured by the Federal Deposit Insurance Corporation or through the State Treasury Board pursuant to the provisions of the Security for Public Deposit Act. The County’s investments are exposed to various risks such as interest rate risk, market and credit risks. Such risks, and the resulting investment security values, may be influenced by changes in economic conditions and market perceptions and expectations. Accordingly, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

*Notes, continued on next page.*

**Note 2. Summary of Plan Provisions**

*A. Plan Description.* The System is a single-employer defined benefit pension plan. The plan covers County police officers who are not covered by other plans of the County or the Virginia Retirement System. Members sworn before January 1, 2013, are members of Option A. Members sworn on or after January 1, 2013, are members of Option B. Benefit provisions are established and may be amended by County ordinance. All benefits vest at five years of service. To be eligible for normal retirement, an individual must meet the following criteria: (a) if employed before July 1, 1981; attained the age of 55 or completed 20 years of service, or (b) if employed on or after July 1, 1981; attained the age of 55 or completed 25 years of service. The normal retirement benefit is calculated using average final compensation (i.e., the highest consecutive three years) and years (or partial years) of service at date of termination. The plan provides that unused sick leave credit may be used in the calculation of average final compensation by projecting the final salary during the unused sick leave period. Those sworn on or after January 1, 2013, may not use more than 2,080 hours of accrued sick leave toward service credit for retirement or Deferred Retirement Option program (DROP) entry. Unused sick leave is also used to increase years of service for calculating benefits and determining retirement eligibility.

The general provisions of the Police Officers Retirement System are as follows:

**Contribution Rate**

The member contribution rate is set by the County Ordinance and is currently 8.65 percent of base salary. The County contribution rate is set by the actuarial process and was 36.82 percent for fiscal year 2015. Police Officers do not participate in Social Security.

**Benefit**

The benefit is 2.8 percent of average final compensation (highest consecutive three years) multiplied by creditable service including sick leave; and it is then increased by 3.0 percent. Option B members have a cap of 2,080 hours of sick leave that will count towards retirement service credit.

**Benefit Limit**

The benefit is limited to the maximum amounts for qualified plans as set forth in Section 415 of the Internal Revenue Code. A separate nonqualified benefit restoration plan has been established for the payment of any benefit formula amount in excess of the Section 415 limit.

**Types of Benefits**

**Normal Retirement:**

Normal retirement occurs at either age 55 or at least 25 years of creditable service.

**Deferred Retirement Option Program (DROP):**

Those eligible for normal retirement may enter DROP for a period of up to three years. While participating in DROP, the member continues to work and receive a salary. In lieu of continuing to earn service credit, DROP participants accumulate a lump sum, including interest, payable at retirement. Option B members who enter DROP may use a maximum of 2,080 hours of sick leave towards retirement service credit.

*Notes, continued on next page.*

**Early Retirement:**

A member is eligible for early retirement upon attaining at least 20 years of creditable service.

**Deferred Vested Retirement:**

Deferred vested retirement is available for vested members (vesting is at 5 years of service) who leave their contributions in the System when they terminate employment. At age 55, these members are entitled to their normal retirement benefit based on service with the Police Department.

**Service-Connected Disability Retirement:**

Service-connected disability retirement is available for members, regardless of their length of service, who become disabled as a result of a job-related illness or injury. Benefits for total disability are 66.67 percent of the salary, reduced by any Workers' Compensation benefits. These benefits continue during the existence of the disability.

**Non-Service Connected Disability Retirement:**

Non-service connected disability retirement is available for vested members who become disabled due to an injury or illness that is not job-related. Normal retirement benefits are paid.

**Death Benefits:**

*If death occurs prior to retirement:* An automatic monthly benefit is payable to the member's spouse and children. This benefit equals \$2,252.59 for the spouse or surviving handicapped child (if there is no spouse), plus each eligible child receives \$901.03 up to a maximum total family benefit of \$4,505.17 (these benefits are indexed to inflation). If the death occurred in the line of duty, the spouse or surviving handicapped child (if there is no spouse) may elect to receive 66.67 percent of the member's regular salary at the time of death in lieu of the automatic benefits.

*If death occurs after retirement:* In addition to the automatic benefit detailed above, at the time the member retires, the plan provides for the member to elect survivor benefit options for the Surviving Spouse or a Handicapped Child at 100 percent, 66.67 percent or 50.0 percent of the retiree's benefit.

**Cost of Living Benefit**

Annual cost of living adjustments are provided to retirees and beneficiaries and are equal to the lesser of 4.0% or the percentage increase in the Consumer Price Index for the Metropolitan Statistical Area that includes Fairfax County.

Note: Detailed provisions may be found in the Retirement Handbook for Active Employees.

*B. Board of Trustees.* Seven members serve on the Fairfax County Police Officers Retirement System. Three of the members are citizens appointed by the Fairfax County Board of Supervisors. Two of the members are elected by Fairfax County Government Employees, and one of the members is elected by retiree representatives. The Director of Finance also serves as an Ex Officio member.

*Notes, continued on next page.*

*C. Membership.* At July 1, 2014, the date of the latest actuarial valuation, membership in the System consisted of:

Retirees and beneficiaries receiving benefits	966
Terminated plan members entitled to but not yet receiving benefits	36
Deferred Retirement Option Program (DROP) participants	80
Active plan members	<u>1,226</u>
<b>Total</b>	<b><u>2,308</u></b>

*D. Deferred Retirement Option Program.* Members eligible for normal retirement may elect to enter the DROP. As a DROP member, he or she will continue to work and receive a salary for a maximum period of three years while an amount equal to what could have been received as a retirement benefit is credited to his or her DROP account. The monthly benefit that will be credited to the DROP account is determined by the years of service and Average Final Compensation at the DROP entry date. During the DROP period, the retirement plan accumulates his or her accrued monthly benefit which is payable at the end of the DROP period. The DROP account balance is credited at an annual interest rate of 5%, compounded monthly. At the end of the DROP period, the DROP member must terminate employment with the Fairfax County Government and will begin receiving his or her monthly retirement benefit. Upon DROP exit, the retiree can elect to receive the balance of the DROP account in the form of a lump sum distribution, a rollover to another qualified plan (or IRA), or as addition to the monthly retirement annuity. The DROP balance as of June 30, 2015, was \$8,298,540.

*E. Contributions.* The contribution requirements of the System's members are established and may be amended by County ordinances. Member contributions are based on 8.65 percent of compensation for the year ended June 30, 2015. The County is required to contribute at an actuarially determined rate; the rate for the year ended June 30, 2015, was 33.09 percent of annual covered payroll. The decision was made to commit additional funding and a rate of 36.82 percent was adopted for fiscal year 2015. Total contributions for the fiscal year ended June 30, 2015, amounted to \$46.8 million.

*F. Deductions.* The deductions from the System include the payment of retiree and beneficiary payments, the refund of employee contributions to former members and administrative expenses.

*Notes, continued on next page.*

**Note 3. Investments**

*A. Investment Policy.* The authority to establish the System is set forth in Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia). Section 26-45.1 of the *Code of Virginia* (Code), and updated by Section 51.1-803 authorizes fiduciaries of the System to purchase investments *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 with the same aims. The Board shall also diversify such investments as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so.*

The System’s Board of Trustees has adopted a Statement of Investment Objectives and Policy which establishes a broad set of investment objectives, guidelines, risk tolerance and performance standards for the assets of the System. The Board recognizes that investing in worldwide capital markets inherently entails the assumption of risk. The Board believes that part of the risk involved in managing the System’s assets can be reduced by investing in diversified, lowly-correlated asset classes and employing different philosophies and investment management styles. The Board has selected a long-term strategic asset allocation strategy which provides a high degree of diversification, maintains appropriate asset coverage of plan liabilities, and also optimizes investment return. Investment decisions for these assets are made by the Board of Trustees or investment managers selected by the Board. The Board hires each of its investment advisory firms on the basis of its specific area of expertise as well as its fit with the total risk and return objectives of the System. Each manager exercises investment discretion around specifically mandated quality, concentration, benchmark and performance guidelines, and practices active risk controls in order to achieve the System’s investment expectations.

The following was the System’s adopted asset allocation policy as of June 30, 2015. Our asset allocation policy commonly exceeds 100% because we monitor the target exposures to both direct investments in asset classes plus notional exposure to asset classes through derivative positions such as Futures held at the portfolio level. We also commonly include notional exposures for select Investment Managers that have a mandate from the Board to provide the System with additional asset class exposure using leverage or derivatives.

<u>Asset Class</u>	<u>Target Exposure</u>
U.S. Equities	17.0%
International Equities	12.0%
Fixed Income	30.0%
Real Estate	5.0%
Alternatives	37.0%
Risk Parity	30.0%

*B. Concentrations.* For the most part, the overall investment policy does not identify a specific level of credit risk, interest rate risk or foreign currency risk. That is addressed at the individual account level. The guideline for “concentration of risk” is system-wide, however. The System does not hold investments (other than U.S. Government and U.S. Government-guaranteed obligations) in any one organization that represent 5.0 percent or more of net position available for benefits. All investments, except for the pooled and mutual funds, short-term investment fund and a short-term collateral investment pool are held by an unaffiliated custodian. There is no custodial credit

*Notes, continued on next page.*



risk since the custodian’s records establish the System’s interest in the securities and the custodian provides insurance for all custody assets.

The System’s fixed income portfolio shall be, on average, comprised of high-quality issues and limits are imposed on investment managers’ below-investment-grade holdings. Unless otherwise specified, if any security has a split rating, the higher of the two ratings is used for the purposes of meeting minimum quality standards.

*C. Rate of Return.* For the year ended June 30, 2015, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 3.4 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

*D.* The System’s investment quality ratings at June 30, 2015, were as follows:

<u>Type of Investment</u>	<u>Fair Value</u>	<u>Ratings</u>	<u>Percent of Fixed</u>
U. S. Government obligations	\$51,658,566	AA	28.3%
	2,100,281	CCC	1.1%
Corporate & other bonds	831,938	AAA	0.5%
	3,033,327	A	1.7%
	7,881,750	BBB	4.3%
	18,137,271	BB	9.9%
	13,993,334	B	7.7%
	3,562,329	CCC	2.0%
	39,675	CC	0.0%
	2,585,164	Unrated	1.4%
Asset-backed securities	32,516,797	AA	17.8%
	4,143,382	BBB	2.3%
	1,025,659	BB	0.6%
	1,012,501	B	0.6%
	8,616,256	CCC	4.7%
	390,466	CC	0.2%
	14,832,376	D	8.1%
	<u>16,281,015</u>	Unrated	<u>8.9%</u>
<b>Total fixed income</b>	<b><u>\$182,642,087</u></b>		100.0%
<b>Short-term investments</b>			
Cash and cash equivalents	\$3,377,019	Unrated	
Police Enhanced STIF*	<u>40,698,275</u>	Unrated	
<b>Short-term investments</b>	<b><u>\$44,075,294</u></b>		

\*Short Term Investment Funds

*Notes, continued on next page.*

***Financial Section***

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As of June 30, 2015, the fixed income portfolio consisted of 54.9 percent invested in investment grade securities, 34.8 percent invested in securities rated below-investment-grade and 10.3 percent invested in unrated securities.

The Barclays Capital Aggregate Bond Index (BCAG) is the standard benchmark against which the industry and the System's Board measures its fixed income portfolio performance and volatility. The System's fixed income managers have discretion, within circumscribed limits, to extend the duration of their portfolios beyond that of the BCAG if they forecast falling interest rates (and thus higher bond prices). Conversely, if managers anticipate that the general level of interest rates will rise, they have the ability to shorten the duration of their portfolio and thus reduce the portfolio's sensitivity to rising rates.

E. The System's investments' sensitivity to interest rates at June 30, 2015, were as follows:

<b><u>Investment Type</u></b>	<b><u>Fair Value</u></b>	<b><u>Option - Adjusted Durations (yrs)</u></b>	<b><u>Percentage of Fixed</u></b>
U.S. Government obligations	\$53,758,847	7.3	29.4%
Corporate and other bonds	50,064,788	4.9	27.5%
Asset-backed securities	<u>78,818,452</u>	<u>4.2</u>	<u>43.1%</u>
<b>Total fixed income</b>	<b><u>\$182,642,087</u></b>	<b><u>5.3</u></b>	<b><u>100.00%</u></b>
<b>Short-term investments</b>			
Cash and cash equivalents	\$3,777,019	0.0	
Police Enhanced STIF	<u>40,698,275</u>	0.1	
<b>Short-term investments</b>	<b><u>\$44,075,294</u></b>		

As of June 30, 2015, the System's overall fixed income portfolio option-adjusted duration was 5.3 years. BCAG's established option-adjusted duration was 5.6 years.

F. Short term investments of \$44.1 million includes a position of \$40.7 million of uninvested cash held by our investment managers and cash held by the system in an enhanced short term investment fund managed by our custodian.

*Notes, continued on next page.*

G. Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of the investment. The System's investments at June 30, 2015, held in currencies other than U.S. dollars were as follows:

<u>International Securities</u>	<u>Short Term Investments &amp; Other</u>	<u>Equity</u>	<u>Convertible and Fixed Income</u>	<u>Total</u>
Australian Dollar	\$4	\$5,166,602	\$487,665	\$5,654,271
Brazil Real			917,417	917,417
Canadian Dollar	941	2,085,979		2,086,920
Danish Krone		6,088,971		6,088,971
Euro Currency Unit	1	21,258,370	77,937	21,336,308
Hong Kong Dollar		8,472,179		8,472,179
Indian Rupee			859,052	859,052
Japanese Yen	12,520	20,778,144		20,790,664
Mexican New Peso	6,542	1,005,998	2,231,111	3,243,651
Philippine Peso			1,107,117	1,107,117
Pound Sterling	10	13,254,052	345,246	13,599,308
S. African Comm Rand		782,338		782,338
Singapore Dollar	1	2,509,577	408,844	2,918,422
South Korean Won		1,219,343		1,219,343
Swedish Krona		1,955,539		1,955,539
Swiss Franc		4,807,003		4,807,003
Thailand Baht		346,772		346,772
Other Currencies	_____	<u>567,878</u>	<u>327,863</u>	<u>895,741</u>
<b>Total International</b>		<b><u>\$20,019</u></b>	<b><u>\$90,298,745</u></b>	<b><u>\$6,762,252</u></b>
			<b><u>\$6,762,252</u></b>	<b><u>\$97,081,016</u></b>

*H. Derivative Financial Instruments.* In accordance with the Board's investment policies, the System regularly invests in derivative financial instruments with off-balance-sheet risk in the normal course of its investing activities to enhance return on investment and manage exposure to certain risks within the System. The System also enters into derivative transactions to gain exposure to currencies and markets where derivatives are the most cost-effective instrument. Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates or financial indices. During fiscal year 2015, the System invested directly in various derivatives including asset-backed securities, collateralized mortgage obligations, exchange-traded futures contracts, forward currency contracts, options, swaps, and floating rate securities. Some securities, such as structured notes, can have derivative-like characteristics where the return may be linked to one or more indexes. Others such as asset-backed securities, like collateralized mortgage obligations (CMOs), are sensitive to changes in interest rates and pre-payments. It should also be noted that the System has exposure to derivatives indirectly through its ownership interests in certain hedge funds, mutual funds and commingled funds which may use, hold or write derivative financial instruments.

Derivative investments may involve, to varying degrees, elements of credit and market risk in excess of amounts recognized on the financial statements. Market risk results from fluctuations in

*Notes, continued on next page.*

interest rates and currency rates. The credit risk of these investments is associated with the creditworthiness of the related parties to the contracts. The System could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. Holders of futures contracts look to the exchange for performance under the contract and not to the other party holding the offsetting futures position. Accordingly, the amount at risk due to nonperformance of counterparties to futures contracts is minimal. For counterparties involving over the counter derivatives, the Board seeks to control this risk through counterparty credit evaluations, counterparty credit limits, and exposure monitoring procedures conducted by investment managers and staff. To address counterparty risk, the System instructs our investment managers who use swaps, forwards, and options to only enter into contracts with counterparties rated at investment grade of BBB or better by at least one nationally recognized rating agency.

At June 30, 2015, the System held the following two types of derivative financial instruments: futures and currency forwards. Futures and currency forwards contracts provide the System with the opportunity to build passive benchmark positions, enhance returns, and gain market exposure to various indices in a more efficient way and at lower transaction costs. Credit risks depend on whether the contracts are exchange-traded or exercised over-the-counter. Market risks arise from adverse changes in market prices, interest rates and foreign exchange rates.

Investment managers are prohibited from purchasing securities on margin or using leverage unless specifically permitted within the investment manager's guidelines. Derivative instruments covered under the scope GASB 53 are reported at fair value. The change in fair value of derivative instruments that are used for investment purposes are reported within the investment revenue classification. Gains and losses on derivative securities are determined based upon fair values as determined by our custodian and recorded in the Statement of Changes in Fiduciary Net Position.

*Futures.* Futures contracts are contracts to deliver or receive securities at a specified future date and at a specified price or yield. Futures contracts are traded on organized exchanges (exchange-traded) and typically require an initial margin (collateral) in the form of cash or marketable securities. The net change in the futures contract value is settled daily, in cash, with the exchanges. The net gains or losses resulting from the daily settlements are included in the System's financial statements. Holders of futures contracts look to the exchange for performance under the contract and not to the entity holding the offsetting futures position. Accordingly, the amount at risk posed by nonperformance of counterparties to futures contracts is minimal. The notional value of the System's investment in futures contracts at June 30, 2015, is as follows:

<b>Equity Futures:</b>	<b><u>Base Exposure</u></b>	<b><u>Notional Cost</u></b>
Long	\$98,508,480	\$100,750,765
<b>Total Equity Futures:</b>	<b>\$98,508,480</b>	<b>\$100,750,765</b>

*Notes, continued on next page.*

*Currency Forwards.* Currency forwards represent foreign exchange contracts and are used to effect settlements and to protect the base currency value of portfolio assets denominated in foreign currencies against fluctuations in the exchange rates of those currencies or to gain exposure to the change in market value of a specific currency. A forward foreign currency exchange contract is a commitment to purchase or sell a foreign currency at a future date and at a negotiated price. The credit risk of currency contracts that are exchange-traded lies with the clearinghouse of the exchange where the contracts are traded. The credit risk of currency contracts traded over-the-counter lies with the counterparty, and exposure usually is equal to the unrealized profit on in-the-money contracts. All counterparties are rated A or better. The market risk in foreign currency contracts is related to adverse movements in currency exchange rates.

The following is the summary information on the System's currency forward contracts at June 30, 2015:

<b>Foreign Currency Contracts Purchased</b>	<b>Notional</b>	<b>Unrealized</b>
Mexican New Peso	<b><u>Local Currency</u></b>	<b><u>Gain/Loss</u></b>
	(4,700,000)	\$4,781
<b>Foreign Currency Contracts Sold</b>	<b>Notional</b>	<b>Unrealized</b>
US Dollar	<b><u>Local Currency</u></b>	<b><u>Gain/Loss</u></b>
	303,867	\$0
<b>Net Unrealized Gain(Loss) on Foreign Currency Spot and Forward Contracts</b>		<b><u>\$4,781</u></b>

*Notes, continued on next page.*

Financial Section

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*I. Securities Lending.* The Board of Trustees' policies permit the System to lend its securities to broker-dealers and other entities (borrowers) for collateral that will be returned for the same securities in the future. The System's custodian is the agent in lending the plan's domestic securities for collateral of 102.0 percent and international securities of 105.0 percent. The custodian receives cash or securities as collateral from the borrower. All securities loans can be terminated on demand by either the System or the borrower. Securities received as collateral are not reported as assets and liabilities on balance sheets since the Retirement Administration Agency does not have the ability to pledge or sell the collateral securities absent borrower default.

The following represents the balances relating to the securities lending transactions at June 30, 2015:

<u>Securities Lent</u>	<u>Underlying Securities</u>	<u>Cash Collateral Investment Value</u>	<u>Securities Collateral Investment Value</u>
Lent for cash collateral			
Corporate and others	\$196,276	\$200,850	
Common and preferred stock	15,128,803	15,434,053	
Lent for securities collateral			
US Government securities	1,652,267		\$1,685,993
Common and preferred stock	<u>9,407,024</u>	_____	<u>10,707,838</u>
<b>Total</b>	<b><u>\$26,384,370</u></b>	<b><u>\$15,634,903</u></b>	<b><u>\$12,393,831</u></b>

The System did not impose any restrictions during fiscal year 2015 on the amounts of loans the lending agent made on its behalf. At year end, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. The custodian provides full indemnification to the System for any losses that might occur in the program due to the failure of a broker/dealer to return a borrowed security or failure to pay the System income earned on the securities while on loan. Cash collateral is invested in a separate account with the lending agent which includes a larger allocation than last year to equity repurchase securities. At June 30, 2015, cash collateral had a weighted-average maturity of one day. The maturities of the resulting investments generally match the maturities of the securities lending arrangements. While the System bears no credit risk from the failure of a borrower to return a borrowed security, it does bear risk from investing the collateral. As noted above, cash collateral is invested in the lending agent's collective investment pool. Should the collective investment pool experience a period of poor investment returns due to market turbulence or other reasons, the System can record unrealized losses on a mark-to-market basis or realized losses from the default of securities in the investment pool.

*Notes, continued on next page.*



**Note 4. Net Pension Liability, Actuarial Method and Assumptions**

*A. Net Pension Liability.* The components of the net pension liability at June 30, 2015, were as follows:

Total pension liability	\$1,510,917,235
Plan fiduciary net position	<u>1,280,915,090</u>
Net pension liability	\$230,002,145
Plan fiduciary net position as a percentage of the total pension liability	84.8%

*B. Actuarial Methods and Assumptions.* The Total Pension Liability was determined by an actuarial valuation as of July 1, 2014, using the following actuarial assumptions, applied to all periods included in the measurement.

Discount rate, net of plan investment expenses	7.5%
Inflation	3.0%
Salary increases, including inflation	3.0% + merit
Investment rate of return, net of plan investment expenses	7.5%
Municipal bond rate	N/A
Projected period of unfunded benefit payments	None

The actuarial assumptions used have been recommended by the actuary and adopted by the System’s Board of Trustees based on the most recent review of the System’s experience completed in 2011. In the Schedule of Changes in Net Pension Liability, the beginning of year amount differs from the actuarial accrued liability listed in the July 1, 2014, actuarial valuation report because GASB 67 disclosures use a rollforward methodology and did not include the liability gain that was measured in the 2014 valuation.

The rate of employer contributions to the plan is composed of normal cost, amortization of the unfunded actuarial accrued liability and an allowance for administrative expenses. The normal cost is a level percent of payroll cost which, along with the member contributions, will pay for projected benefits at retirement for each plan participant. The actuarial accrued liability is that portion of the present value of projected benefits that will not be paid by future normal employer costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial accrued liability. The allowance for administrative costs is based upon the plan’s actual administrative expenses.

The County is required to contribute at an actuarially determined rate; the rate for the year ended June 30, 2015, was 33.09 percent of annual covered payroll. The decision was made to commit additional funding and a rate of 36.82 percent was adopted for fiscal year 2015. Since the PORS’s adjusted funded ratio (the ratio of the sum of the actuarial value of assets and commitments already made to fund changes to the actuarial accrued liability) has fallen below 90.0 percent, the contribution rate includes a margin to amortize this shortfall back to the 90.0 percent level. In fiscal year 2011 the target was increased to a 91.0 percent level, with the 2015 fiscal year contribution it was increased to 93.0 percent, and with the 2016 fiscal year contribution it will be increased again to 95.0 percent. The intent of the County is to continue increasing the amortization target until full actuarial funding has been restored. The goal is to reach an amortization target of 100.0 percent in contributions at or before fiscal year 2020.

*Notes, continued on next page.*

Mortality rates with adjustments for mortality improvements were based on the RP 2000 Mortality tables projected to 2015 using Scale AA.

For purposes of the GASB 67, the Total Pension Liability (TPL) was determined by applying standard update procedures to roll forward to the June 30, 2015, fiscal year-end, amounts from an actuarial valuation as of July 1, 2014.

The actuarial assumptions used in the July 1, 2014, valuation were based on the results of an actuarial experience study for the period July 1, 2005 to June 30, 2010.

*C. Long Term Expected Rate of Return.* The long term rate of return on pension plan 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 System's target asset allocation as of June 30, 2015, are summarized below.

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
U.S. Equities	4.5%
International Equities	5.1%
Fixed Income	2.0%
Real Estate	5.3%
Alternatives	6.0%
Risk Parity	6.0%

*D. Discount Rate.* The discount rate used to measure the total pension liability was 7.5 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 County 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.

In making this determination we assumed the outflows would equal the anticipated benefit payments from the 2014 actuarial valuation. The administrative expenses attributable to current actives were assumed to equal 0.30 percent of covered payroll. The inflows to the plan were assumed to continue at the average aggregate rate for the 2014 active population of 8.65 percent of payroll and County contributions were projected at 37.98 percent for fiscal years 2016, growing to 39.37 percent from 2021 through 2032. After that time the County contribution was assumed to drop to the normal cost plus expenses (22.25 percent) since the unfunded actuarial liability is expected to be fully funded by that time.

*Notes, continued on next page.*

We also used the actual Fiduciary Net Position at June 30, 2015, in the projections.

*E. Sensitivity of the Net Pension Liability to Changes in Discount Rate.* The following presents the net pension liability of the County, calculated using the discount rate of 7.5 percent, as well as what the County's net pension liability would be if it were calculated using the discount rate that is 1-percentage-point lower (6.5 percent) or 1-percentage-higher (8.5 percent) than the current rate.

	<b>1% Decrease</b>	<b>Discount Rate</b>	<b>1% Increase</b>
	<b><u>6.50%</u></b>	<b><u>7.50%</u></b>	<b><u>8.50%</u></b>
Net Pension Liability	\$487,568,302	\$230,002,145	\$27,022,385
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	72.4%	84.8%	97.9%

**Note 5. Income Taxes**

The Internal Revenue Service issued the System a determination letter which stated that the System and its underlying trust qualify under the applicable provisions of the Internal Revenue Code and therefore are exempt from federal income taxes.

**Required Supplementary Information (unaudited)**

**Schedule of Changes in the Net Pension Liability and Related Ratios**

Year Ended June 30

	<u>2015</u>	<u>2014</u>
Total Pension Liability		
Service cost	\$30,389,897	\$30,858,609
Interest	106,739,905	102,492,490
Changes in benefit terms	0	0
Differences between expected and actual experience	(11,515,790)	0
Changes in assumptions	0	0
Benefit payments, including refunds of member contributions	<u>(67,757,160)</u>	<u>(62,287,705)</u>
Net change in Total Pension Liability	57,856,852	71,063,394
Total Pension Liability - beginning	<u>1,453,060,383</u>	<u>1,381,996,989</u>
Total Pension Liability - ending (a)	<u>1,510,917,235</u>	<u>\$1,453,060,383</u>
Plan Fiduciary Net Position		
Contributions - employer	\$37,867,181	\$34,178,960
Contributions - member	8,889,931	10,091,331
Net investment income	41,601,153	176,683,610
Benefit payments, including refunds of member contributions	(67,757,160)	(62,287,705)
Administrative expenses	<u>(443,230)</u>	<u>(431,064)</u>
Net change in Plan Fiduciary Net Position	20,157,875	158,235,132
Plan Fiduciary Net Position - beginning	<u>1,260,757,215</u>	<u>1,102,522,083</u>
Plan Fiduciary Net Position - ending (b)	<u>1,280,915,090</u>	<u>\$1,260,757,215</u>
Net Pension Liability (Asset) - ending (a)-(b)	<u>\$230,002,145</u>	<u>\$192,303,168</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	84.8%	86.8%
Covered Employee Payroll	<u>\$102,844,055</u>	<u>\$100,912,194</u>
Net Pension Liability as a Percentage of covered Employee Payroll	223.6%	190.6%

The total pension liability contained in this schedule was calculated by Cheiron, the System's Actuary. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the Police Officers Retirement Systems.

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

*RSI, continued on next page.*

**Schedule of Net Pension Liability**

Year Ended June 30

Date	<b><u>2015</u></b>	<b><u>2014</u></b>
Total Pension Liability	\$1,510,917,235	\$1,453,060,383
Plan Fiduciary Net Position	\$1,280,915,090	\$1,260,757,215
Net Pension Liability	\$230,002,145	\$192,303,168
Plan Fiduciary Net Position as a Percentage of the Total Plan Liability	84.8%	86.8%
Covered employee payroll	\$102,844,055	\$100,912,194
Net pension Liability as a percentage of covered payroll	223.6%	190.6%

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

**Schedule of Money-Weighted Rate of Return**

<b>Fiscal Year</b>	<b>Annual Money-Weighted Rate of Return, Net of Investment Expense</b>
2015	3.4%
2014	16.2%

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

*RSI, continued on next page.*

**Schedule of Employer Contributions**

<b>Fiscal Year</b>	<b>Actuarial Determined Contribution</b>	<b>Contributions in relations to the Actuarial Determined Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Employee Payroll</b>	<b>Contributions as a Percentage of Covered Payroll</b>
2015	\$37,867,181	\$37,867,181	\$-	\$102,844,055	36.82%
2014	34,178,960	34,178,960	-	100,912,194	33.87%
2013	34,011,347	34,011,347	-	102,598,332	33.15%
2012	31,700,690	31,700,690	-	101,280,160	31.30%
2011	29,174,611	29,174,611	-	103,054,083	28.31%
2010	23,766,626	23,766,626	-	104,057,032	22.84%
2009	23,508,402	23,508,402	-	102,926,454	22.84%
2008	21,447,907	21,447,907	-	102,132,890	21.00%
2007	19,222,753	19,222,753	-	98,326,102	19.55%
2006	16,727,287	16,727,287	-	90,711,969	18.44%

**Notes to Schedule**

Valuation Date 7/1/2014  
 Timing Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the plan year

**Key Methods and Assumptions Used to Determine Contribution Rates:**

Actuarial cost method Entry Age Normal  
 Asset valuation method 3-year smoothed market  
 Amortization method Corridor method, amortize liability outside of 90% corridor over an open 15 year period with level % of payroll. In fiscal year 2011 through 2015 the target was increased to a 93% level.  
 Discount rate 7.5%  
 Amortization growth rate 3.5%  
 Price inflation 3.0%  
 Salary increases 3.0% plus merit component based on employee's years of service  
 Mortality Sex distinct RP-2000 Combined Mortality projected to 2015 using Scale AA

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2015, can be found in the July 1, 2013, actuarial valuation report.

*RSI, continued on next page.*

**Summary of Significant Changes to the Pension System**

The summary of employer and employee contribution rates during the past 5 years and other significant changes in the pension system are as follows:

<u>Fiscal Year</u>	<u>Contribution Rates</u>	
	<u>Employer</u>	<u>Employee</u>
2015	36.82%	8.65%
2014	33.87%	10%
2013	33.15%	10%
2012	31.30%	10%
2011	28.31%	10%

**July 2014** Member contribution rate decreased from 10% to 8.65%

**January 2013** Police officers sworn on or after January 1, 2013, will be automatically enrolled in Option B. The maximum amount of accrued sick leave is capped at 2,080 hours.



**Additional Supplementary Information (Unaudited)**

**Schedule of Investment & Consultant Expenses**

For the Year Ended June 30, 2015

Activity		
<u>Investment expenses</u>		
Investment manager fees		\$2,532,258
Custodial Fees		69,244
<u>Other consultant expenses</u>		
Consulting fees		<u>33,451</u>
<b>Total Investment and Consulting Fees</b>		<b><u>\$2,634,953</u></b>

**Schedule of Administrative Expenses**

For the Year ended June 30, 2015

Personnel services		
Salaries and wages	\$210,998	
Fringe benefits	<u>89,230</u>	
Total personnel services		\$300,228
Professional services		
Actuarial	36,264	
Audit	6,933	
Legal	<u>8,970</u>	
Total professional services		52,167
Communications		
Phone charges	6,047	
Printing, binding and copying	1,748	
Postage	<u>3,125</u>	
Total communications		10,920
Supplies		
Office supplies	<u>1,845</u>	
Total supplies		1,845
Other services and charges		
Board and staff travel and development	15,475	
Professional memberships	601	
Professional subscription	275	
Insurance	5,623	
Building rent	18,334	
Depreciation Expense	181	
Computer systems	31,976	
Other operating	<u>5,605</u>	
Total other services and charges		<u>78,070</u>
<b>Total Administrative Expenses</b>		<b><u>\$443,230</u></b>



## County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

November 23, 2015

Dear Members of the Board of Trustees:

Fiscal year 2015 was a challenging environment for most major asset classes. Only select segments of the U.S. equity markets approached or exceeded our target 7.5% actuarial return. The major U.S. bond market benchmarks produced modest low single digit returns that are not inconsistent with a low interest rate environment. On the international side, non - U.S. equities and fixed income mostly generated negative returns as the U.S. dollar strengthened and commodity market turmoil heightened. Returns for risk parity managers were also under pressure and mostly negative as commodity prices fell by over 25% and other real assets such as TIPS posted low single digit declines.

For most of the past 12 months, the Federal Reserve has been a headline story as it decides when, how quickly and for how long to raise interest rates. On one side are the pundits that argue that the U.S. and global economy haven't recovered sufficiently to withstand a rate increase and on the other are those that contend that the Fed needs to eventually bring to an end this unnatural period of low interest rates to help normalize the investment landscape. Since eighty percent of the world's central banks are currently in an easing cycle, by raising interest rates the Fed would be at odds with what the global norm is. In contrast, the ECB has indicated it intends to maintain its QE program and rates through at least September 2016. In part because the U.S. Dollar is the world's reserve currency and in part due to the increasing codependency of the U.S. and international markets, Chairman Yellen is trying to balance not only what is good monetary policy for the U.S. with what is best globally. In any event, once the Fed decides to act, it will be the first rate increase since August 2006. The Fed would clearly like to restock its toolbox to be able to reduce interest rates and stimulate the economy in the next economic downturn.

Key global concerns that came into play during the year include the Greek political drama and debt negotiations that were front and center. Questions arose again about the European Union's ability to maintain solidarity among its members with austerity measures being such a prominent tool. The Ukraine/Russia conflict and continued geopolitical tensions across the Middle East were also major factors moving and concerning markets. A slowdown in China's growth rate and the related lower consumption of raw materials and a continued excess of oil globally due in part to increased supply from U.S. fracking resulted in multi-year lows in many commodities but especially oil that has



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[www.fairfaxcounty.gov/retirement/](http://www.fairfaxcounty.gov/retirement/)

resulted in global trade imbalances and debt and equity market disruptions as well. Weak emerging market economies impacted by weak currencies, low commodity prices, and high debt levels risk dragging the global economy into recession as real GDP growth in emerging markets has fallen to 15-year lows.

Domestically, the harsh U.S. winter weather led to a string of disappointing economic data that led the Fed to question its positive view of the economy. In spite of the harsh winter, the employment numbers have improved to 5.3% unemployment in June from 6.1% 12 months ago and real GDP growth has been a solid 2.9% for the fiscal year ending June.

Another focus of the market is that the dollar has strengthened significantly over the last 12 months and that has made U.S. goods less competitive and increased the fear that any Fed tightening will continue to support a stronger dollar and reduce the attractiveness of U.S. goods and services. In the first quarter of 2015 alone, the dollar index soared by 9% and for the full fiscal year by 19.8%. There has been a related material change in trade flows and distress in the credit markets especially in energy and material related credits. Currency devaluations like those that China has recently undertaken are more likely as a viable means to attempt to correct the balance of trade imbalances between countries as normal monetary policy options become limited.

Looking forward, the valuation landscape is as always unpredictable. Equities are not cheap by many historical standards and have had a great run since the lows of 2009 and low interest rates put a ceiling on fixed income returns. However, equities look more reasonably priced considering we are in a low interest rate and low inflation environment. As long-term investors, we strive to stay fully invested and attempt to maintain a risk balanced approach in order to meet or exceed our long-term return objective of 7.5%. We continue to believe in the value of diversification and have a healthy allocation to absolute return managers and mandates as an uncorrelated source of return versus traditional asset classes.

### **Domestic Equity Markets**

U.S. equity markets continued to move higher for the fiscal year ending in June 30, 2015, producing positive returns across the board. Throughout the year, equity investors faced headwinds of slowing equity returns. Although value, growth and core indexes were all positive for the year ending in June they were muted relative to fiscal year 2014. Indications of full valuations have been met with hope for continued growth, but as the markets have sustained momentum-driven results, they appear to be moving at a more cautious pace. Large cap stocks outperformed small cap stocks by +0.9% as the Russell 1000 returned +7.4% and the Russell 2000 returned +6.5%. Large cap growth outperformed large cap value with the Russell 1000 Growth up +10.6% compared to +4.1% for the Russell 1000 Value. The same trend held true to an even greater degree in smaller cap names as the Russell 2000 Growth returned +12.3% as compared with the Russell 2000 Value Index return of +0.8%.

### **Domestic Fixed Income Markets**

Bond markets produced modest returns over the twelve-month period ending June 30, 2015. Monetary policy divergence was the dominant macro theme during the year, with the Federal Reserve tapering its quantitative-easing (QE) program and moving gently towards policy-rate

normalization, while the European Central Bank and the Bank of Japan either launched or expanded their own asset purchase programs. U.S. economic growth accelerated early in the period, only to lose momentum following a meaningful appreciation in the foreign exchange value of the U.S. dollar. Inflation fell sharply during the fiscal year, driven by a steep fall in the price of oil and other commodities, while interest-rate volatility trended higher. The 10-year U.S. Treasury note ended the fiscal year yielding 2.4%, 18 basis points lower than where it had begun the period. High-quality bonds performed reasonably well under these conditions, with the Barclays U.S. Treasury Bond Index, the Barclays U.S. Aggregate Bond Index, and the Barclays U.S. Credit Index all producing returns of 2.3%, 1.9%, and 0.9%, respectively. Leveraged loans also performed well, benefiting from the widely-held view that the Federal Reserve would begin raising short-term interest rates in 2015. The Barclays U.S. High-Yield Loan Index produced a solid return of 2.0% during the period, but such performance proved to be an outlier, as lower-quality bonds generally struggled to overcome the deflationary consequences of slow economic growth, a strong U.S. dollar, and lower commodity prices. The Barclays U.S. Corporate High-Yield Bond Index returned -0.4%.

### **International Markets**

Non-U.S. equity markets were driven lower as commodities widely fell, global economic growth moderated, and the U.S. dollar strengthened. While the U.S. Federal Reserve shifted to a neutral stance from easing, and began to signal potential tightening, other key central banks in China, Europe, and Japan were all engaged in stimulus activity. In a broadly declining commodity market oil (down 45%) and gold (down 11%) were among the headliners. Against this backdrop, Non-U.S. developed markets, as measured by the MSCI World ex-U.S. Index fell by roughly 5% in dollar terms. Emerging markets equities, as measured by the MSCI Emerging Markets Index fell by close to 15%. Emerging market debt has also been a big loser for the year ending June 30, 2015 following a stellar 2014. According to the JPM GBI-EM Global Diversified Index, emerging market debt posted a return of -15.4%.

### **Officers System**

The Police Officers Retirement System operates a balanced and diversified investment program with disciplined asset re-balancing to achieve strategic long-term goals. This disciplined investment process has been effective in achieving a long-term record of consistent asset growth.

For fiscal year 2015, investments provided a return of 3.5%, gross of fees (3.4%, net of fees). The System's annualized rates of return, gross of fees, were 9.8% (9.6%, net of fees) over the last three years and 10.6%, (10.4%, net of fees), over the last five years. The System's returns ranked in the 36th percentile of The Bank of New York Mellon universe of public plans in 2015, in the 69th percentile for the latest 3-year period, and in the 58th percentile of public plans for the last 5 years.

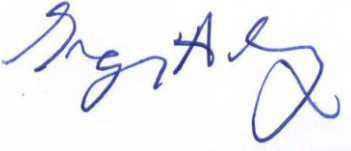
During the past twelve months, we continue to focus on overall portfolio management, monitoring the financial markets and maintaining a high quality group of investment managers. In the risk parity space, we replaced our Bridgewater All Weather allocation with Bridgewater's Optimal Portfolio and increased the investment policy target exposure to Alternatives by 10% to account for Optimal Portfolio's exposure to alpha. The Vanguard Corporate High Yield Fund was temporarily added to the Fixed Income manager lineup replacing Gramercy Emerging Markets Multi-Strategy. Finally the Board approved a 4% investment allocation in the AQR Style Premium Fund and a 4% position allocation in Barclay's Aggregate Futures contracts with funding coming

*Investment Section*

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from the redemption of the PIMCO Bonds + PARS III fund early in the next fiscal year. Finally, the System's security lending program was amended to add a separate account for the investment of cash collateral, replacing a commingled account, which will allow for the use of equity repurchase and provide for indemnification from loss on repurchase transactions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Greg A. Samay". The signature is fluid and cursive, with the first name "Greg" and the last name "Samay" clearly visible.

Gregory A. Samay  
Chief Investment Officer

**Investments by Category and Investment Manager \*\***

June 30, 2015

<i>Asset Class</i> <b>Manager</b>	<b>Investment Style</b>	<b>Total Fair Value</b>	<b>% of Total Portfolio</b>
<b><i>U.S. Equities</i></b>			
AQR Capital Management*	Small Cap Core	\$43,909,124	3.4%
FrontPoint Partners*	Enhanced S&P 500 Index	237,866	0.0%
PIMCO StocksPlus PARS*	Enhanced S&P 500 Index	63,360,330	4.9%
Starboard Value and Opportunity*	Small Cap Value Activist	39,013,450	3.0%
<b><i>International Equities</i></b>			
Acadian Asset Management*	Developed Markets Small Cap	17,867,146	1.4%
Acadian Asset Management*	Emerging Markets	27,205,511	2.1%
First Eagle*	Developed Markets Value	45,610,895	3.6%
WCM Investment Management	Developed Markets Growth	47,391,920	3.7%
<b><i>Fixed Income</i></b>			
DoubleLine Capital	Mortgage-Backed Securities	88,182,182	6.9%
Loomis, Sayles & Company	High Yield Bonds	64,475,928	5.0%
Oaktree Capital Management*	Convertible Bonds	30,176,524	2.4%
Pacific Investment Management Co. (PIMCO)*	Bank Recapitalization/Value	21,230,756	1.7%
Pacific Investment Management Co. (PIMCO)*	Distressed Senior Credit	36,691,380	2.9%
Pacific Investment Management Co. (PIMCO)*	Enhanced Barclays Aggregate Index	51,917,976	4.1%
SJC Direct Lending Fund*	Direct Lending	28,971,172	2.3%
The Clifton Group	TIPS	51,967,741	4.1%
The Vanguard Group*	Corporate High Yield	9,645,105	0.8%
<b><i>Real Estate</i></b>			
Cohen & Steers Capital Management	Global Real Estate Securities	63,109,181	4.9%
<b><i>Alternatives</i></b>			
BlueCrest Capital Management*	Multi-Strategy Fund	37,940,818	3.0%
Bridgewater Pure Alpha*	Global Macro Absolute Return Fund	54,000,299	4.2%
King Street Capital*	Long/Short Credit, Event Driven	45,394,440	3.5%
Systematica Investment Services*	Global Macro Absolute Return Fund	27,656,021	2.1%
<b><i>Risk Parity</i></b>			
AQR Global Risk Premium*	Risk Parity	131,334,458	10.3%
Blackrock Market Advantage*	Risk Parity	114,792,450	8.9%
Bridgewater All Weather*	Risk Parity	121,661,550	9.5%
<b><i>Short-term</i></b>			
Parametric	Beta Manager	11,316,634	0.9%
Cash Held at County Treasurer	Operating Cash Account	1,695,480	0.1%
BNY Mellon Cash Investment Strategies	Plan Level Cash Accounts	<u>3,969,844</u>	<u>0.3%</u>
<b>Total Investments</b>		<b><u>\$1,280,726,181</u></b>	<b><u>100.0%</u></b>

\* Pooled fund

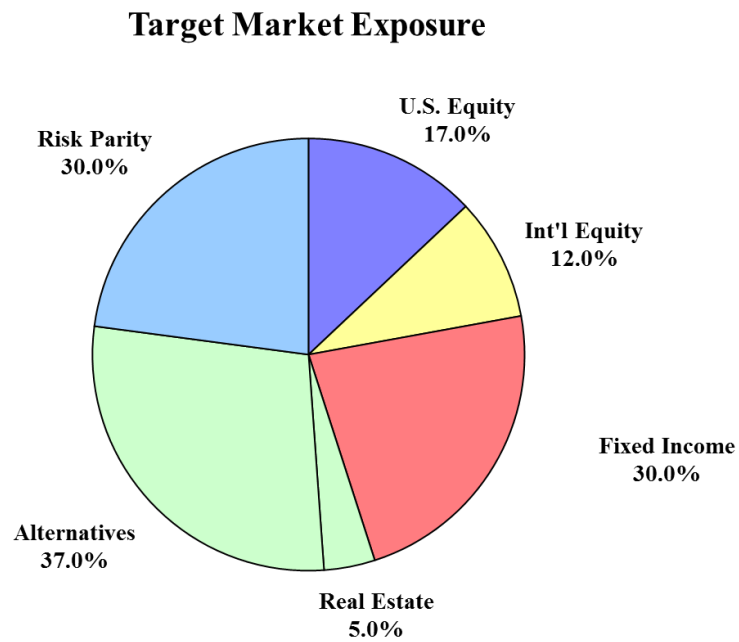
\*\* Refer to pages 8-9 for complete listing of investment professionals.

**Police Officers Retirement System – Allocation of Capital Exposures**

**Target Asset Allocation**

The asset structure shown below represents the Trustees’ assessment of their optimal asset allocation as of June 30, 2015. The target asset allocation provides a reasonable expectation that the System’s investment objectives can be achieved based on historical relationships of asset class performance.

The pie chart below details the target asset mix, consistent with the achievement of the long-term objectives of the System, as of June 30, 2015.



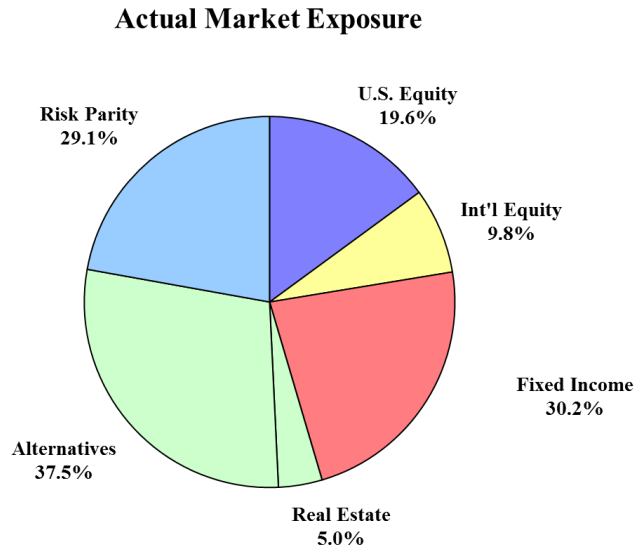
Total Exposure exceeds 100% from the addition of futures and other derivative instruments



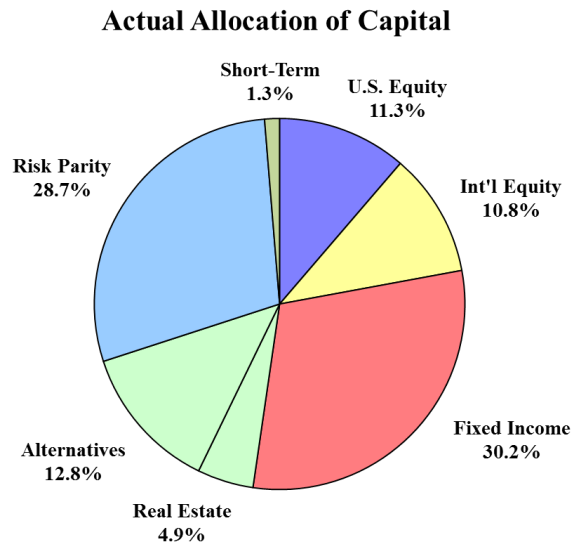
**Actual Asset Allocation as of June 30, 2015**

The asset structure of Police Officers Retirement System has historically reflected a proper balance of the System’s needs for liquidity, growth of assets, and risk tolerance. The System’s investment policy is designed to continue to meet its long-term investment objectives while, at the same time, providing sufficient flexibility to meet short-term funding requirements.

The pie chart below details the actual asset allocation as of June 30, 2015.



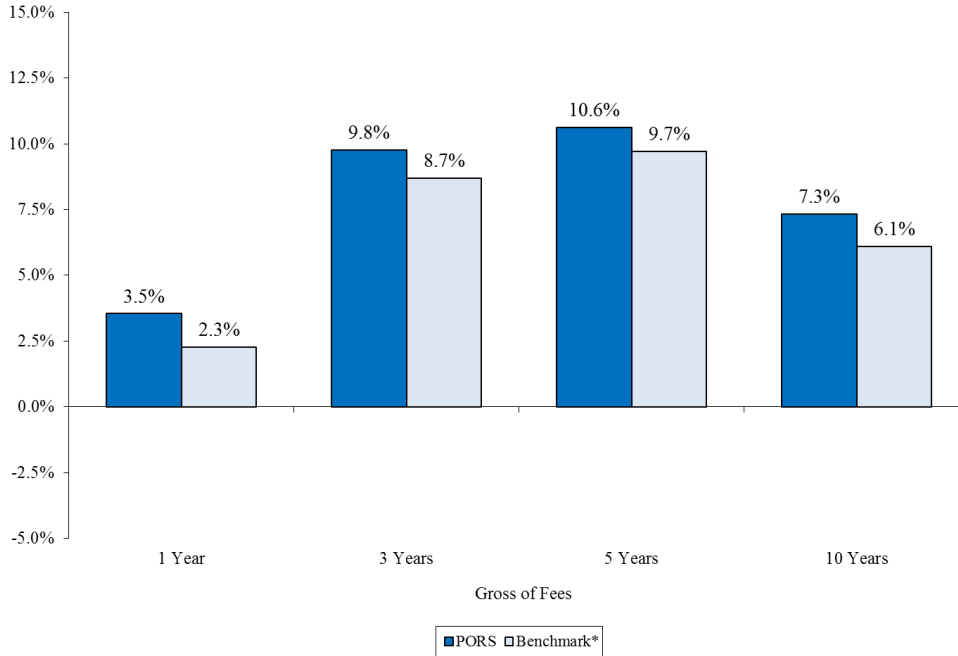
Total Exposure exceeds 100% from the addition of futures and other derivative instruments



**Investment Results**

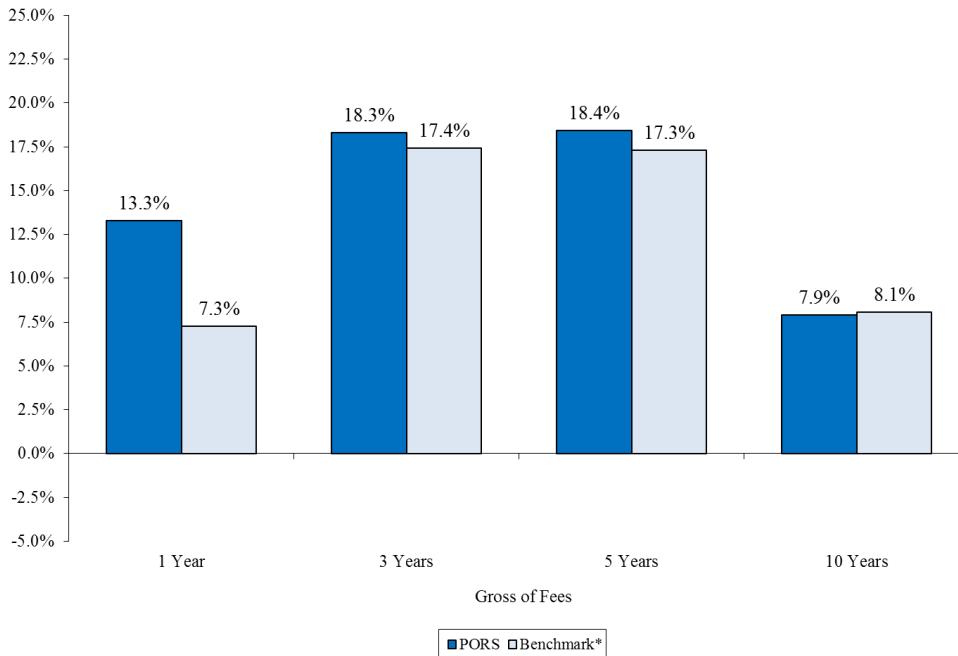
(Time weighted return, gross of fees)

**Total Fund:**



\*Blended Benchmark. Current Benchmark: 30% Risk Parity Benchmark (25% MSCI World Net Div Local, 75% Citi WGBI US Hedged, 37.5% BC Global Agg Credit, 37.5% BC World Govt Inf-Linked All Mat USD Hedge, 15% Bloomberg Comm TR, 10% FTSE EPRA/NAREIT Dev, -100% LIBOR 3 Month), 12% S&P 500, 5% R2000, 9.5% MSCI EAFE, 2.5% MSCI Emerging Markets, 15% BC Aggregate Bond Index, 5% B of A Merrill Lynch High Yield Master, 5% FTSE EPRA/NAREIT Developed, 16% LIBOR +3%

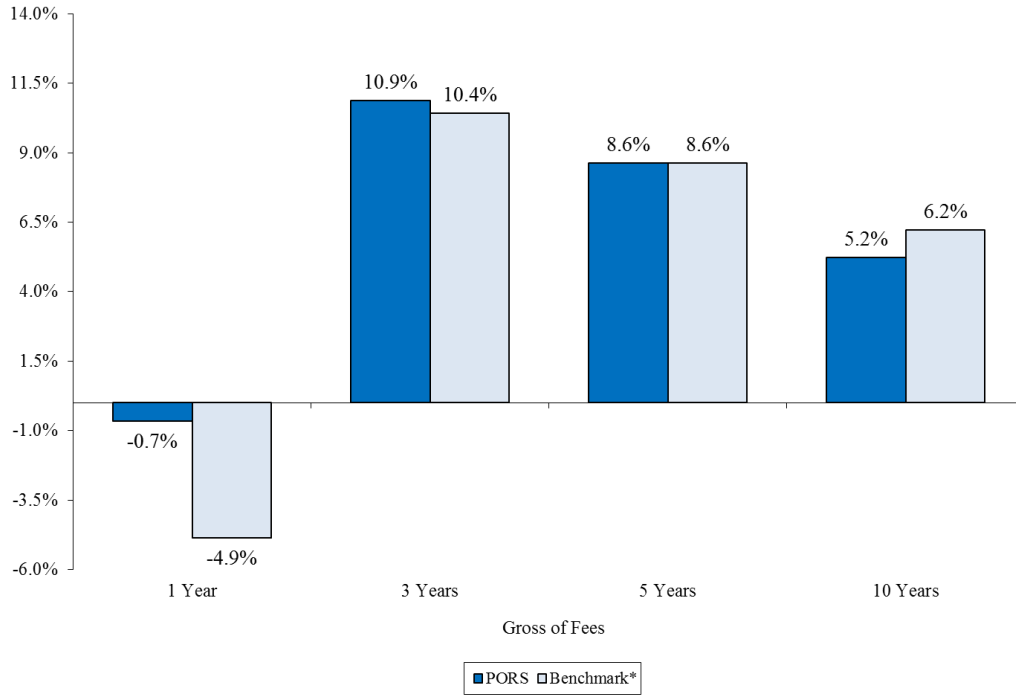
**U.S. Equity:**



\*Benchmark: 70% S&P 500, 30% Russell 2000

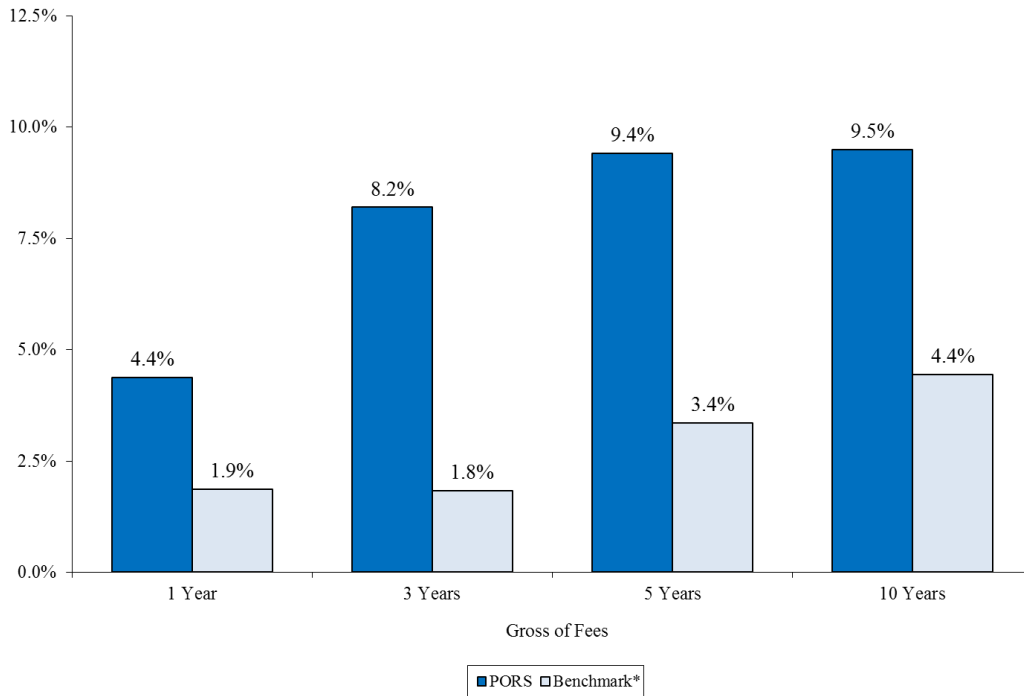
**Investment Results**  
(Time weighted return, gross of fees)

**International Equity:**



\*Benchmark: MSCI All Country World ex U.S.

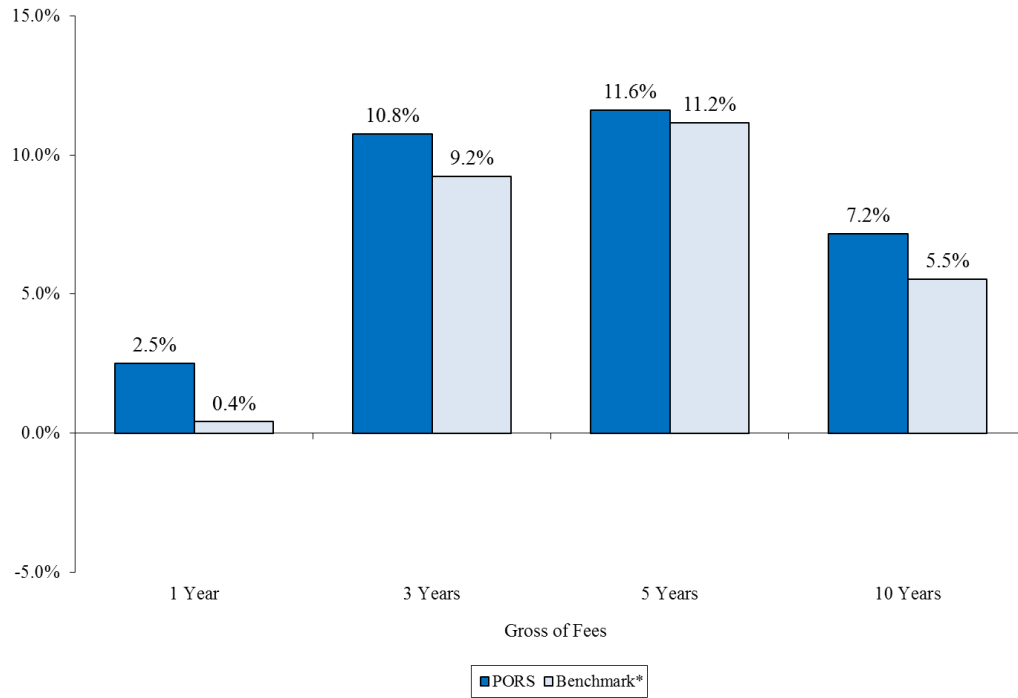
**Fixed Income:**



\*Benchmark: Barclays Aggregate

**Investment Results**  
(Time weighted return, gross of fees)

**Real Estate:**



\*Benchmark: FTSE EPRA/NAREIT Developed Index

**Schedule of Ten Largest Equity & Fixed Income Holdings\***

**Ten Largest Equity Holdings\***

<u>No. Shares</u>	<u>Description</u>	<u>Cost</u>	<u>Fair Value</u>	<u>% of Total Portfolio</u>
62,265	Klepierre	\$2,774,171	\$2,825,138	0.22%
39,010	Equity Residential	2,356,027	2,737,332	0.21%
37,352	Nestle Sa	2,510,126	2,697,833	0.21%
12,600	Fanuc Corp	2,366,825	2,582,503	0.20%
113,355	Taiwan Semiconductor	1,867,994	2,574,292	0.20%
45,570	Chr Hansen Holding A/S	1,766,065	2,222,246	0.17%
37,560	Lazard Ltd	1,106,370	2,112,374	0.16%
98,000	Mitsubishi Estate Co Ltd	2,181,646	2,111,527	0.16%
38,340	Novo Nordisk A/S	1,262,922	2,087,847	0.16%
19,375	ASML Holding Nv	<u>1,256,481</u>	<u>2,001,173</u>	<u>0.16%</u>
	<b>Total</b>	<b><u>\$19,448,627</u></b>	<b><u>\$23,952,265</u></b>	<b><u>1.85%</u></b>

**Ten Largest Fixed Income Holdings\***

<u>Par Value (in local values)</u>	<u>Description</u>	<u>Cost (in U.S. Dollars)</u>	<u>Fair Value (in U.S. Dollars)</u>	<u>% of Total Portfolio</u>
13,435,719	U.S. Treas-CPI Inflation Index, 0.625%, 01/15/2024	\$14,067,583	\$13,664,529	1.07%
8,148,027	U.S. Treas-CPI Inflation Index, 2.625%, 07/15/2017	8,834,248	8,743,240	0.68%
7,659,254	U.S. Treas-CPI Inflation Index, 1.125%, 01/15/2021	8,256,443	8,101,423	0.63%
5,779,286	U.S. Treas-CPI Inflation Index, 3.625%, 04/15/2028	8,023,911	7,874,277	0.61%
6,252,557	U.S. Treas-CPI Inflation Index, 1.875%, 07/15/2019	6,884,654	6,813,849	0.53%
5,619,704	U.S. Treas-CPI Inflation Index, 1.375%, 02/15/2044	6,319,663	5,999,034	0.47%
2,750,393	FHLMC Multi-Class Mtg, Var Rt, 07/15/2043	2,134,992	2,533,139	0.20%
2,628,041	GNMA Gtd Remic P/T 13-88 Lz, 2.500%, 06/16/2043	2,060,854	2,237,856	0.17%
3,048,095	BCAP Llc, 5.500%, 12/26/2035	1,127,795	2,230,454	0.17%
3,100,000	Puerto Rico CmwltH, 8.000%, 07/01/2035	<u>2,521,875</u>	<u>2,100,281</u>	<u>0.16%</u>
	<b>Total</b>	<b><u>\$60,232,018</u></b>	<b><u>\$60,298,082</u></b>	<b><u>4.69%</u></b>

\*Full disclosure of holdings is available upon request.

**Schedule of Brokerage Commissions**  
Year Ended June 30, 2015

<u>Broker Name</u>	<u>Base Volume</u>	<u>Total Shares</u>	<u>Base Commission</u>	<u>Commission Percentage</u>
JP Morgan Secs Asia Pacific, Hong Kong	\$799,886	176,400	\$1,494	0.19%
Credit Lyonnais Secs (Asia), Hong Kong	1,418,805	1,052,700	2,522	0.18%
Citigroup Gbl Mkts/Salomon, New York	3,683,797	850,487	6,159	0.17%
Kas Bank Nv, Amsterdam	3,979,533	208,044	5,964	0.15%
Exane, Paris	994,865	46,135	1,489	0.15%
Green Street Advisors Ltd, London	735,856	70,163	1,101	0.15%
Berenberg Gossler & Cie, Hamburg	981,113	55,270	1,462	0.15%
Wells Fargo Securities Llc, Charlotte	1,305,796	72,802	1,895	0.15%
Instinet Europe Limited, London	5,163,827	250,901	7,106	0.14%
Macquarie Equities Ltd, Sydney	778,728	255,935	1,070	0.14%
Pershing Securities Ltd, London	1,052,169	203,373	1,435	0.14%
SMBC Securities, Inc New York	1,057,328	45,679	1,416	0.13%
CLSA Australia Pty Ltd, Sydney	938,175	302,768	1,254	0.13%
Mizuho Securities Usa Inc, New York	1,584,066	18,762	2,100	0.13%
G-Trade Services Ltd, Hamilton	5,826,829	150,975	7,672	0.13%
Mitsubishi Ufj Securities, New York	939,196	32,854	1,222	0.13%
Mitsubishi Ufj Sec (Usa), New York	1,916,712	80,800	2,492	0.13%
UBS Warburg Asia Ltd, Hong Kong	1,789,844	498,585	2,322	0.13%
Deutsche Bk Secs Inc, Ny	1,105,549	95,217	1,374	0.12%
Instinet Corp, New York	1,337,699	44,468	1,459	0.11%
Macquarie Bank Ltd, Hong Kong	3,243,790	486,695	3,512	0.11%
Macquarie Bank Limited, Sydney	754,115	248,131	812	0.11%
Merrill Lynch Intl London Equities	3,485,705	760,570	3,726	0.11%
Cantor Fitzgerald & Co Inc, New York	725,041	20,511	769	0.11%
Daiwa Secs Amer Inc, New York	4,507,178	297,790	4,777	0.11%
JP Morgan Secs Ltd, London	4,885,380	305,895	5,090	0.10%
Goldman Sachs & Co, Ny	18,396,799	455,550	18,941	0.10%
Morgan Stanley & Co Inc, Ny	10,968,712	1,404,530	11,218	0.10%
Credit Agricole Usa, New York	731,984	26,963	729	0.10%
Stifel Nicolaus	1,223,500	37,875	1,199	0.10%
Merrill Lynch Gilts Ltd, London	2,844,470	137,200	2,785	0.10%
Credit Lyonnais Secs, Singapore	2,983,711	421,066	2,739	0.09%
Credit Suisse, New York	5,762,001	865,365	5,266	0.09%
BNY Convergen Execution Sol, New York	1,512,114	31,584	1,365	0.09%
Bernstein Sanford C & Co, New York	663,531	29,212	582	0.09%
Credit Suisse (Europe), London	2,139,701	100,745	1,719	0.08%
Citigroup Gbl Mkts Inc, New York	7,586,929	271,246	5,815	0.08%
Jefferies & Co Inc, New York	1,125,397	50,833	857	0.08%
J.P. Morgan Clearing Corp, New York	27,950,229	1,147,066	18,959	0.07%
Merrill Lynch Pierce Fenner Smith Inc Ny	10,850,633	316,654	6,998	0.06%
Macquarie Capital (Usa) Inc., New York	1,445,687	59,510	893	0.06%
UBS Securities Llc, Stamford	1,084,066	30,841	617	0.06%
Pershing Llc, Jersey City	1,062,568	14,279	555	0.05%
Raymond James & Assoc Inc, St Petersburg	713,050	9,005	360	0.05%
HSBC James Capel, Seoul	1,218,682	16,390	609	0.05%
HSBC Securities (Usa) Inc, New York	3,867,867	191,565	1,916	0.05%
HSBC Secs Inc, New York	13,496,354	1,186,036	6,536	0.05%
BNY Convergen, New York	1,574,176	36,185	543	0.03%
HSBC Bank Plc (Midland Bk)(Jac), London	12,453,264	446,693	3,728	0.03%
BNY Convergen / Ljr, Houston	6,156,743	56,055	841	0.01%
Other Brokers	<u>14,881,152</u>	<u>2,072,155</u>	<u>21,466</u>	<u>0.14%</u>
<b>Total</b>	<b><u>\$207,684,302</u></b>	<b><u>16,046,513</u></b>	<b><u>\$188,930</u></b>	<b><u>0.09%</u></b>

**Investment Summary**  
(Based on Capital Allocation)

	<u>As of June 30, 2014</u>		<u>As of June 30, 2015</u>	
	<u>Fair Value</u>	<u>% Fair Value</u>	<u>Fair Value</u>	<u>% Fair Value</u>
U.S. Equities	\$141,041,464	11.2%	\$146,520,770	11.4%
International Equities	139,567,694	11.2%	138,075,472	10.8%
Fixed Income	356,909,190	28.3%	383,258,764	29.9%
Real Estate	73,700,119	5.8%	63,109,181	5.0%
Alternatives	159,770,510	12.6%	164,991,578	12.9%
Risk Parity	370,237,713	29.4%	367,788,458	28.7%
Short-term	<u>19,339,523</u>	<u>1.5%</u>	<u>16,981,958</u>	<u>1.3%</u>
<b>Total</b>	<b><u>\$1,260,566,213</u></b>	<b><u>100.0%</u></b>	<b><u>\$1,280,726,181</u></b>	<b><u>100.0%</u></b>





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August 14, 2015

Fairfax County Police Officers  
Retirement System  
10680 Main Street, Suite 280  
Fairfax, Virginia 22030-3812

Dear Members of the Board:

At your request, we have performed an actuarial valuation of the Fairfax County Police Officers Retirement System as of July 1, 2014. The results of that valuation are contained in a full actuarial valuation report dated February 5, 2015. The purpose of this actuarial section is to provide key information from that report. For a more complete analysis, please see the full report.

### ***Funding Objective***

The funding objective of the System is to establish contribution rates that will remain level as a percentage of payroll over time. In order to achieve a more stable contribution rate, the County implemented a corridor funding method on July 1, 2002, (based on the July 1, 2001 valuation results). Under this approach, the current contribution rate is based on the normal cost rate and expense rate developed in the current valuation combined with an unfunded actuarial liability rate (UAL rate) based on assumption and plan changes since July 1, 2001, and a 15-year amortization of any amount by which the System's funded ratio is outside the corridor. The County is taking steps to increase the bottom of the corridor from the originally established 90% up to 100% by 2020. The Fiscal Year (FY) 2015 contribution was based on a corridor level of 93%.

### ***Assumptions***

The actuarial assumptions used in performing the July 1, 2014 valuation were recommended by the actuary and adopted by the Board of Trustees based on our most recent review of the System's experience for the five-year period ending June 30, 2010. The assumptions reflect our understanding of the likely future experience of the System and the assumptions as a whole represent our best estimate for the future experience of the System. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the underlying assumptions, the results would vary accordingly.

### ***Reliance on Others***

In preparing our valuation, we relied on information (some oral and some written) supplied by the System. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23.

### ***Supporting Schedules***

We are responsible for all supporting schedules provided in this Actuarial Section.

We are also responsible for the disclosures of Net Pension Liability and its components in the Financial Section.

***Compliance with Code of Virginia §51.1-800***

Code of Virginia §51.1-800 requires that the benefits provided to a retiree at age 65 from a local retirement system equal or exceed two-thirds of the allowance to which the employee would be entitled under the provisions of the Virginia Retirement System (VRS).

Although there is no formal procedure for making this comparison, we compared the least valuable rate under the Police Officers System to the most valuable accrual rate under the VRS, making adjustments for the fact that employee contributions are required in excess of the VRS 5% rate. We found that the employer-provided accrual rates do exceed two-thirds of the most valuable employer-provided accrual rates under the VRS plan.

We certify that, to the best of our knowledge and understanding, the Fairfax County Police Officers Retirement System satisfies the requirements of the Code of Virginia §51.1-800.

***Certification***

To the best of our knowledge, this section and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained in this section. This section does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This section was prepared for the Fairfax County Police Officers Retirement System for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this section are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Sincerely,  
Cheiron



Fiona E. Liston, FSA  
Principal Consulting Actuary



Christian E. Benjaminson, FSA  
Principal Consulting Actuary



## **Summary of Valuation Results**

### **Overview**

The primary purposes of performing the July 1, 2014, actuarial valuation of the Fairfax County Police Officers Retirement System are to:

- Measure and disclose, as of the valuation date, the financial condition of the System;
- Indicate trends in the financial progress of the System;
- Determine the contribution rate to be paid by the County for fiscal year 2016; and
- Provide specific information and documentation required by the Governmental Accounting Standards Board (GASB).

In this summary of that report, we provide:

- Actuarial commentary;
- Information about the System's assets, liabilities, contributions, and membership experience for the prior year;
- A series of graphs which highlight key trends experienced by the System; and
- A summary of all principal results from the July 1, 2014, valuation, compared to last year's, in a single table, intended for quick reference purposes.

### **General Comments**

For this System, the funding method employed is the entry age normal funding method with a corridor method. Under this method, there are three components to the County's total contribution: the normal cost rate, the unfunded actuarial liability rate (UAL rate), and the administrative expense rate. As long as the System's actuarial funded ratio remains within a corridor of 90% to 120%, the County's total contribution is equal to the normal cost rate plus the UAL rate (which is determined based on rate changes due to amendments passed or assumption changes adopted since July 1, 2001,) plus the expense rate. When the funded ratio falls outside of this corridor, an additional credit (if above 120%) or charge (if below 90%) rate is established based on a 15-year amortization equal to the amount necessary to re-enter the corridor. Once the funded ratio returns to within the corridor, the total contribution rate will return to the sum of the normal cost rate, the expense rate, and the amortization of the post-2001 changes only. However, the County contribution for this System is not permitted to go below the member contribution rate based on the County Ordinance.

The development of the UAL rate, based on the amortization of the post-2001 changes, is shown in the table on the next page.

<u>Changes Since 2001</u>	<u>Impact on UAL Rate</u>
2002 ad-hoc COLA	+ 0.32%
2004 ad-hoc COLA	+ 0.48
2005 Implementation of DROP	+ 0.16
2005 ad-hoc COLA	+ 0.46
2005 Assumption Changes	+ 0.83
2006 ad-hoc COLA	+ 0.45
2007 ad-hoc COLA	+ 0.45
2007 Remove 30 year service cap on benefits	+ 0.07
2008 ad-hoc COLA	+ 0.50
2010 Assumption Changes	+ 0.52
2014 Assumption Changes	+ 1.32
<b>Total Increase</b>	<b>+ 5.56%</b>

The total County contribution rate for fiscal year 2016 as calculated under this method is 31.37%, including a 3.02% charge rate to amortize the amount by which the System's funded ratio is currently outside of the corridor. This is a 1.725% decrease from the fiscal year 2015 total County rate of 33.09%. However, the County is taking steps to increase the 90% corridor floor to 100% and as a result, made their fiscal year 2015 contribution based on a 93% floor, for a total County rate of 36.82% (this rate also reflected the impact of reducing the member contribution rate from 10% to 8.65%). Similarly, it is anticipated that the County will make their fiscal year 2016 contribution based on a 95% floor, for a total County rate of 37.98% instead of the 31.37%.

It is anticipated that the County will continue making their contributions based on raising the corridor floor 1% per year until a 100% corridor floor is reached with the fiscal year 2020 contribution. Once this threshold is reached, the 15-year rolling periods amortizing amounts outside of the corridor will be replaced with closed 15-year layers.

The valuation reflects a change in both liabilities and assets due to assumption changes. The liability is higher by \$42.4 million due to changes in the entry age normal funding method and the sick leave assumption. As a partial offset to this liability impact, an additional \$28 million was recognized into the smoothed value of assets as of July 1, 2014.

The valuation report contains information reported in the June 30, 2014, Comprehensive Annual Financial Report (CAFR) of the System under the new Governmental Accounting Standards Board (GASB) Statement No. 67. These disclosures are based on the use of update procedures to roll forward the 2013 valuation results to June 30, 2014. Note that the 2013 starting point used in these procedures is higher than the funding numbers from 2013 due to reflecting the change in the assumptions and methods in 2013 that were not reflected in the funding numbers until 2014. The calculation of the net pension liability as disclosed for the plan year June 30, 2014 is shown in Section V of the valuation report (and was included in the 2014 System CAFR's financial section). GASB 67 disclosures contained in the financial section of the 2015 CAFR are based on the same roll forward techniques, but use the 2014 valuation as their starting point.

## Trends

The System outperformed the investment assumption during the fiscal year ending in 2014, causing an actuarial gain on the asset side of the System. The actual return on a market value basis was approximately 16.16%. On an actuarial value basis, the assets returned 10.29% (after recognition of the additional \$28 million included with this valuation) compared with an assumed rate of return of 7.5%. The gain recognized for funding purposes was \$31.9 million.

The measurement of liabilities produced a gain in fiscal year 2014 of \$11.6 million. This gain was due to experience compared to our assumptions about salary increases, retirement behavior, death, etc. Specific components of the gain include:

- The average salary increase was 4.2% for active participants who were active in both the July 1, 2013, and July 1, 2014, valuations. This was less than the expected salary growth based on the actuarial assumption, which averaged 5.5%, resulting in a liability gain of \$3.3 million. The annual payroll was provided as of December 31, 2013, and adjusted to July 1, 2014, which included annualizing the 1.29% increase from July 1, 2014.
- The valuation assumed a 2.75% cost-of-living adjustment in 2014 for benefits in pay status (per the most recent experience study). The actual CPI-based COLA was 1.6% last year, creating a liability gain of \$7.9 million.
- The 2014 valuation incorporates actual sick leave hours into both eligibility and projected benefits for active participants. The accrual of additional sick leave from 2013 to 2014 resulted in a loss of \$1.0 million. The 2014 valuation is the first to include a projection of future sick leave accruals; as such, we anticipate less deviation with this assumption in future valuations.
- An annual component of liability loss is the delayed recognition of new hires throughout the year. This does not contribute to an increase in the System's unfunded liability because both the member and the County make contributions beginning from the date of hire. However, when we look only at the liability side, they are a component of the annual liability loss. In fiscal year 2014, they account for a \$0.8 million loss.
- There was a \$2.2 million liability gain component that is made up of various other causes such as members terminating, retiring, dying, or becoming disabled in a way contrary to the assumption.

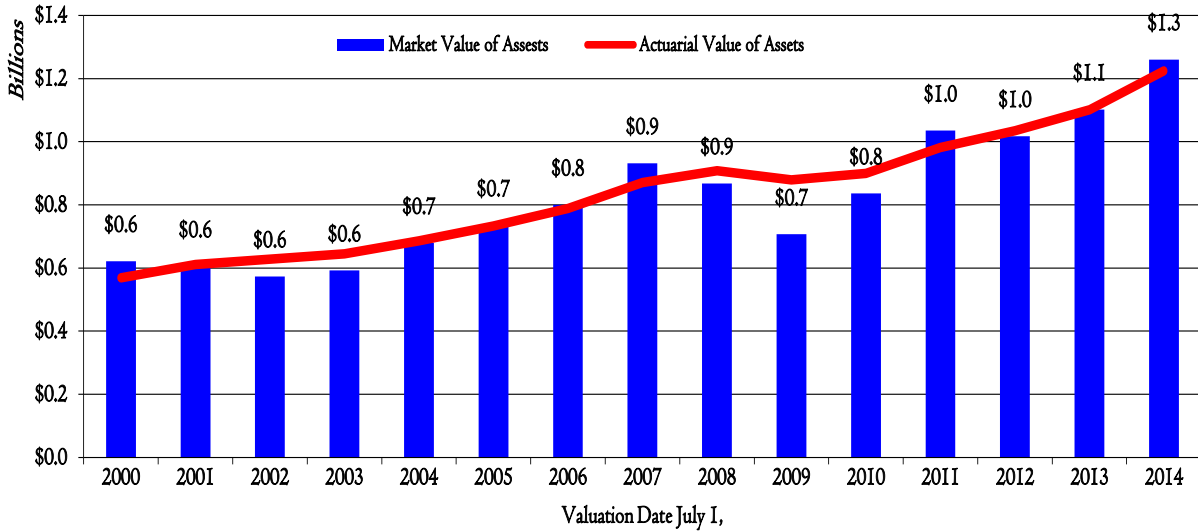
Finally, the County Ordinance was changed this year to reduce the member contributions from 10% to 8.65%. This does not increase the unfunded liability, but shifts the future cost from the members to the County.

The combination of liability and investment experience and County plus member contributions over the last year led to the System's funded ratio (actuarial value of assets over actuarial liability) increasing from 82.1% as of July 1, 2013, to 85.0% as of July 1, 2014. For purposes of measuring whether the System remains within the funding corridor, an adjusted funding ratio is used. In this ratio, there is an additional asset recognized in the amount of the unfunded actuarial liability payments being made by the County to pay for benefit increases and assumption changes. On this basis, the System's actuarial funded ratio increased from 84.2% as of July 1, 2013, to 87.7% as of July 1, 2014.

It is important to take a step back from the latest results and view them in the context of the System's recent history. On the next three pages, we present a series of charts that display key factors in the valuations over

the last 15 years. After the historical review, we present a few projection graphs, showing the possible condition of the System over the next 15 years under various market return scenarios.

Growth in Assets

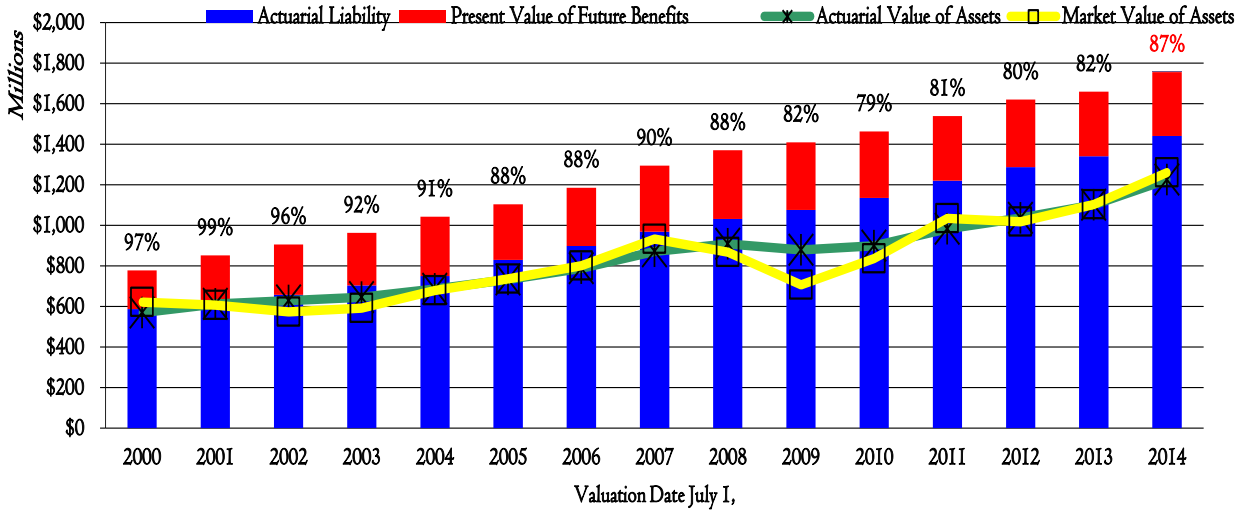


There was an increase in the market value of assets over last year due to a return of 16.16%. The actuarial value of assets increased due to the continued recognition of recent asset gains. For the 2014 valuation, the System recognized an additional \$28.0 million of stored asset gains in order to reduce the total unfunded liability based on the actuarial value of assets. The System still has \$35.9 million in unrecognized gains as of July 1, 2014, that will be recognized over the next few years.

Over the period of July 1, 2000, to June 30, 2014, the System's assets returned approximately 6.3% per year measured at actuarial value, compared to the current valuation assumption of 7.5% per year.

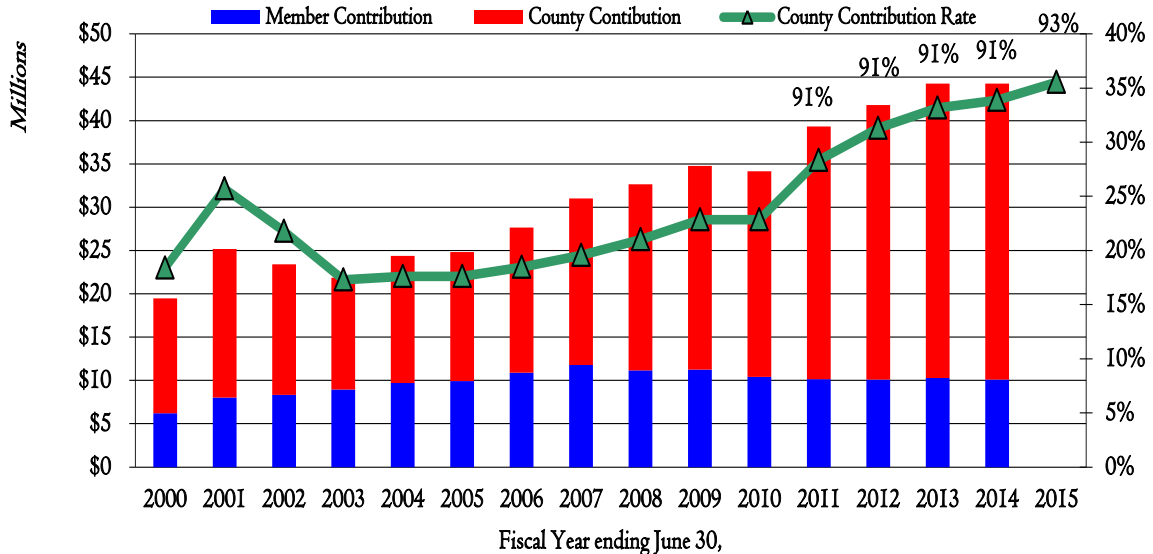


Assets and Liabilities



The two colored bars represent the two different measures of liability developed in the valuation. The amount represented by the top of the red bars, the present value of future benefits (PVFB), is the amount needed to provide all benefits for the current participants and their beneficiaries. If the System had assets equal to the PVFB, no contributions would be needed for the current members if all assumptions were exactly met. The blue bars represent the actuarial liability, or the funding target. Through the 2013 valuation, we compared the actuarial value of assets to this measure of liability in developing these funded ratios (black #s). Starting in 2014, this comparison uses the market value of assets (red #s).

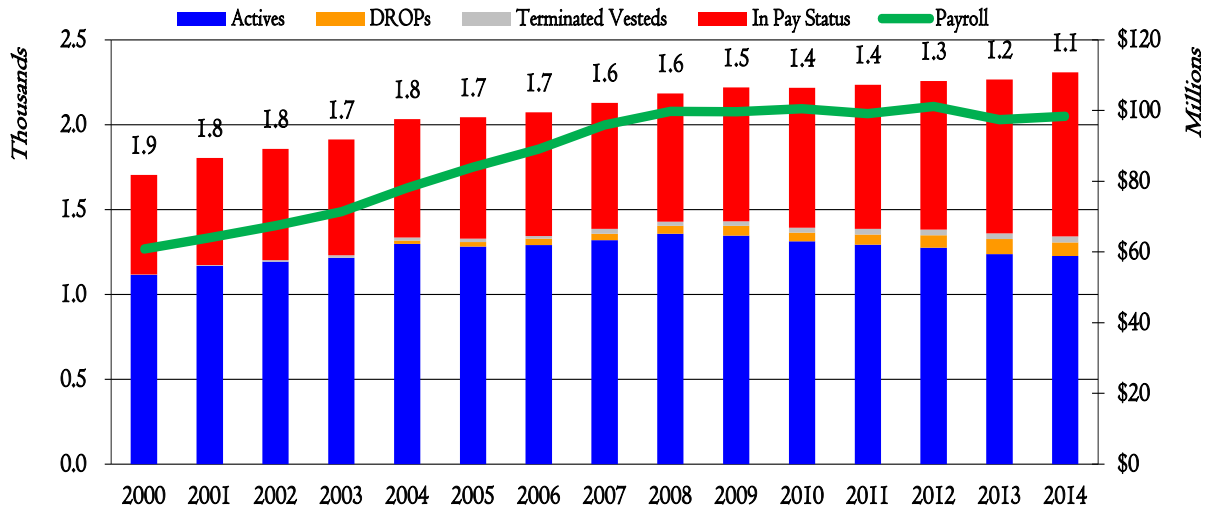
Contributions



The stacked bars in the above graph show the contribution amounts made by both the County and the members (left hand scale). The green line shows the County contribution rate as a percentage of payroll (right hand scale).

The member contribution rate is set by the County Ordinance. The County contribution rate is set by the funding process as described under General Comments. Note there is a lag in the rates shown. For example, the 2014 value is the rate prepared by the 2012 valuation and implemented for the period July 1, 2013, to June 30, 2014.

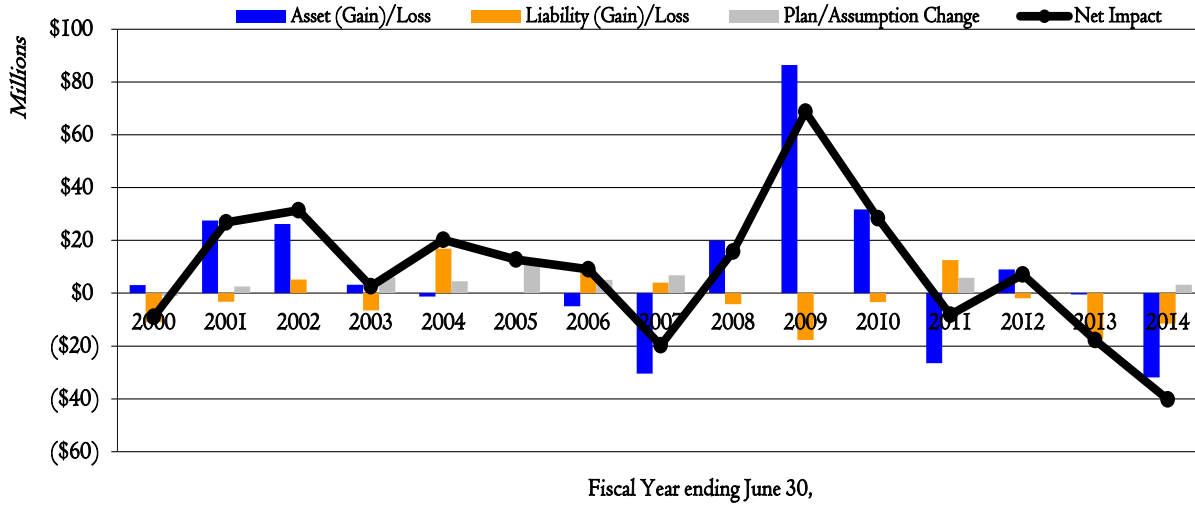
Participant Trends



As with many funds in this country, there has been a steady growth in the number of retired members as the System has matured. The active-to-inactive ratio has decreased from 1.9 actives to each inactive in 2000 to 1.1 actives for each inactive as of June 30, 2014. While this would be an alarming trend in a pay-as-you-go system, the pool of invested assets has been established in anticipation of this development. The green line on the graph shows the covered payroll and is read using the right-hand scale.

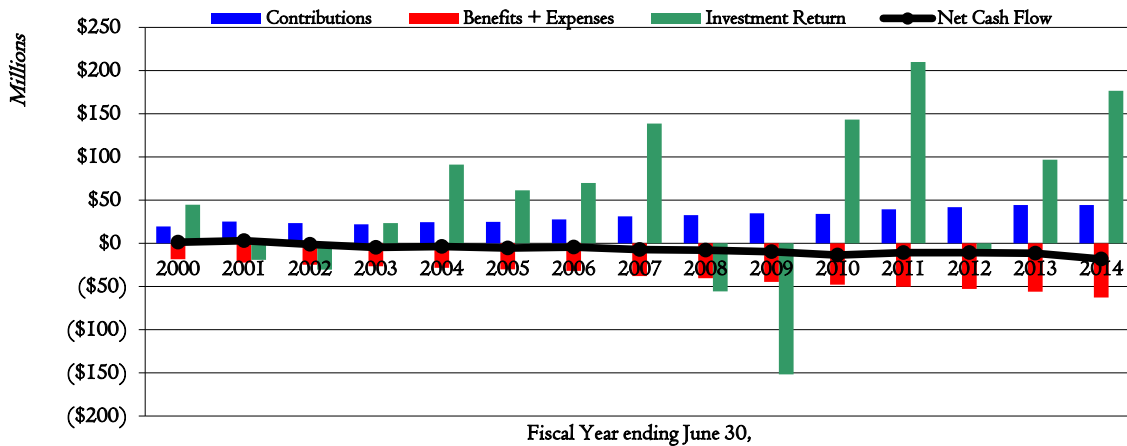
Starting in 2004, the above graph also shows the number of DROP participants. Neither County nor member contributions are made on their behalf, which leads to a slightly lower growth in effective covered payroll for this System.

Gains and Losses



This graph shows the annual gains and losses experienced by the System, along with the change in unfunded actuarial liability (UAL) due to plan amendments and changes in assumptions. The black line shows the net impact of all such changes in a given year. Positive numbers represent increases in the UAL, while negative numbers show reductions.

Cash Flow



The graph above shows the annual cash flows into and out of the System. The graph shows the magnitude of the investment returns on the market value (green bars) compared to the contributions (blue bars). The net cash flow (line) is comparing the contributions to benefits and expenses (red bars), and is independent of the investment returns. Negative cash flows are expected for a mature plan such as this one. An implication of negative cash flows in a plan is that the impact of market fluctuations can be more severe. This is because as assets are being depleted to pay benefits in down markets, there is less principal that is available to be reinvested during periods of favorable returns.

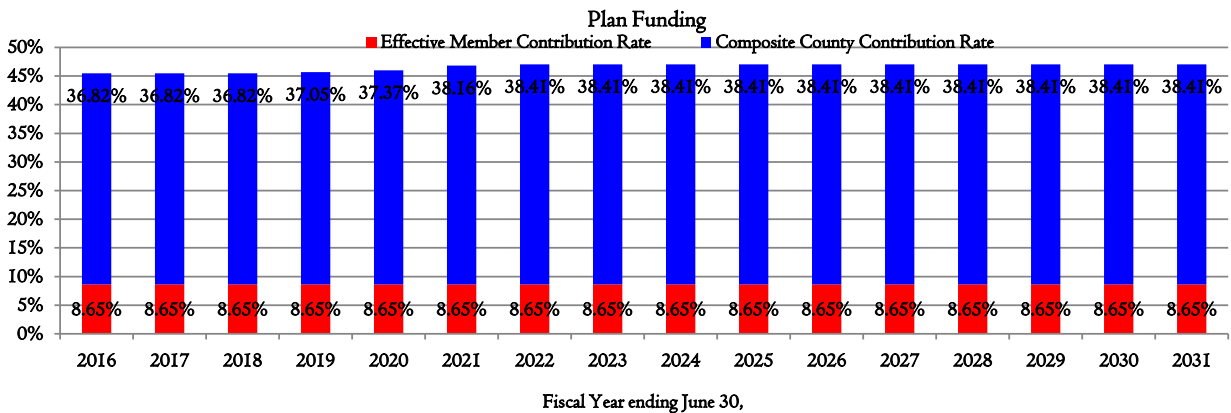
## Future Outlook

### Baseline Projections

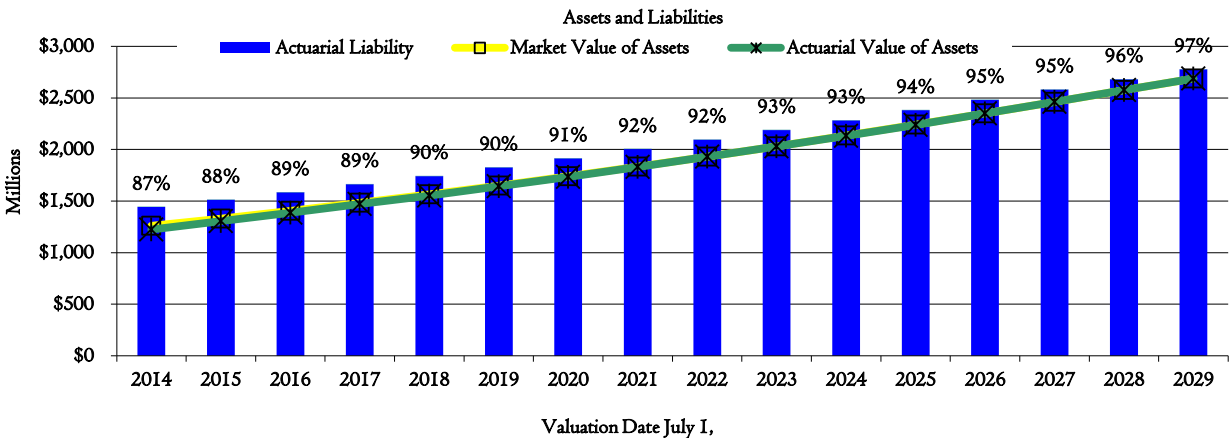
The two graphs below show the expected progress of the System over the next 15 years assuming the System’s assets earn 7.5% annually on their *market value* and all other assumptions are exactly met.

While the County’s policy is to contribute based on a 90% corridor floor, for fiscal year 2016, the County actually plans to contribute an amount based a higher corridor floor rate, with continued increases until the amortization target is 100% in fiscal year 2020. In addition to the increasing corridor floor, the County does not intend to reduce the contribution rate relative to the prior year until the System is 100% funded.

For purposes of the 2014 valuation report, we reflected a 1% increase in the corridor floor, with continued increases thereafter. The graph below entitled “Plan Funding” shows the contribution rates remaining at the 36.82% level for the first three years before slowly increasing to 38.41% and remaining at that level for the remaining duration of the projection period under this scenario.



The “Assets and Liabilities” graph shows the projected funded ratios over the next 15 years. The funded ratio gradually increases for the entire projection period ultimately reaching 97% funded as of 2029.



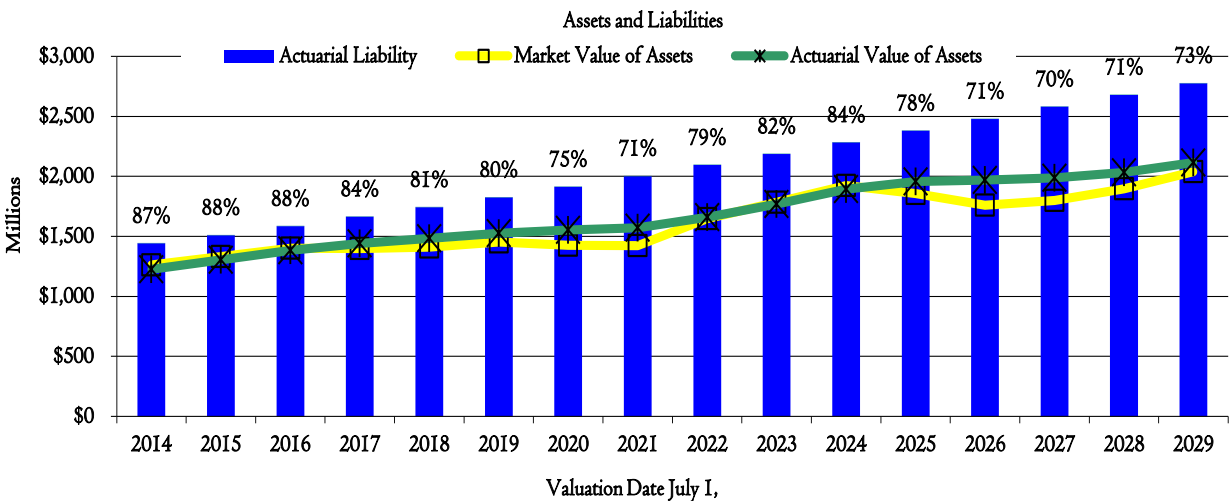
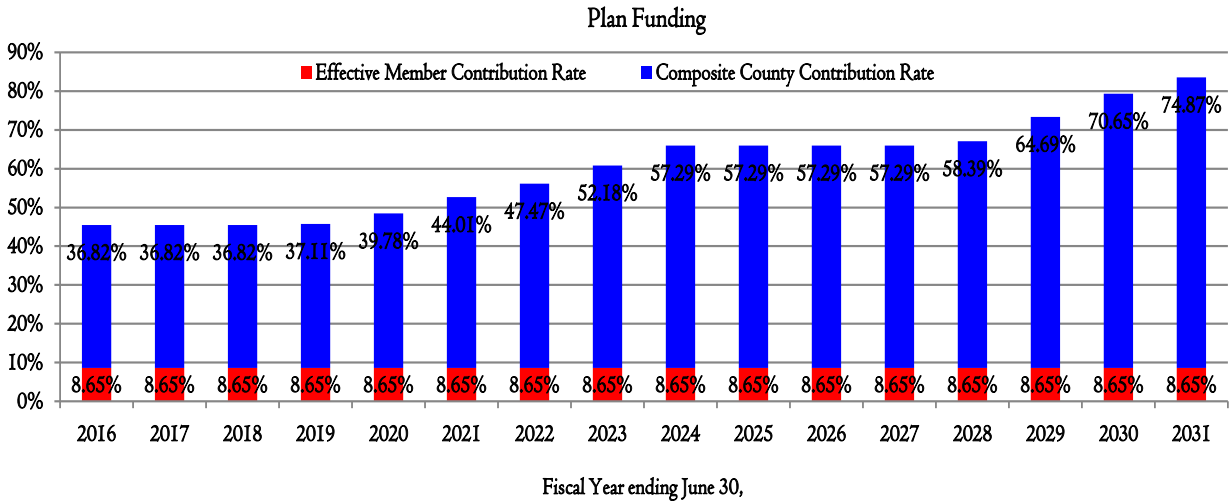
The future funding status of the System will be influenced by its investment earnings. The prior projection assumed the System would earn 7.5% each and every year, which is extremely unlikely.

In the projections that follow, we show the risk to the System under volatile markets. In the following charts, we show results assuming returns over the next 15 years average 5.0%, 7.5%, and 10.0%. Different patterns of returns will produce different results from those shown here. In these scenarios, we continue to assume that all other assumptions are exactly met.

<b>Fiscal Year Ending June 30,</b>	<b>Average <u>5.0%</u></b>	<b>Average <u>7.5%</u></b>	<b>Average <u>10.0%</u></b>
2015	7.67%	2.34%	-5.85%
2016	7.05%	7.17%	4.54%
2017	1.67%	17.72%	18.15%
2018	2.98%	30.01%	32.56%
2019	5.16%	19.42%	-8.98%
2020	-0.19%	5.61%	12.47%
2021	1.48%	11.03%	17.81%
2022	17.59%	4.30%	-13.95%
2023	9.50%	15.60%	15.19%
2024	9.25%	-0.44%	14.83%
2025	-2.11%	2.05%	28.45%
2026	-3.75%	-8.37%	24.92%
2027	4.20%	4.65%	3.95%
2028	7.27%	-0.59%	7.37%
2029	9.17%	7.83%	10.22%
<b>Average</b>	<b>5.00%</b>	<b>7.50%</b>	<b>10.00%</b>

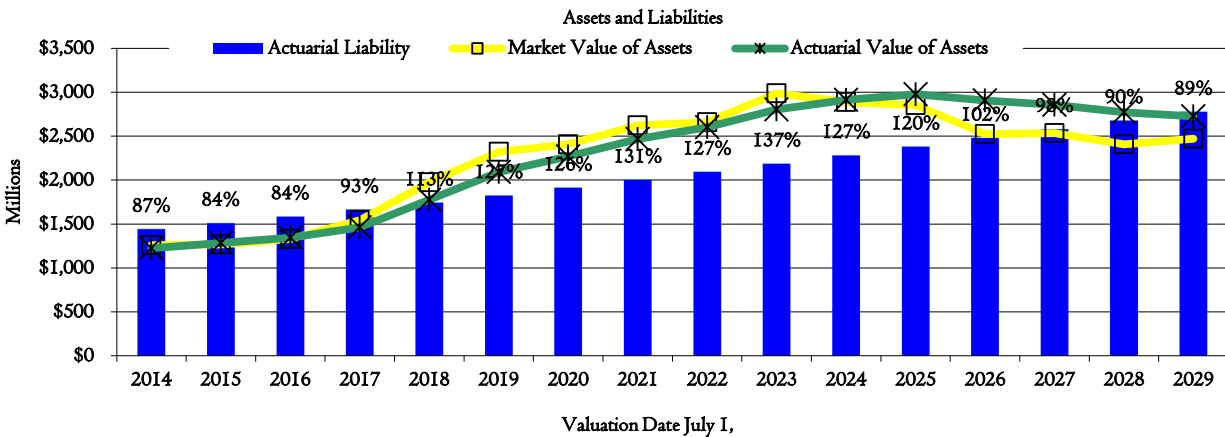
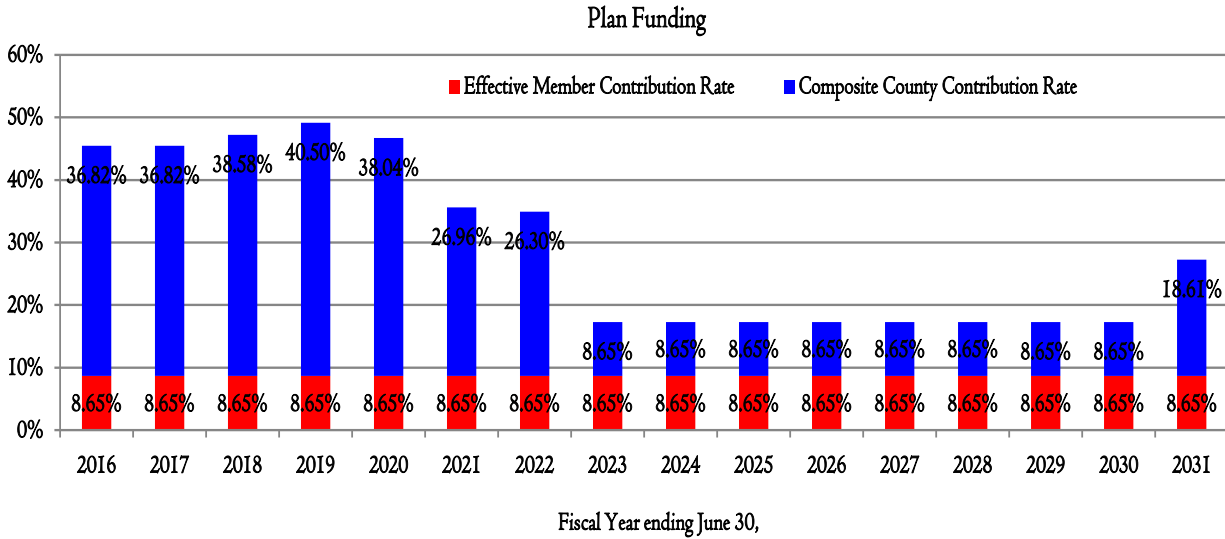
Alternative Projection—with average return of 5.0% in the period

Under this scenario, the corridor contribution rate drastically increases from 37% to 75% of payroll by the end of the projection period. Further, the System’s funded ratio drops to 70% at the lowest projected point, even with the ramping up of contributions.



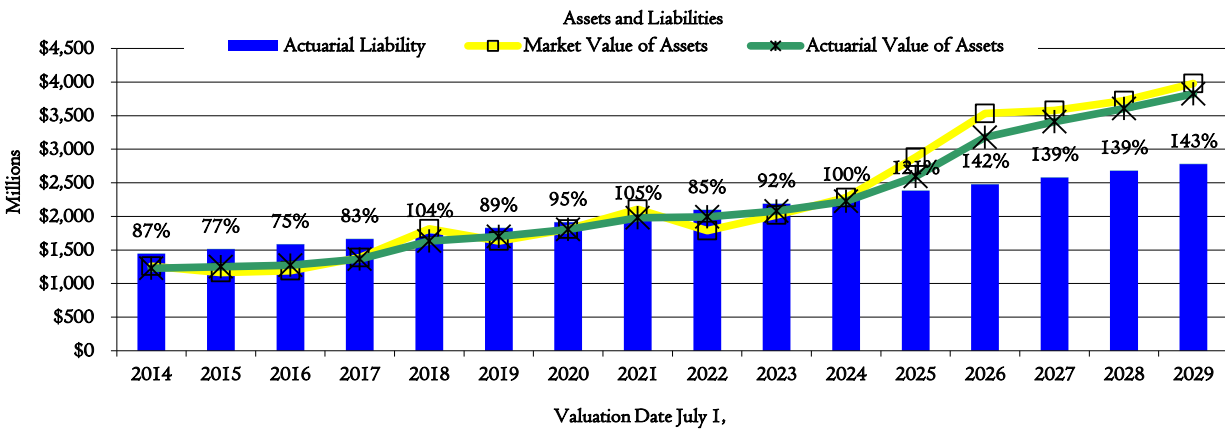
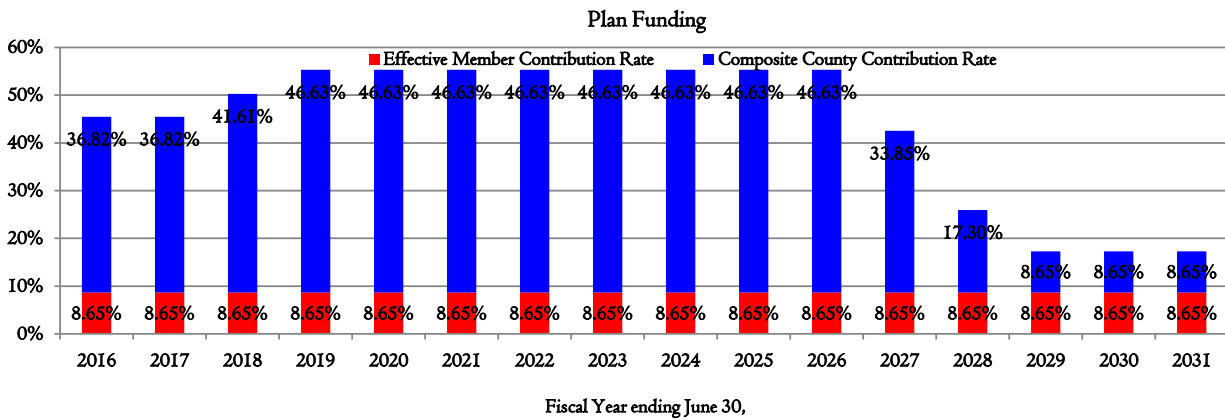
Alternative Projection– with average return of 7.5% in the period

Under this scenario, in which the System is assumed to enjoy higher than average returns in the third through fifth years, the corridor contribution rate increases to 40.50% until the System reaches full funding in 2018. After that time, the contribution drops dramatically as returns continue to push the funded percent higher. County contributions in this System can never drop below the member’s contribution rate.



Alternative Projection– with average return of 10.0% in the period

Under this scenario, in which returns for the first two years are less than 7.5% but subsequent returns are much higher, the corridor contribution rate increases to 46.63% where it remains until the System reaches 100% funded. This determination is made using the corridor assets. Note that the percentages used in the graph are based on market value of assets so the percentages in excess of 100% shown in 2018 and 2021 do not result in reduced contribution rates. By the end of the projection period, the County rate is down to the System’s minimum of 8.65%, equal to the member contribution rate.





<b>Summary of Principal Plan Results</b>			
<b>Valuation as of:</b>	<b>7/1/2013</b>	<b>7/1/2014</b>	<b>% Chg</b>
<b><u>Participant Counts</u></b>			
Actives (excluding DROPs)	1,237	1,226	-0.9%
DROPs	89	80	-10.2%
Terminated Vesteds	33	36	9.1%
In Pay Status	907	966	6.5%
Total	2,266	2,308	1.9%
Annual Payroll of Active Members	\$ 97,361,728	\$ 98,346,859	1.0%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 54,193,186	\$ 58,963,469	8.8%
<b><u>Assets and Liabilities</u></b>			
Actuarial Liability (AL)	\$ 1,341,129,495	\$ 1,441,544,593	7.5%
Actuarial Value of Assets (AVA)	1,101,474,728	1,224,882,430	11.2%
Unfunded Actuarial Liability (UAL)	\$ 239,654,767	\$ 216,662,163	-9.6%
Funded Ratio	82.1%	85.0%	
Present Value of Accrued Benefits (PVAB)	\$ 1,181,327,846	\$ 1,266,382,609	7.2%
Market Value of Assets (MVA)	1,102,522,083	1,260,757,215	14.4%
Unfunded Accrued Liability (not less than \$0)	\$ 78,805,763	\$ 5,625,394	-92.9%
Accrued Benefit Funded Ratio	93.3%	99.6%	
<b><u>Contributions as a Percentage of Payroll</u></b>			
		<b>Fiscal Year 2015</b>	<b>Fiscal Year 2015</b>
<b><u>Corridor Method:</u></b>			
Normal Cost Contribution	20.09%	22.49%	
Increase Due to Amortized Changes	4.24%	5.56%	
Administrative Expense Contribution	0.30%	0.30%	
Base Rate	24.63%	28.35%	
Amortize to 93%	35.55% <sup>1</sup>	35.34%	
Amortize to 94%	36.79%	36.66%	
Amortize to 95%	38.03%	37.98% <sup>2</sup>	

<sup>1</sup> The actual contribution rate paid by the County in fiscal year 2015 was 36.82%, which was based on amortizing to a 93% corridor floor.

<sup>2</sup>The actual contribution rate paid by the County for fiscal year 2016 is expected to be 37.98%, which is based on amortizing to a 95% corridor floor

## **Summary of Actuarial Assumptions and Methods**

### **Funding Method**

The entry age normal funding method is used to determine costs. Under this method, the County contribution has three components: the normal cost, the payment toward the unfunded actuarial liability, and the expense rate.

The normal cost is a level percent of pay cost which, along with the member contributions, will pay for projected benefits at retirement for each plan participant.

The actuarial liability is that portion of the present value of future benefits that will not be paid by future County normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The expense rate is added to cover the System's administrative expenses.

Under the corridor funding method, the County's total contribution rate is equal to the normal cost rate plus the UAL amortization rates for changes due to assumption changes or amendments passed since July 1, 2001 plus the expense rate as long as the System's actuarial funded ratio remains within a corridor of 90% to 120%. If the funded ratio falls outside this corridor, a credit (if above 120%) or charge (if below 90%) will be established based on a 15-year amortization equal to the amount necessary to re-enter the corridor. Once the funded ratio is within the corridor, the contribution rate will return to the normal cost rate plus amortization of post-2001 changes plus expense rate. The County is taking steps to increase the bottom of the corridor from the originally established 90% up to 100% by 2020. The Fiscal Year (FY) 2015 contribution was based on a corridor level of 93%.

### **Actuarial Value of Assets**

For purposes of determining the County contribution to the System, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value, and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

In 2014, there was an additional recognition of \$28.0 million of the remaining balance of past investment gains.

### **Changes since Last Valuation**

The System moved from the new entrant variation of the entry age normal funding method to the individual method.

In addition to the standard recognition from the System's actuarial valuation method, there was an additional recognition of \$28.0 million of the past investment gains.

**Long Term Assumptions Used to Determine System Costs and Liabilities**

**Demographic Assumptions**

**Non-Disabled Mortality**

<b>Annual Deaths Per 10,000 Members RP-2000 Mortality Projected to 2015*</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
20	3	2
25	3	2
30	4	2
35	7	4
40	10	6
45	12	9
50	16	13
55	27	24
60	53	47
65	103	90
70	177	155
75	306	249
80	554	413
85	997	708
90	1,727	1,259
95	2,596	1,888
100	3,394	2,339
105	3,979	2,931

\* 20% of deaths are assumed to be service-connected.

<b>Annual Deaths Per 10,000 Disabled Members RP-2000 Mortality Project to 2015 with Ages Set Forward 5 Years</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
40	12	9
45	16	13
50	27	24
55	53	47
60	103	90
65	177	155
70	306	249
75	554	413
80	997	708

**Disabled Mortality**

**Termination of Employment (Prior to Normal Retirement Eligibility)**

<b>Annual Terminations Per 1,000 Members</b>	
<b>Years of Service</b>	<b>Terminations</b>
0	70
1	40
2	45
3	50
4	40
5	30
6	20
7	15
8	14
9	13
10	12
11	11
12	10
13	10
14	10
15	8
16	6
17	4
18	2
19	2
20 or more	2

It is assumed that members who terminated before normal or early retirement age elect to receive a refund of contributions instead of vested benefits.

**Disability**

<b>Annual Disabilities Per 1,000 Members*</b>	
<b>Age</b>	<b>Male and Female</b>
20	2
25	2
30	2
35	2
40	2
45	4
50	6
55	6
60	6

\* 70% of disabilities are assumed to be service-connected.  
Of these, 100% are assumed to receive Workers' Compensation benefits.

**Retirement**

Years of Service	Probability of Retirement*	
	Hired Pre - 7/1/81	Hired Post - 7/1/81
20	40%	N/A
21	40	N/A
22	40	N/A
23	40	N/A
24	40	N/A
25	40	40%
26	40	40
27	40	40
28	40	40
29	40	40
30	40	40
31+	100	100

\* 50% are assumed to DROP

**Merit/Seniority Salary Increase** (in addition to across-the-board increase)

Years of Service	Merit/Seniority Increase*
0	8.0%
5	4.3
10	1.0
15	3.0
20	1.8
25	1.8
30	1.8

\*There is a spike of 3.5% at 19 years of service.

**Family Composition**

For purposes of valuing the pre-retirement death benefit, an assumption is made concerning how many employees are married. The assumption used in this valuation is that 80% of active employees are married at death and that the female spouse is five years younger than the male spouse is. In addition, each married employee is assumed to have two children, one 22 years and one 24 years younger than the employee.

**Sick Leave Credit**

Unused sick leave balances as reported for each active member are used as of the valuation date. Future sick leave accruals are assumed to accrue at 50% of each participant's annual average, but capped at 124 hours per year.

**Economic Assumptions**

Investment Return:	7.50% compounded per annum.
Rate of General Wage Increase:	3.00% compounded per annum.
Rate of Increase in Cost-of-Living:	2.75% compounded per annum.*
Total Payroll Increase (For amortization):	3.00% compounded per annum.
Administrative Expenses:	0.30% of payroll.

\* Benefit increases are limited to 4% per year.

**Changes since Last Valuation**

A sick leave accrual assumption has been added to project sick leave as part of future benefit and service accruals.

**Analysis of Financial Experience**

**Gain and Loss in Accrued Liability during Years Ended June 30  
Resulting from Differences between Assumed Experience and Actual Experience**

<u>Type of Activity</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Investment Income	\$(86,460,572)	\$(31,755,165)	\$26,496,140	\$(8,996,470)	\$523,678	\$31,937,393
Combined Liability Experience	<u>17,649,316</u>	<u>3,313,576</u>	<u>(12,495,024)</u>	<u>1,919,058</u>	<u>17,282,544</u>	<u>11,575,441</u>
<b>Gain (or Loss) During Year from Financial Experience</b>	<b>\$(68,811,256)</b>	<b>\$(28,441,589)</b>	<b>\$14,001,116</b>	<b>\$(7,077,412)</b>	<b>\$17,806,222</b>	<b>\$43,512,834</b>
Non-Recurring Items	<u>0</u>	<u>0</u>	<u>(5,795,987)</u>	<u>0</u>	<u>0</u>	<u>(14,429,959)</u>
<b>Composite Gain (or Loss) During Year</b>	<b>\$(68,811,256)</b>	<b>\$(28,441,589)</b>	<b>\$8,205,129</b>	<b>\$(7,077,412)</b>	<b>\$17,806,222</b>	<b>\$29,082,875</b>

**Schedule of Retirees and Beneficiaries  
Added To and Removed From Rolls**

<u>Year Ended June 30,</u>	<u>Added to Rolls</u>	<u>Removed From Rolls</u>	<u>On Rolls @ Yr. End</u>	<u>%</u>	<u>Average</u>			
<u>No.</u>	<u>Annual Allowance</u>	<u>No.</u>	<u>Annual Allowance</u>	<u>Increase Allowance</u>	<u>Allowance</u>			
2009	36	\$2,347,460	5	\$214,258	788	\$41,927,564	5.36%	\$53,208
2010	48	3,725,160	12	574,000	824	45,078,724	7.52%	54,707
2011	34	3,623,899	8	306,852	850	48,395,771	7.36%	56,936
2012	37	3,304,118	11	433,632	876	51,266,257	5.93%	58,523
2013	51	3,747,038	20	820,110	907	54,193,185	5.71%	59,750
2014	71	5,441,901	12	671,616	966	58,963,469	8.80%	61,039

**Solvency Test  
Aggregate Accrued Liabilities For**

<u>Valuation Date</u> <u>July 1,</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>Reported Assets</u>	<u>Portion of Accrued Liabilities by Reported Assets</u>		
	<u>Active Member Contributions</u>	<u>Retirees, Vested Terms, Beneficiaries &amp; DROP</u>	<u>Active Members (County Financed Portion)</u>		<u>(1)</u>	<u>(2)</u>	<u>(3)</u>
2009	\$96,351,833	\$658,492,487	\$321,194,627	\$879,543,429	100%	100%	39%
2010	100,709,756	695,041,990	339,263,552	899,543,387	100%	100%	31%
2011	104,188,027	732,172,476	383,248,604	982,153,681	100%	100%	38%
2012	107,411,328	798,639,061	380,790,276	1,035,444,171	100%	100%	34%
2013	107,211,514	859,305,980	374,612,001	1,101,474,728	100%	100%	36%
2014	106,872,811	913,113,803	421,557,979	1,224,882,430	100%	100%	49%



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## Statistical Section (unaudited)

The Statistical Section presents historical information regarding the retirement plan. This information includes a ten-year analysis of the sources of change in plan net assets, benefit payments, the number of retired members and average monthly benefits. Sources of additions include employer and plan member contributions and net investment income; deductions include benefit payments to retirees and beneficiaries, refunds of employee contributions and administrative expenses. The amounts of benefits paid, the count of benefit recipients and the average benefit payments are provided by type of benefit, including service retirement annuities, service-connected and ordinary disability benefits and survivor benefits.

### Schedule of Additions by Source

<b>Fiscal Year</b>	<b>Plan Member Contributions</b>	<b>Employer Contributions</b>	<b>Employer Contributions % of Covered Payroll</b>	<b>Net Investment Income (loss)</b>	<b>Total Additions</b>
2006	\$10,899,659	\$16,727,287	18.44%	\$69,755,418	\$97,382,364
2007	11,796,129	19,222,753	19.55%	138,659,208	169,678,090
2008	11,175,450	21,447,907	21.00%	(55,802,375)	(23,179,018)
2009	11,246,986	23,508,402	22.34%	(151,727,685)	(116,972,297)
2010	10,389,241	23,766,626	22.84%	143,107,767	177,263,634
2011	10,142,459	29,174,611	28.31%	210,054,206	249,371,276
2012	10,109,068	31,700,690	31.30%	(6,731,294)	35,078,464
2013	10,258,858	34,011,347	33.15%	96,783,078	141,053,283
2014	10,091,331	34,178,960	33.87%	176,683,610	220,953,901
2015	8,889,931	37,867,181	36.82%	41,601,153	88,358,265

### Schedule of Deductions by Type

<b>Fiscal Year</b>	<b>Benefit Payments</b>	<b>Refunds of Contributions</b>	<b>Administrative Expenses</b>	<b>Total Deductions</b>
2006	\$31,302,806	\$528,718	\$218,347	\$32,049,871
2007	37,310,748	435,566	429,093	38,175,407
2008	39,533,485	607,913	445,751	40,587,149
2009	43,467,322	761,803	337,334	44,566,459
2010	47,096,822	406,863	349,179	47,852,864
2011	49,429,119	466,363	362,889	50,258,371
2012	52,043,157	357,901	372,137	52,773,195
2013	55,266,464	300,847	415,119	55,982,430
2014	61,715,421	572,284	431,064	62,718,769
2015	67,276,713	480,447	443,230	68,200,390

**Schedule of Benefit Payments by Type**

<b><u>Fiscal</u></b>	<b><u>Service</u></b>	<b><u>Service-</u></b>	<b><u>Ordinary</u></b>	<b><u>Survivor</u></b>	
<b><u>Year</u></b>	<b><u>Annuity</u></b>	<b><u>Connected</u></b>	<b><u>Disability</u></b>	<b><u>Benefit</u></b>	<b><u>Total</u></b>
2006	\$28,426,759	\$1,134,848	\$144,476	\$1,596,723	\$31,302,806
2007	34,077,659	1,194,359	124,092	1,914,638	37,310,748
2008	36,099,484	1,228,039	94,230	2,111,932	39,533,685
2009	39,708,613	1,241,328	90,442	2,426,939	43,467,322
2010	43,069,896	1,218,305	90,804	2,717,817	47,096,822
2011	45,302,801	1,173,023	109,018	2,844,277	49,429,119
2012	47,757,201	1,180,749	149,163	2,956,044	52,043,157
2013	50,784,313	1,212,826	147,739	3,121,586	55,266,464
2014	56,871,422	1,179,687	130,181	3,534,131	61,715,421
2015	62,221,104	1,182,810	134,897	3,737,902	67,276,713

Please note, the following charts represent information which is consistent with the underlying data used to determine the liability in both the financial and actuarial sections. Data for fiscal year 2015 will be updated next year.

**Schedule of Retired Members by Benefit Type**

<b>Fiscal Year</b>	<b>Service-</b>				<b>Total</b>
	<b>Service Annuity</b>	<b>Connected Disability</b>	<b>Ordinary Disability</b>	<b>Survivor Benefit</b>	
2005	597	32	9	77	715
2006	608	32	8	79	727
2007	618	32	7	86	743
2008	634	30	6	87	757
2009	660	30	6	92	788
2010	691	30	6	97	824
2011	716	30	7	97	850
2012	735	30	7	104	876
2013	764	30	6	107	907
2014	813	29	6	118	966

**Schedule of Average Monthly Benefit Amounts**

<b>Fiscal Year</b>	<b>Service-</b>				<b>Average</b>
	<b>Service Annuity</b>	<b>Connected Disability</b>	<b>Ordinary Disability</b>	<b>Survivor Benefit</b>	
2005	\$3,895	\$2,908	\$1,599	\$1,691	\$3,584
2006	4,063	3,111	1,467	1,825	3,750
2007	4,511	3,266	1,401	2,013	4,139
2008	4,752	3,453	1,256	2,208	4,381
2009	4,805	3,439	1,261	2,031	4,434
2010	4,956	3,360	1,290	2,305	4,559
2011	5,154	3,284	1,776	2,392	4,745
2012	5,320	3,370	1,825	2,385	4,877
2013	5,427	3,334	1,844	2,418	4,979
2014	5,551	3,385	1,874	2,469	5,087

**SCHEDULE OF AVERAGE BENEFIT PAYMENTS**

<b>Years of Credited Service *</b>	<b>2-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30+</b>
<b><u>Period 7/1/2005 to 6/30/2006</u></b>							
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$4,008	\$4,885	\$5,539
Average of Final Monthly Salaries	0	0	0	0	6,382	6,555	6,198
Number of Retirees	0	0	0	0	5	7	1
<b><u>Period 7/1/2006 to 6/30/2007</u></b>							
Average Monthly Benefit	0	0	0	0	4,615	5,536	5,426
Average of Final Monthly Salaries	0	0	0	0	6,524	6,921	6,170
Number of Retirees	0	0	0	0	7	29	3
<b><u>Period 7/1/2007 to 6/30/2008</u></b>							
Average Monthly Benefit	0	0	2,178	3,084	4,964	5,043	5,388
Average of Final Monthly Salaries	0	0	5,725	5,696	7,390	6,770	5,959
Number of Retirees	0	0	1	1	11	13	1
<b><u>Period 7/1/2008 to 6/30/2009</u></b>							
Average Monthly Benefit	0	4,163	0	1,559	4,494	5,823	0
Average of Final Monthly Salaries	0	5,810	0	3,929	6,992	7,269	0
Number of Retirees	0	1	0	1	12	13	0
<b><u>Period 7/1/2009 to 6/30/2010</u></b>							
Average Monthly Benefit	0	0	3,069	0	4,278	5,307	0
Average of Final Monthly Salaries	0	0	5,936	0	7,866	7,182	0
Number of Retirees	0	0	2	0	4	32	0
<b><u>Period 7/1/2010 to 6/30/2011</u></b>							
Average Monthly Benefit	0	4,163	0	4,580	4,169	6,193	6,504
Average of Final Monthly Salaries	0	6,062	0	6,669	7,099	8,246	7,576
Number of Retirees	0	1	0	1	8	20	2
<b><u>Period 7/1/2011 to 6/30/2012</u></b>							
Average Monthly Benefit	0	600	0	0	4,565	5,800	0
Average of Final Monthly Salaries	0	3,711	0	0	7,437	7,661	0
Number of Retirees	0	1	0	0	4	17	0
<b><u>Period 7/1/2012 to 6/30/2013</u></b>							
Average Monthly Benefit	0	0	4,339	0	4,070	5,702	7,525
Average of Final Monthly Salaries	0	0	6,319	0	7,416	8,056	8,661
Number of Retirees	0	0	1	0	4	27	3
<b><u>Period 7/1/2013 to 6/30/2014</u></b>							
Average Monthly Benefit	0	0	0	3,147	4,041	5,795	6,965
Average of Final Monthly Salaries	0	0	0	6,728	7,192	8,016	7,837
Number of Retirees	0	0	0	2	9	37	7

The Years of Credited Service is the service used in the determination of benefits, which may be different than \* service for eligibility.

# FAIRFAX COUNTY **POLICE** officers RETIREMENT SYSTEM



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**Retirement** SYSTEMS  
EMPLOYEES' POLICE officers UNIFORMED

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