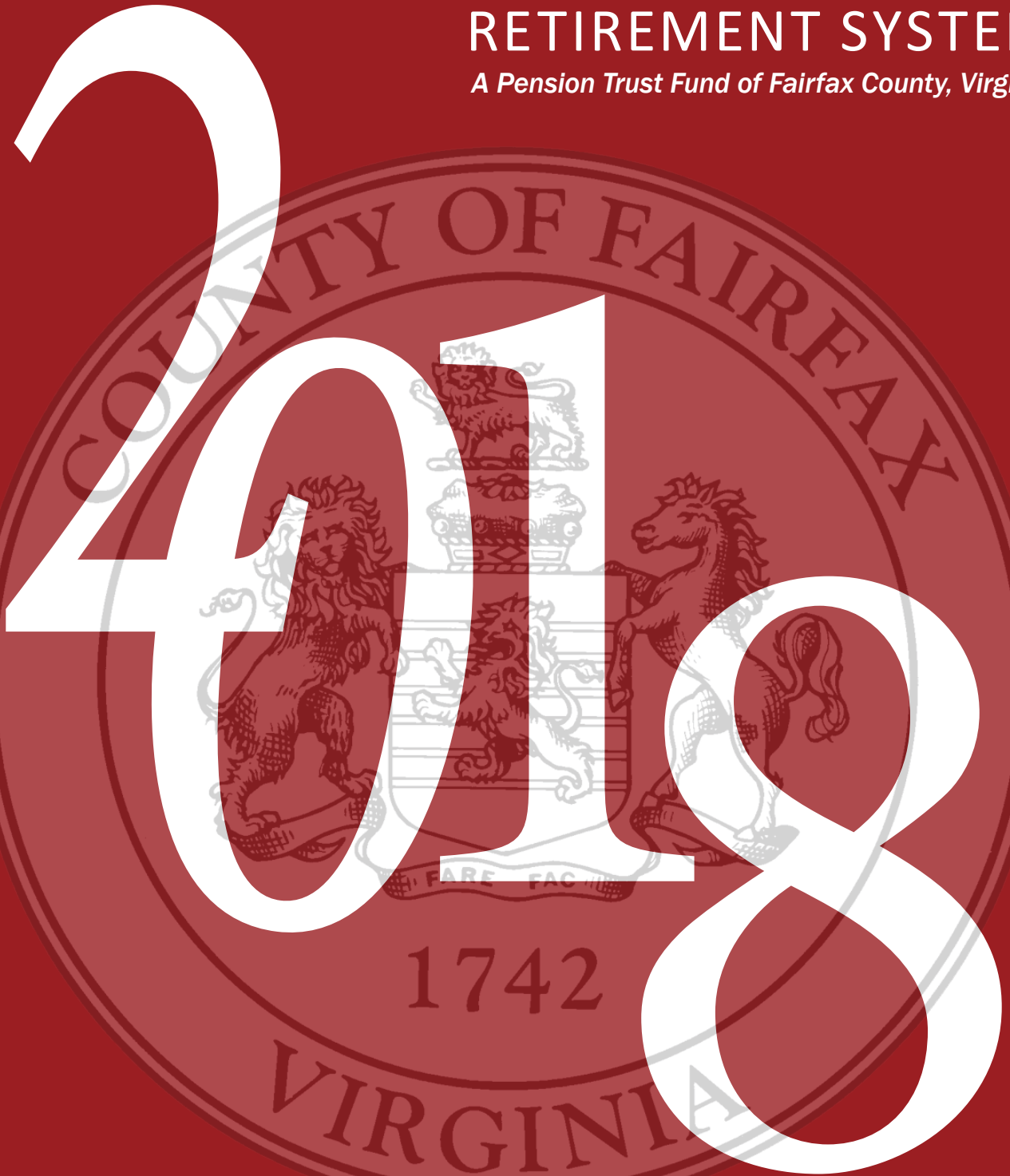


# UNIFORMED RETIREMENT SYSTEM

*A Pension Trust Fund of Fairfax County, Virginia*



## COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2018

# COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2018



Three systems...  
one team.

***A Pension Trust Fund of Fairfax County, Virginia***

This report was prepared by the financial, administrative and investment staff of the Fairfax County Uniformed Retirement System.

## Table of Contents

### Introductory Section (Unaudited)

Letter of Transmittal .....	1
Certificate of Achievement for Excellence in Financial Reporting .....	5
Public Pension Standards Award .....	6
Board of Trustees .....	7
Administrative Organization.....	8
Organization Chart .....	10

### Financial Section

Report of Independent Auditor .....	11
Management's Discussion and Analysis (Unaudited) .....	14
Summary of Plan Fiduciary Net Position .....	17
Summary of Additions and Deductions.....	18
Basic Financial Statements	
Statement of Fiduciary Net Position .....	20
Statement of Changes in Fiduciary Net Position.....	21
Notes to the Financial Statements.....	22
Required Supplementary Information (Unaudited)	
Schedule of Changes in Net Pension Liability and Related Ratios .....	40
Schedule of Net Pension Liability.....	41
Schedule of Money-Weighted Rate of Return.....	41
Schedule of Employer Contributions.....	42
Summary of Significant Changes to the Pension System .....	43
Other Supplementary Information	
Schedules of Investment and Consultant Expenses.....	44
Schedule of Administrative Expenses.....	44
Report on Internal Control.....	45

### Investment Section (Unaudited)

Chief Investment Officer's Letter .....	47
Investments by Category and Investment Manager .....	50
Schedule of Ten Largest Equity and Fixed Income Holdings.....	56
Schedule of Brokerage Commissions .....	57
Schedule of Management Fees.....	58
Investment Summary .....	58
Liquidity Snapshot.....	59

### Actuarial Section (Unaudited)

Actuary's Certification Letter .....	61
Summary of Valuation Results.....	63
Summary of Actuarial Assumptions and Methods .....	63
Long Term Assumptions.....	64
Analysis of Financial Experience.....	66
Schedule of Retirees and Beneficiaries Added To and Removed From Rolls.....	66
Solvency Test.....	67
Schedule of Active Member Valuation.....	67
Schedule of Funding Progress.....	68

### Statistical Section (Unaudited)

Schedule of Additions by Source .....	69
Schedule of Deductions by Type .....	69
Schedule of Benefit Payments by Type .....	70
Schedule of Retired Members by Benefit Type.....	70
Schedule of Average Monthly Benefit Amounts.....	70
Schedule of Average Monthly Benefit by Years of Service .....	71
Active Participants Count by Age/Service.....	72
Active Participants Total Salary by Age/Service .....	72
Retirees by Location .....	73

(This Page Intentionally Left Blank)



# County of Fairfax, Virginia

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

November 5, 2018

Dear Members of the Board of Trustees:

I am pleased to submit to you the annual report of the Fairfax County Uniformed Retirement System (System) for the fiscal year ended June 30, 2018. 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 Uniformed Retirement System was established on July 1, 1974, as a public employee retirement system providing defined benefit pension plan coverage for uniformed or sworn employees of the Fire and Rescue Department, helicopter pilots, the Sheriff's Department, the animal control division, and certain park police officers. In 2005, membership was extended to employees in non-administrative positions of the Department of Public Safety Communications, formerly included in the Fairfax County Employees' Retirement System. There were 1,974 active members, 117 in the Deferred Retirement Option Program (DROP), 83 terminated vesteds and 1,354 retirees participating in the System as of June 30, 2018. For calculations surrounding the Total Pension Liability and its components, Cheiron, the System's actuary, used June 30, 2018, as the measurement date which coincides with the actuarial valuation date.

## Provisions

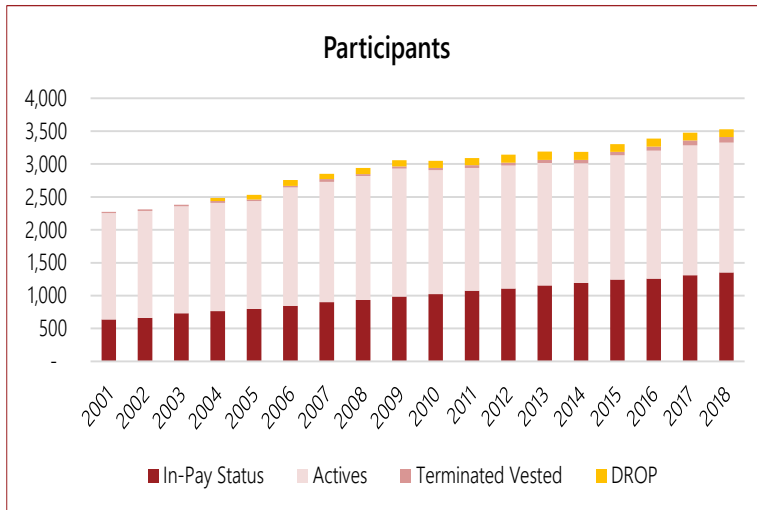
The benefit provisions of the System are established by County Ordinance. The System provides normal service retirement and early service retirement benefits for members who attain age or service requirements. Coverage for service-connected disability benefits is immediate upon membership in the System. 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 2018, the System's investment returns reflected the continuing and long equity bull market. The System's portfolio investment return for the year was 8.89 percent (8.08 percent, net of fees), exceeding the long term return target of 7.25 percent. This return placed in the 42nd percentile of the BNY Mellon Universe of public funds. Over the long term, returns compared more favorably, with investment returns for the ten-year period at 6.30 percent per year, ranking the fund in the 69th 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.



**Fairfax County Retirement Systems**  
 12015 Lee Jackson Memorial Hwy, Suite 350, Fairfax, VA 22033  
 Phone: 703-279-8200 \* 1-800-333-1633 \* Fax: 703-273-3185  
[www.fairfaxcounty.gov/retirement/](http://www.fairfaxcounty.gov/retirement/)



### 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 Note 3 in 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 their external consulting firm 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's 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 will remain relatively level over time as a percentage of covered payroll and will accumulate sufficient assets to meet the costs of benefit payments when due. As of the latest annual valuation, performed as of June 30, 2018, the ratio of the market value of assets to total actuarial accrued liabilities for benefits increased from 80.9 percent to 82.8 percent. The actuarial section contains further information on the results of the June 30, 2018, valuation.

Based on the June 30, 2016, actuarial valuation, the employer contribution rate for 2018 following the adopted corridor-based funding policy remained unchanged from prior year at 38.84 percent. This was done to improve the funded level of the plan, accomplished by raising the target unfunded liability amortization level from 95 percent to 98 percent, and to fund an increase in service-connected disability benefits.

### **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.

In an effort to improve financial transparency, staff completed a major effort to account for all investment management and performance fees paid to investment management firms. While managers' investment performance has traditionally been evaluated net of these fees, the fees themselves were only previously reported for separately managed accounts.

This year, staff initiated a major retirement outreach effort, whereby members of the Retirement team go out to County agencies to meet with members. These small group sessions are in the form of interactive discussions, presentations and limited one-on-one counseling sessions. The goal of these various activities is to ensure that members know what their retirement benefits are, to let them know about the funding and overall health of their retirement system and to address any concerns that they might have.

### **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 Uniformed Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2017. This was the eighth 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, 2018, from the Public Pension Coordinating Council (PPCC), in recognition of meeting the professional standards for plan funding and administration 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*

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

*Acknowledgements*

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/).

This annual report for the Uniformed Retirement System is the result of the hard work of the System's Accounting team, as assisted by other members of the Retirement Systems team.

I am very thankful and feel privileged to lead the Retirement Systems team. These fine people work every day to provide the best-possible service and stewardship for the employees, retirees and citizens of Fairfax County. Finally, I must express my deep appreciation, on behalf of the 3,528 members and beneficiaries of the Uniformed Retirement System, for your dedicated service as trustees.

Respectfully submitted,



Jeffrey K. Weiler  
Executive Director





Government Finance Officers Association

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

Presented to

**Fairfax County  
Uniformed Retirement System  
Virginia**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2017**

*Christopher P. Morrill*

Executive Director/CEO



Public Pension Coordinating Council

***Public Pension Standards Award  
For Funding and Administration  
2018***

Presented to

***Fairfax County Uniformed  
Retirement System***

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

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

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

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

Alan H. Winkle  
Program Administrator

## Board of Trustees

Ten members serve on the Fairfax County Uniformed Retirement System Board of Trustees. Four of the members are citizens appointed by the Fairfax County Board of Supervisors. Two of the members are elected by Fairfax County Fire and Rescue Department; one is elected by the Fairfax County Sheriff's Office, and one is elected by retirees. The Director of Human Resources and the Director of Finance serve as Ex Officio members.



**Frank H. Grace, III** - *Chairman*  
Board of Supervisors Appointee  
Term Expires: July 31, 2022



**Hank H. Kim** - *Vice Chairman*  
Board of Supervisors Appointee  
Term Expires: August 31, 2020



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



**Brian Edmonston**  
Elected Member Trustee  
Term Expires: June 30, 2020



**William Friedman**  
Elected Member Trustee  
Term Expires: October 31, 2021



**Richard L. Merrell**  
Elected Member Trustee  
Term Expires: June 30, 2021



**Shaughnessy Pierce**  
Board of Supervisors Appointee  
Term Expires: July 30, 2022



**Thomas Simcoe**  
Elected Retiree Trustee  
Term Expires: December 31, 2021



**Catherine Spage**  
Ex officio Trustee  
Fairfax County Director of Human Resources



**Teresa Valenzuela**  
Board of Supervisors Appointee  
Term Expires: October 31, 2021

**Administrative Organization**

**Administrative Staff**

Jeffrey K. Weiler  
*Executive Director*

Brian Morales, CAIA  
*Chief Investment Officer*

**Investment Managers**

Acadian Asset Management, LLC  
Boston, MA

Alcentra  
London, UK

Anchorage Capital Group, LLC  
New York, NY

Apollo  
New York, NY

AQR Investor Services  
Greenwich, CT

Ashmore Investment Management Ltd  
New York, NY

Brandywine Global Investment Management, LLC  
Philadelphia, PA

Bridgewater Associates, LP  
Westport, CT

Cohen & Steers Capital Management, Inc  
New York, NY

Criterion Capital Management  
San Francisco, CA

Czech Asset Management, LP  
Old Greenwich, CT

Davidson Kempner Institutional Partners, LP  
New York, NY

DoubleLine Capital, LP  
Los Angeles, CA

Garcia Hamilton  
Houston, TX

Goldentree  
New York, NY

Gresham Investment Management, LLC  
New York, NY

Harbourvest Partners, LLC  
Boston, MA

JP Morgan Investment Management, Inc  
New York, NY

**Investment Managers**

Kabouter International Chicago, IL	King Street Capital Management, LP New York, NY
Landmark Partners Boston, MA	Levine Leichtman Capital Partners, Inc Beverly Hills, CA
Manulife Asset Management Boston, MA	Marathon Asset Management, LLP London, UK
Millennium Management, LLC New York, NY	OrbiMed Healthcare Fund Management New York, NY
Pantheon Ventures, Inc San Francisco, CA	Parametric Portfolio Associates Minneapolis, MN
PIMCO Newport Beach, CA	Siguler Guff & Company, LP New York, NY
Standish Mellon Asset Management Pittsburgh, PA	Starboard Value, LP New York, NY
UBS Realty Investors, LLC Hartford, CT	Wellington Management Company, LLP Boston, MA

**Professional Services**

<u>Actuary</u> Cheiron Actuaries McLean, VA	<u>Auditor</u> Cherry Bekaert LLP Certified Public Accountants Tysons Corner, VA
<u>Investment Consultant</u> NEPC Boston, MA	<u>Custodian Bank</u> BNY Mellon Asset Servicing Pittsburgh, PA
<u>Legal Counsel</u> Morgan, Lewis & Bockius LLP Washington, DC	

Schedule of fees and schedule of commissions is located in the Investment Section, pages 57-58.

Organization Chart



**Board of Supervisors**

*Daniel G. Storck, John C. Cook, Catherine M. Hudgins, Jeffrey C. McKay, Sharon Bulova (Chairman At-Large), County Executive Bryan Hill, Penelope A. Gross (Vice Chairman), John W. Foust, Kathy L. Smith, Linda Q. Smyth, Pat Herrity*

**Board of Trustees**

*(Ten Members – see page 7)*

*Brian C. Edmonston, William Friedman, Frank Henry Grace, III, Hank H. Kim  
Richard L. Merrell, Shaughnessy Glennon Pierce, Christopher J. Pietsch  
Thomas M. Simcoe, Catherine Spage, Teresa Valenzuela*



**Executive Director**  
*Jeff Weiler*



**Chief Investment Officer**  
*Brian Morales, CAIA*



**Investment Analyst**  
*Damien Lee, CFA*



**Investment Operations Manager**  
*Jennifer Snyder*



**Retirement Systems Management Team**  
*Back left to right: Wendy Zhi, CPA, Retiree Services;  
Vicky Panlaqui, Accounting and Financial Reporting;  
Pamela Taylor, Technology  
Front: John Prather, Membership Services;  
Carol Patterson, Communications*



## Report of Independent Auditor

To Board of Supervisors  
County of Fairfax, Virginia

To the Board of Trustees  
Fairfax County Uniformed Retirement System

### Report on the Financial Statements

We have audited the accompanying basic financial statements of the Fairfax County Uniformed Retirement System (the "System"), a pension trust fund of the County of Fairfax, Virginia, a pension trust fund of the County of Fairfax, Virginia, as of and for the year ended June 30, 2018, and the related notes to the financial statements, as listed in the table of contents.

### *Management's Responsibility for the Financial Statements*

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

### *Auditor's Responsibility*

Our responsibility is to express 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 and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free 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 auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

**Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of June 30, 2018, and the changes in fiduciary net position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Other Matters**

*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in net pension liability and related ratios, schedule of net pension liability, schedule of money-weighted rate of return, schedule of employer contributions and summary of significant changes to the pension system 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.

*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 introduction section, schedule of administrative expenses, schedule of investment expenses, schedule of consultant expenses, investment section, actuarial section, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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

The introduction section, investment section, actuarial section, and statistical section have 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 them.



**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated November 5, 2018, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.



Tysons Corner, Virginia  
November 5, 2018

**Management’s Discussion and Analysis  
(Unaudited)**

This section presents management’s discussion and analysis of the Fairfax County Uniformed Retirement System’s (“System” or “Plan”) financial performance and provides an overview of the financial activities for the fiscal year ended June 30, 2018. 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**

The financial presentation is composed of four parts: (1) the financial statements; (2) notes to the financial statements; (3) required supplementary information and (4) other supplementary information. Below is the summary of the information provided in each of these sections.

**Financial Statements**

The System presents the Statement of Fiduciary Net Position as of June 30, 2018 and Statement of Changes in Fiduciary Net Position for the fiscal year ended June 30, 2018. 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 presents the Plan’s transactions under the categories of Additions and Deductions. Additions include contributions from the County and by participating employees, net appreciation in the fair value of investments, dividend and interest income. Investment income is reduced by investment-related expenses such as asset management fees, custody charges and consulting fees. Deductions include outlays for monthly pension benefits, death benefits, refunds of contributions to employees and fees paid for professional services and administrative expenses.

**Notes to the Financial Statements**

The Notes to the Financial Statements are an integral part of the financial statements and include additional information and schedules to provide a better understanding of the fiduciary fund financial statements. The Notes to the Financial Statements include detailed information that is 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 fair value hierarchy, 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**

This section consists of historical trend exhibits such as the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Net Pension Liability, Schedule of Employer Contributions accompanied by the Notes to 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**

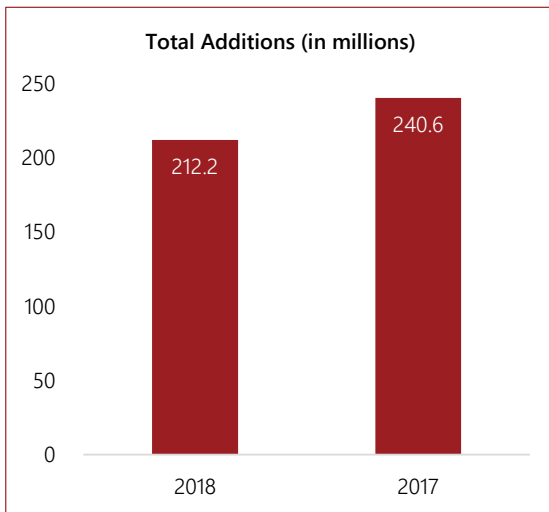
This section includes the Schedule of Administrative Expenses and the Schedule of Investment and Consultant Expenses. The Required Supplementary Information and Other Supplementary notes are immediately following the Notes to the Financial Statements.

Management's Discussion and Analysis  
(continued)

**Financial Highlights**

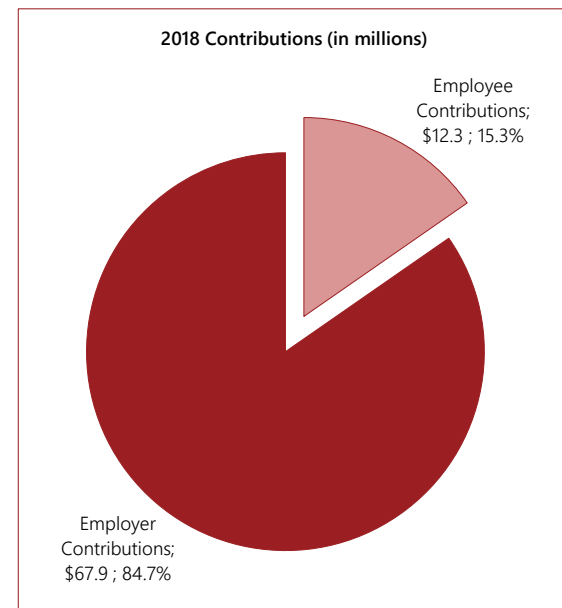
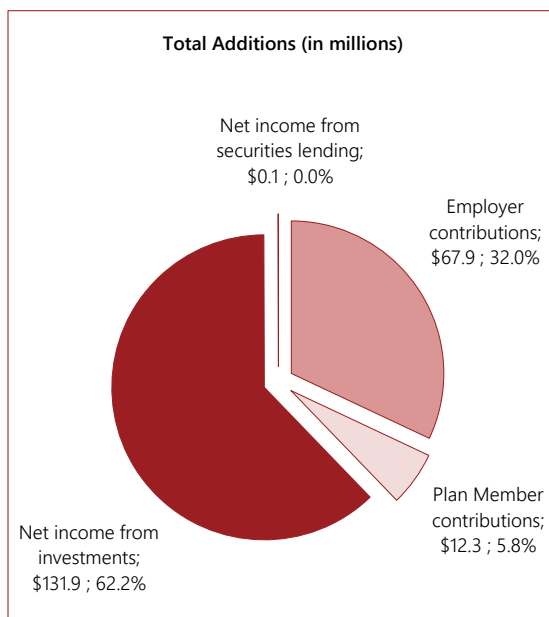
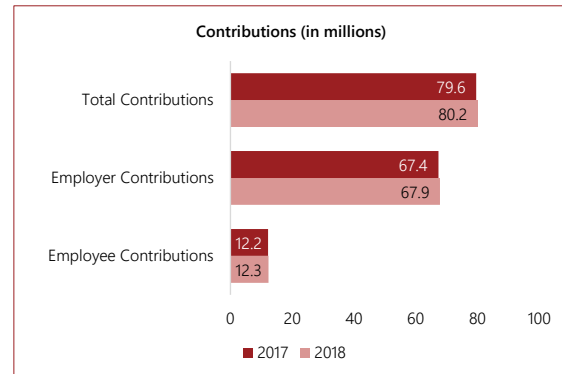
The net position restricted for pension benefits as of June 30, 2018, and June 30, 2017, was \$1,759.9 million and \$1,645.3 million, respectively. The net position representing assets available to pay for current and future member pension benefits, increased by \$114.6 million or 7.0 percent.

Total additions to net position decreased by 11.8 percent from \$240.6 million in 2017 to \$212.2 million in 2018.



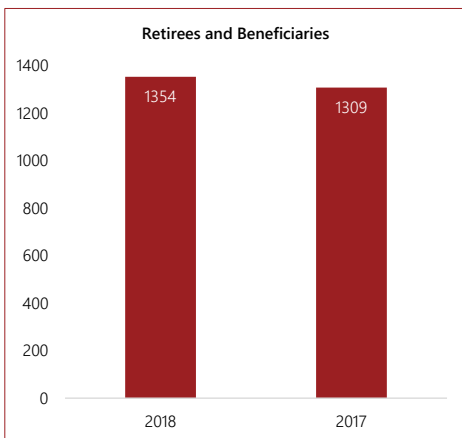
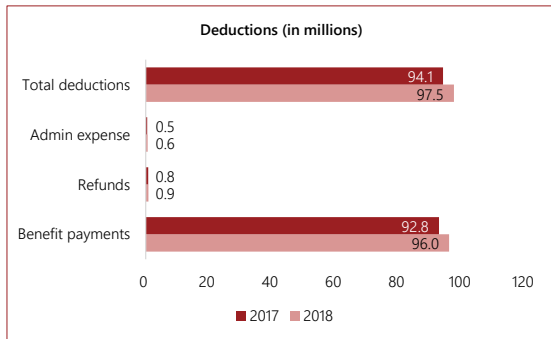
Net investment income decreased 18.0 percent from \$161.0 million in 2017 to \$132.0 million in 2018. The net money-weighted rate of return on investments on a fair value basis was 8.1 percent in fiscal year 2018, and has decreased from 10.9 percent in fiscal year 2017.

Employer and employee contributions received totaled \$80.2 million, an increase of 0.8 percent or \$0.6 million compared to 2017 received contributions of \$79.6 million. The employer contributions increased by 0.7 percent from \$67.4 million in fiscal year 2017 to \$67.9 million in fiscal year 2018.



Management’s Discussion and Analysis  
(continued)

Total deductions from fiduciary net position increased by \$3.4 million from \$94.1 million in 2017 to \$97.5 million in 2018. Member retirement benefit payments of \$96.0 million in 2018 make up the majority of total deduction and increased by \$3.2 million or 3.4 percent from \$92.8 million in 2017. The number of retired members and beneficiaries receiving a benefit payment increased 3.4 percent from 1,309 to 1,354 payees as of June 30, 2018.



The net pension liability as calculated per GASB 67 as of June 30, 2018, and June 30, 2017, was \$365.9 million and \$388.4 million, respectively. The net position as a percentage of total pension liability as of June 30, 2018 and June 30, 2017, was 82.8 percent and 80.9 percent, respectively. The net pension liability as a percentage of covered payroll has decreased from 223.8 percent in fiscal year 2017 to 209.3 percent in fiscal year 2018. The covered payroll increased from \$173.6 million in 2017 to \$174.8 million in 2018.

	2018	2017
Net Pension Liability (in millions)	\$365.9	\$388.4
Net Position as Percentage of TPL	82.8%	80.9%
Covered Payroll (in millions)	\$174.8	\$173.6
Net Pension Liability as Percentage of Covered Payroll	209.3%	223.8%

Financial Analysis

Plan Net Position

When viewed over time, increases or decreases in plan net position can be used to measure the financial condition of a pension plan.

For fiscal year 2018, the net position of the Uniformed Retirement System increased 7.0 percent, resulting in a total net position value of \$1,759.9 million, reflecting an increase of 114.6 million over fiscal year 2017.

Total assets as of June 30, 2018, were \$1,827.3 million, representing an increase of \$108.6 million, or 6.3 percent over the previous fiscal year. The main component of the increase was due to favorable market conditions that resulted in a total cash and investment of 1,758.2 million in fiscal year 2018 as compared to 1,646.1 million in fiscal year 2017.

Receivables increased by \$4.5 million or 9.8 percent due to the timing of investment for settled trades that occurred near year end.

## Management's Discussion and Analysis

(continued)

The table below details the Uniformed Retirement System's net position for the current and prior fiscal year.

Summary of Plan Fiduciary Net Position				
Assets	2018	2017	Difference	Percentage of Change
Total cash and investments	\$1,758,219,440	\$1,646,073,665	\$112,145,775	6.8%
Cash collateral, securities lending	18,008,041	26,099,015	(8,090,974)	-31.0%
Capital assets, net	11,439	-	11,439	100.0%
Total receivables	<u>51,036,192</u>	<u>46,501,006</u>	<u>4,535,186</u>	9.8%
<b>Total assets</b>	<b>1,827,275,112</b>	<b>1,718,673,686</b>	<b>108,601,426</b>	<b>6.3%</b>
Liabilities				
Purchase of investments	(45,789,010)	(43,651,043)	(2,137,967)	4.9%
Cash collateral, securities lending	(18,008,041)	(26,099,015)	8,090,974	-31.0%
Accounts payable and others	<u>(3,575,327)</u>	<u>(3,659,784)</u>	<u>84,457</u>	-2.3%
<b>Total liabilities</b>	<b><u>(67,372,378)</u></b>	<b><u>(73,409,842)</u></b>	<b><u>6,037,464</u></b>	<b>-8.2%</b>
<b>Net position restricted for pension benefits</b>	<b><u>\$1,759,902,734</u></b>	<b><u>\$1,645,263,844</u></b>	<b><u>\$114,638,890</u></b>	<b><u>7.0%</u></b>

Net Position for Current and Prior Fiscal Year			
Fiscal Year	Ending Balances (millions)	Net Change in Dollars (millions)	Net Change in Percent
2018	\$1,759.9	\$114.6	7.0%
2017	\$1,645.3	\$146.6	9.8%

Total liabilities as of June 30, 2018, were \$67.4 million, representing a decrease of \$6.0 million, or 8.2 percent, over the previous year. The downturn in total liabilities is the result of a decreased level of securities lending activity, and 8.1 percent decrease in the accrued liability, including the year end accrual for management fees.

	2018	2017	Difference	Percentage of Change
Accrued Liabilities	\$1,741,510	\$1,894,374	(\$152,864)	(8.1%)

Securities lending cash collateral decreased by \$8.1 million or 31.0 percent due to the decrease in activities in the securities lending program.

The total assets of \$1,827.3 million exceeded its liabilities of \$67.4 million at the close of the Plan year ended June 30, 2018, with \$1,759.9 million in net position restricted for pension.

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.

## Management's Discussion and Analysis

(continued)

### Summary of Additions and Deductions

Additions	2018	2017	Difference	Percentage of Change
Employer contributions	\$67,895,377	\$67,410,252	\$485,125	0.7%
Plan Member contributions	12,262,288	12,223,468	38,820	0.3%
Net income from investments	131,881,922	160,907,219	(29,025,297)	-18.0%
Net income from securities lending	<u>115,335</u>	<u>106,495</u>	<u>8,840</u>	<u>8.3%</u>
<b>Total Additions</b>	<b>212,154,922</b>	<b>240,647,434</b>	<b>(28,492,512)</b>	<b>-11.8%</b>
<b>Deductions</b>				
Benefit payments	96,018,500	92,844,624	3,173,876	3.4%
Refunds	877,705	764,247	113,458	14.8%
Administrative expense	<u>619,827</u>	<u>477,564</u>	<u>142,263</u>	<u>29.8%</u>
<b>Total deductions</b>	<b><u>97,516,032</u></b>	<b><u>94,086,435</u></b>	<b><u>3,429,597</u></b>	<b><u>3.6%</u></b>
<b>Net increase/(decrease)</b>	<b><u>\$114,638,890</u></b>	<b><u>\$146,560,999</u></b>	<b><u>(\$31,922,109)</u></b>	<b><u>21.8%</u></b>

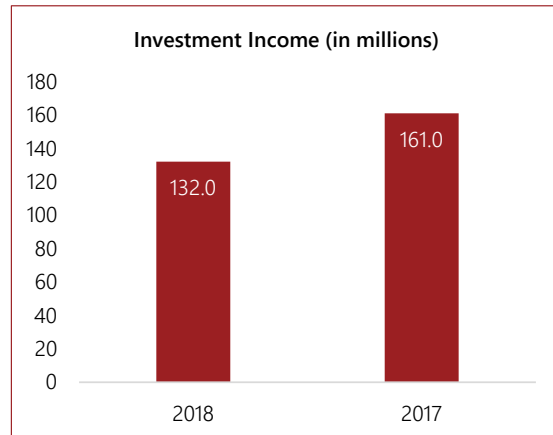
#### Additions and Deductions

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 \$28.5 million or 11.8 percent in fiscal year 2018 attributed primarily due to \$29.0 million, or 18.0%, depreciation in the fair value of the investments. This decline compared to the previous year's investment performance was due to the less favorable market environment in fiscal year 2018.

Total contributions for the fiscal year ended June 30, 2018, amounted to \$80.2 million. This was an increase of \$0.6 million when compared with the activity of fiscal year 2017. The employer contributions for fiscal year 2018 increased by 0.7 percent only as employer contribution rate remained at 38.84 percent of salary. Employee contributions increased by 0.3 percent, due to merit and 1.3 percent COLA increases.

The System experienced an 8.3 percent increase in net income from securities lending as a result of an increase in lending activities during the fiscal year. Investment returns were lower for fiscal year 2018 than 2017 reflecting less favorable returns in the capital markets. Net investment income decreased from \$161.0 million in fiscal year 2017 to \$132.0 million in fiscal year 2018, which is consistent with

the decrease in the net money-weighted investment rate of return from 10.9 percent for fiscal year 2017 to 8.1 percent for fiscal year 2018.



Total deductions of the System consist of the payments of benefits to retirees and beneficiaries, the refund of contributions to former members and the cost of administering the System. The total deductions for fiscal year 2018 were \$97.5 million, an increase of \$3.4 million, or 3.6 percent, over fiscal year 2017. Regular pension benefit payments increased as the number of retirees and beneficiaries receiving benefit payments rose to

## Management's Discussion and Analysis

1,354 from 1,309 in fiscal year 2017. Benefit payments also increased due to a cost-of-living increase of 1.3 percent and higher average benefits for new retirees. Refunds reflected a 14.8 percent increase due to higher employee turnover, separation in the current fiscal year, more employees asking for refunds or higher balance of refunded amounts.

Participant Counts	2018	2017
Actives	1,974	1,975
DROP members	117	115
Terminated vested	83	76
Retirees in payment status	<u>1,354</u>	<u>1,309</u>
Total	<b><u>3,528</u></b>	<b><u>3,475</u></b>

An actuarial valuation is performed annually by Cheiron. The actuarial value of the assets as of the last valuation on June 30, 2018, was \$1,778.3 million, while actuarial liabilities as of the same period was \$2,125.8 million. As of June 30, 2018, the date of the most recent actuarial valuation, the funded ratio of the System was 83.6 percent. This was an increase of 0.8 percent from the July 1, 2017, valuation funded ratio of 82.8 percent. The combination of liabilities, investment results and member and employer contributions over the last year led the funding ratio to an increase. Under GASB 67 calculation, using the December 31, 2017 data rolled forward to June 30, 2018, the plan fiduciary net position as a percentage of the total pension liability was 82.8 percent. It increased from 80.9 percent in fiscal year 2017, primarily as a result of growth in the plan fiduciary net position due to investment returns. In addition, the Total Pension Liability as of June 30, 2018, and June 30, 2017, was \$2,125.8 million and \$2,033.7 million, respectively.

(Dollars in millions)	2018	2017
Actuarial Accrued Liability	\$2,125.8	\$2,033.7
Actuarial Value of Assets	<u>1,778.3</u>	<u>1,683.4</u>
Unfunded Actuarial Liability	<u>347.6</u>	<u>350.3</u>
Funding Ratio	83.6%	82.8%
Total Pension Liability	\$2,125.8	\$2,033.7
Plan Fiduciary Net Position	<u>1,759.9</u>	<u>1,645.3</u>
Net Pension Liability	<u>\$365.9</u>	<u>\$388.4</u>
Funding Ratio	82.8%	80.9%

#### Investment Management Fees

Investment management fees were higher than the prior year due to a reclassification of management fees associated with commingled funds. In an effort to provide a greater level of transparency, investment managers for commingled funds were requested to provide the management fees, rather than netting the management fees against investment activities. The fees have not suddenly and significantly increased. This reclassification did not affect the net investment performance.

#### 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 System, 12015 Lee Jackson Memorial Highway, Fairfax, VA 22033. This report can also be found on the County's internet site at [www.fairfaxcounty.gov/retirement/](http://www.fairfaxcounty.gov/retirement/).

Basic Financial Statements

Statement of Fiduciary Net Position

as of June 30, 2018

**Assets**

Cash and short-term investments		
Equity in County's pooled cash and temporary investments	\$2,150,141	
Cash collateral received for securities on loan	18,008,041	
Short-term investments	<u>152,562,613</u>	
Total cash and short-term investments		\$172,720,795
Capital Assets		
Building Improvements, net	4,670	
Equipment, net	<u>6,769</u>	
Total capital assets		11,439
Receivables		
Accounts receivable	4,415,963	
Accrued interest and dividends	2,623,631	
Investment proceeds and other receivables	<u>43,996,598</u>	
Total receivables		51,036,192
Investments, at fair value		
Common and preferred stock	284,512,370	
Fixed income		
Asset-backed securities	69,338,689	
Corporate and other bonds	83,721,152	
U.S. Government obligations	44,831,697	
Pooled and mutual funds	<u>1,121,102,778</u>	
Total investments		<u>1,603,506,686</u>
Total assets		1,827,275,112

**Current Liabilities**

Investment purchases and other liabilities	45,789,010
Cash collateral received for securities on loan	18,008,041
Accounts payable and accrued expenses	3,519,493
Compensated absences, short-term	24,806

**Noncurrent Liabilities**

Compensated absences, long-term	<u>31,028</u>	
Total liabilities		<u>67,372,378</u>

**Net position restricted for pension benefits** **\$1,759,902,734**

See accompanying notes to financial statements.



## Basic Financial Statements

## Statement of Changes in Fiduciary Net Position

For the Year Ended June 30, 2018

<b>Additions</b>		
Contributions		
Employer	\$67,895,377	
Plan members	<u>12,262,288</u>	
Total contributions		\$80,157,665
Investment income from investment activities		
Net appreciation in fair value of investments	123,411,110	
Interest	11,752,099	
Dividends	<u>12,645,362</u>	
Total investment income	147,808,571	
Investment activity expense		
Management fees	(15,140,277)	
Custodial fees	(74,087)	
Consulting fees	(327,439)	
Allocated administration expense	<u>(384,846)</u>	
Total investment expense	<u>(15,926,649)</u>	
Net income from investment activities		131,881,922
Securities lending activities		
Securities lending income	370,114	
Securities lending expenses	<u>(254,779)</u>	
Net income from securities lending activities		<u>115,335</u>
Total net investment income		<u>131,997,257</u>
Total additions		212,154,922
<b>Deductions</b>		
Annuity benefits	86,794,111	
Disability benefits	7,955,021	
Survivor benefits	1,269,368	
Refunds of employee contributions	877,705	
Administrative expense	<u>619,827</u>	
Total deductions		<u>97,516,032</u>
Net increase		114,638,890
Net position restricted for pension benefits		
Beginning of fiscal year		<u>1,645,263,844</u>
End of fiscal year		<u>\$1,759,902,734</u>

See accompanying notes to financial statements.

The Fairfax County Uniformed Retirement System is a single employer defined benefit pension plan considered part of the County of Fairfax, Virginia's ("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 pursuant to legal requirements. 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.

For financial reporting purposes, the System adheres to accounting principles generally accepted in the United States of America. The System applies all applicable pronouncements of the Governmental Accounting Standards Board (GASB).

### 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 the 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 fair values of private investments and private real estate are generally lagged by at least 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, 2018, 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 change could materially affect the amounts reported in the financial statements.

### D. Compensated Absences

Employees are granted vacation and sick leave based on their length of service. Unused annual and compensatory leave is payable to employees upon termination based on the employees' current rate of pay, up to certain limits. Sick leave does not vest with the employees; however, it is converted to years of service upon retirement. In addition, employees may accrue compensatory leave for hours worked in excess of their scheduled hours. Compensatory leave in excess of 240 hours is forfeited at the end of the calendar year.

## Notes on Financial Statements

(continued)

Compensated Absences	
FY 2018 Beginning Balance	\$44,987
Leave Earned	34,805
Leave Used	23,957
FY 2018 Ending Balance	55,834
Due Within One Year	24,806

### Note 2. Summary of Plan Provision

#### A. Plan Description and Provision

The Uniformed Retirement System is a single-employer defined benefit pension plan. Benefit provisions are established and may be amended by County ordinance. All benefits vest at five years of service. The general provisions of the Uniformed Retirement System are as follows:

##### *Membership.*

The plan includes most uniformed or sworn employees of the Fire and Rescue Department, the Sheriff's Department, the Animal Control Division, the Department of Public Safety Communications, helicopter pilots, and former park police officers who elected to remain in the System rather than transfer to the Police Officers Retirement System.

##### *Normal Retirement.*

To be eligible for normal retirement, an individual must meet the following criteria: (a) attain the age of 55 with six years of service, or (b) complete 25 years of service.

Plan A Benefit is 2.0 percent of average final compensation multiplied by credited service, plus starting at age 55, 100 percent of the Pre-62 Supplement.

Plan B Benefit is 2.0 percent of average final compensation multiplied by credited service, plus 50 percent of the Pre-62 supplement until age 55 and 100 percent of the supplement after age 55.

The Pre-62 Supplemental Benefit provides members of Plan A and B with income during the period between retirement and the member's eligibility for early Social Security benefits at age 62.

The Plan A or B member's Pre-Social Security Benefit is calculated at 0.2 percent of average final compensation multiplied by credited service. This benefit starts at retirement and continues until the month following a member's eligibility for unreduced social security retirement benefits.

Plans C, D, and E Benefit is 2.5 percent of average final compensation multiplied by credited services.

Pre-Social Security Supplement for Plans C, D and E is 0.3 percent of average final compensation multiplied by credited service.

##### *Early Retirement.*

A member is eligible for early retirement upon attaining 20 years of service. Reduction factors are applied to the basic formula.

Normal retirement benefit for Plans A and B, excluding the Pre-Social Security supplement, calculated using average final compensation and service at early retirement, actuarially reduced.

For Plan A, the Pre-62 supplement is not provided until age 55. For Plan B, one half of the Pre-62 supplement is provided prior to age 55. At age 55, the full supplement is paid.

Normal retirement benefit for Plans C, D, and E is calculated using the average final compensation and service at early retirement, actuarially reduced.

##### *Deferred Retirement Option Program (DROP).*

Those eligible for normal retirement may enter DROP for up to three years. Members can only participate in DROP once, and their election is irrevocable.

##### *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 County service.

**Notes on Financial Statements**  
(continued)

*Service-Connected Disability Retirement.*

Service-connected disability retirement is available for members, regardless of length of service, who become disabled as a result of a job-related illness or injury. The benefit is 40.0 percent of final compensation less workers' compensation, and less 5.0 percent of the Social Security disability benefit. The benefit for members retired on a severe service-connected disability is calculated at 90.0 percent of salary at the time of retirement less the workers' compensation benefit, and less 5.0 percent of any Social Security benefit.

*Ordinary Disability Retirement.*

Ordinary 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:

If the member is vested and the spouse is the listed beneficiary, the spouse may elect to receive 50 percent of the normal retirement benefit earned as of the date of the member's death. If the 50 percent of normal retirement benefit is not payable, a refund of the member's contribution plus interest will be paid to the named beneficiary or member's estate.

If death occurs after retirement:

Refunds of any of the member's contributions and interest not already paid out in benefits will be paid to the named beneficiary(ies) unless the member elected the irrevocable Joint and Last Survivor Option which provides a benefit to the member's spouse for life. At retirement, the member may choose to have

his or her spouse receive 50.0 percent, 66.67 percent, 75.0 percent, or 100.0 percent of the member's reduced annuity upon the member's death. The member's annuity is reduced by a percentage based on the difference in age between the member and his or her spouse. If the spouse restored to what it would have been if this option had not been elected.

If death is service-connected:

A \$10,000 lump-sum payment is made to the beneficiary if the member's death is due to a job-related illness or injury.

*Cost of Living Benefit.*

Annual cost-of-living adjustments (COLAs) are provided to retirees and beneficiaries equal to the lesser of 4.0 percent or the percentage increase in the Consumer Price Index for the Metropolitan Statistical Area that includes Fairfax County. Members of Plan A and C receive COLA increases beginning at age 55. Members of Plan B, D and E receive COLAs beginning at retirement. COLAs are not applied to the Pre-Social Security Supplements, or other Supplemental Benefits.

*Benefit Limits.*

Benefits are 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 amounts in excess of the Section 415 limit.

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

Contribution Rate		
Member	Plan A	4.0% of base salary up to the maximum Social Security wage base plus 5.75% of base salary over the wage base.
	Plan B	7.08% of base salary up to the maximum Social Security wage base plus 8.83% of base salary over the wage base.
	Plan C	4.0% of creditable compensation.
	Plan D and E	7.08% of creditable compensation.
Employer	Plan A, B, C, D and E	The rate for Fiscal Year 2018 was 38.84% of covered payroll for all plans.

## Notes on Financial Statements

(continued)

### B. Board of Trustees

Ten members serve on the Fairfax County Uniformed Retirement System. Four of the members are citizens appointed by the Fairfax County Board of Supervisors. Two of the members are elected by Fairfax County Fire and Rescue Department; one is elected by the Fairfax County Sheriff's Office and one is elected by the retirees. The Director of Human Resources and the Director of Finance also serve as Ex Officio members.

### C. Membership

At June 30, 2018, the date of the latest actuarial valuation, membership in the System consisted of:

Retirees and beneficiaries receiving benefits	1,354
Terminated Vesteds	83
Deferred Retirement Option Program (DROP) participants	117
Active plan members	<u>1,974</u>
<b>Total</b>	<b><u>3,528</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 (no pre-Social Security Supplements are paid into DROP accounts for Plan E). 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 percent, 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 an addition to the monthly retirement annuity. The DROP balance as of June 30, 2018, was \$15.6 million.

### E. Contributions

The contribution requirements of the System's members are established and may be amended by County ordinances. Plan A members were given the opportunity to join Plan B as of July 1, 1981, and to enroll in Plan C as of April 1, 1997. From July 1, 1981, until March 31, 1997, all new hires were enrolled in Plan B. Plan B members were given the opportunity to enroll in Plan D as of April 1, 1997. From April 1, 1997, through December 31, 2012, all new hires were enrolled in Plan D. All eligible employees whose County employment commenced by reporting to work on or after January 1, 2013, are automatically enrolled in Plan E. Plan A requires member contributions of 4.0 percent up to the Social Security wage base and 5.75 percent of compensation in excess of the wage base. Plan B requires member contributions of 7.08 percent of compensation up to the Social Security wage base and 8.83 percent of compensation in excess of the wage base. Plan C requires member contributions of 4.0 percent of compensation. Plan D and E require contributions of 7.08 percent of compensation. The County is required to contribute at an actuarially determined rate; the rate for the year ended June 30, 2018, was 30.35 percent of annual covered payroll. The decision was made to commit additional funding and a rate of 38.84 percent was adopted for fiscal year 2018. The total contributions for the fiscal year ended June 30, 2018, amounted to \$80.2 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. The total deductions for the fiscal year ended June 30, 2018, amounted to \$97.5 million.

## Notes on Financial Statements

(continued)

### Note 3. Investments

#### A. Investment Policy

The authority to establish the System is set forth in Section 51.1-800 Code of Virginia (Code). Section 51.1-803 of the Code 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 the Uniformed Retirement System Statement of Investment Objectives and Policies whose general investment philosophy is to maintain a well-diversified, high-quality investment program that can meet the long-term needs of the members of the System. The Board of Trustees believes that the retention of experienced money management professionals with proven investment disciplines is the best means of attaining the System's investment goals and that the investment program should be sufficiently flexible to adapt to changes in the financial markets. Investment decisions for these assets are made by the Board of Trustees or investment managers selected by the Board. The Board of Trustees has the authority to amend the investment policy. The overall investment policies do not address specific levels of credit risk, interest rate risk or foreign currency risk. Each individual investment portfolio is managed by an investment management firm selected by the Board. Each investment portfolio has a specific benchmark and investment guidelines. While the overall investment guidelines do not specifically address concentration of credit risk, managers have specific quality and concentration limits appropriate for the type of mandate they are managing and that fit within the total risk tolerance of the fund.

The following was the System's adopted asset allocation policy as of June 30, 2018. The asset

allocation policy commonly exceeds 100 percent because of 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. Also, the System commonly includes 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.

Asset Class	Target Exposure
Absolute Return	18.0%
Global Equity	36.0%
Global Fixed Income	29.0%
Global Multi-Asset	12.0%
Global Real Assets	10.0%
Short-Term	3.0%

#### B. Concentrations

The investment policy states that the securities of any one issuer shall not exceed 10.0 percent at fair value. At June 30, 2018, the System does not have investments (other than U.S. Government and U.S. Government guaranteed obligations) in any one issuer that represents 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 risk since the custodian's records establish the System's interest in the securities.

#### C. Rate of Return

For the year ended June 30, 2018, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 8.1 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

## Notes on Financial Statements

(continued)

### D. Fair Value Hierarchy

The System measures and records its investments using fair value hierarchy measurement guidelines established by Generally Accepted Accounting Principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest level to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest level to unobservable inputs (Level 3 measurements).

- Level 1 Unadjusted quoted prices for identical instruments in active markets.
- Level 2 Observable inputs other than quoted market prices.
- Level 3 Valuation derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The table below shows the fair value levels of the investments.

Equities and fixed income securities classified in Level 1 are valued using prices quoted in the active markets for those securities. Securities in Level 2 and Level 3 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features and ratings. Matrix pricing is used to value securities based on the securities' relationships to benchmark quoted prices. Level 3 securities use proprietary information or single source pricing.

Fair Value Hierarchy				
Investments by Fair Value Level	6/30/2018	Quoted Prices in Active Markets		
		for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Asset-Backed Securities	\$69,338,689	\$ -	\$69,338,689	\$ -
Convertible or Exchangeable Securities	39,685	-	39,685	-
Convertible Securities	112,172	112,172	-	-
Equity	282,745,637	282,745,637	-	-
Fixed Income Securities	83,569,296	-	83,519,707	49,589
Preferred Securities	1,766,733	819,286	947,447	-
Short-Term Investments	145,959,402	11,249,757	3,132,537	131,577,108
US Government Obligations	44,831,697	-	44,831,697	-
<b>Total Investment by Fair Value Level</b>	<b>\$628,363,311</b>	<b>\$294,926,852</b>	<b>\$201,809,762</b>	<b>\$131,626,697</b>
<b>Investment Measured at Net Asset Value (NAV)</b>				
Absolute Return	\$298,957,295			
Global Equity	224,119,787			
Global Fixed Income	220,325,136			
Global Multi-Asset	223,240,286			
Global Real Assets	154,460,273			
<b>Total Investments Measured at NAV</b>	<b>\$1,121,102,777</b>			
<b>Total Investments</b>	<b>\$1,749,466,088</b>			

Notes on Financial Statements  
(continued)

Investments Measured at NAV				
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Absolute Return	\$298,957,295	\$ -	Daily, Monthly, Quarterly	2 - 90 days
Global Equity	224,119,787	60,563,011	None, Daily, Monthly	0 - 30 days and N/A
Global Fixed Income	220,325,136	25,612,704	None, Daily, Monthly, Quarterly	0 - 90 days and N/A
Global Multi-Asset	223,240,286	-	Monthly	5 - 15 days
Global Real Assets	<u>154,460,273</u>	<u>24,897,060</u>	None, Daily, Quarterly	0 - 60 days and N/A
<b>Total investment measured at NAV</b>	<b><u>\$1,121,102,777</u></b>	<b><u>\$111,072,775</u></b>		

*Absolute Return.*

Equity long/short hedge funds:

This type includes investments in three hedge funds that invest both long and short primarily in the U.S. common stock market. Each of the 3 funds has different strategies. The first one is a long/short sector fund focused on Technology, Media, and Telecom industries. The fund is run with a relatively high gross exposure between 100% to 200% and a relatively low net exposure of + or - 20%. They use fundamental analysis to build a portfolio of 40 to 60 long positions and 80 to 120 short positions. The second one is a long/short healthcare fund that focuses on event-driven investments such as clinical trial outcomes, new product launches, and M&A activity. The Fund is diversified across all areas of healthcare, company stages, geographies, and strategies (equities, debt, royalties, option overlay) to mitigate risk. The third one is a U.S. small cap deep value long/short equity fund. The team looks for companies with management or capital structure issues. They identify undervalued companies and then perform a fundamental value analysis to find catalysts that may spark change in the company. The Fund will then, on its own or together with other members of a group, acquire a controlling interest in the company and then force management to enact the changes they feel are necessary for a turnaround. The fair values of each of these hedge funds have been determined using the NAV per share of the investments. The nature of each of the hedge fund strategies requires a longer hold period to realize value so each fund has quarterly liquidity and 45 day notice period for redemptions.

Multi-strategy:

This type includes investment in a hedge fund that is an event-driven multi-strategy fund that invests in distressed debt, risk arbitrage, event equities, convertible arbitrage, and volatility trades. The distressed portfolio seeks opportunities arising from distressed and stressed financial markets as well as bankruptcy, liquidations, and restructuring. Risk arbitrage strategy typically invests in large publicly announced merger deals and other arbitrage opportunities. The Fund tries to capture event equities opportunities across a range of soft events such as corporate restructuring, spin-offs, tender offers, and others. The majority of the assets are invested in U.S. and Western Europe.

Global Macro:

This type includes investment in four hedge funds. The first hedge fund in this group has 100 active ideas across fixed income, currencies, equities and commodities. The process is equally driven by analysis of the macro environment, flows of capital, and the expected reaction to changes in interest rates and other drivers. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments. The second hedge fund in this group is a Commodity Trading Advisor (CTA) that analyzes market prices to determine trends then uses tactical asset allocation to capture and ride market trends. The Fund is a diversified portfolio with exposure to currencies, commodities, bonds and short interest rates, and equity indices at various times. These exposures are typically achieved through the use of derivatives which



## Notes on Financial Statements

(continued)

allows quick response because of the high liquidity in the derivative markets. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments. The third hedge fund in this group uses a bottom-up, multi-manager trading platform structured across four core strategies, (Strat Arb., Relative Value Equity, Merger Arb/Event Driven, Fixed Income) with an aim to deliver repeatable alpha-driven returns with minimal volatility and market correlation. Risk management infrastructure with proprietary systems for monitoring of team limits and exposure mitigate risks. Trading technology designed to attract and support industry expertise. The fair values of each of these hedge funds have been determined using the NAV per share of the investments. The fourth hedge fund in this group seeks to harvest risk premium from four return sources that have traditionally shown up as alpha, but as investors and attribution modeling have become more sophisticated, have become increasingly characterized as alternative or "style" premiums such as: Value – Tendency for relatively cheap assets to outperform relatively expensive ones; Momentum – Tendency for recent relative performance to continue in the near future; Carry – Tendency for higher-yielding assets to provide higher returns than lower; Defensive – Tendency for lower-risk, high-quality assets to generate higher returns. They implement long and short relative value strategies to capture these structural returns across multiple asset classes including: equity sectors, equity indices, fixed income, currency, and commodities. The fair values of each of these hedge fund have been determined using the NAV per share of the investments.

### *Global Equity.*

#### U.S. Equity:

This type includes investment in one U.S. equity funds. The second manager believes, that small and mid- cap stocks of higher-quality companies trading at a discount have the potential to generate above-average returns with below-average risk over a longer-term investment horizon. They also believe that

markets are generally efficient over the long run, but are often inefficient in the short run. Mispricing's often exist where the market is overly focused on short-term data points or events, in situations driven by change and uncertainty, and in structural areas that receive less investor attention such as small and mid-cap companies. The team uses a bottom-up stock selection process to find resilient business. They have an extended time horizon focus, more than most other managers. Their process is applied through an absolute risk and return framework to control risks. Part of the risk controls are a disciplined sell process with price targets, market capitalization limits, and fundamental disappointments.

#### International Equity:

This type includes investment in one international equity fund. The fund in this group is an emerging markets equity fund. The Fund is a long only emerging markets equity fund that uses both quantitative and qualitative analysis to build a diversified portfolio of around 300 stocks. They use a bottom-up multi-factor quantitative relative value analysis to find companies with value characteristics and with improving growth prospects. A top-down qualitative approach is used to do a peer group forecast relative to the world equity markets to determine country and industry allocations. The fair values of each of these funds have been determined using the NAV per share of the investments.

#### Private Equity:

This type includes eight private equity fund-of-funds and two direct fund. The fund-of-funds invest as limited partners with private equity managers that then invest directly in underlying companies. The eight fund-of-funds are diversified by vintage year and investment type. They are invested in management buy-in, management buy-out, leveraged buy-out, venture capital, growth and expansion capital, mezzanine, distressed and venture debt, special situation, recapitalization and other private equity funds. The intent is to build a diversified portfolio of top tier private equity funds.

Notes on Financial Statements  
(continued)

Top tier private equity funds are extremely hard to access because of high demand so relationships and connections play a key role in gaining access to the best managers. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments.

These investments cannot be redeemed. Instead, the nature of the investments in this type are that distributions are received through the liquidation of underlying assets of the funds over five to ten years. The fair values of these funds are determined via a mark-to-market basis using assessments of similar companies that are traded in the liquid markets. The first direct fund's objective is to capitalize on the manager's experience in building insurance-backed portfolios in both life settlements and insurance-linked credit to generate low correlation, attractive risk-adjusted returns typically unavailable in the market. They use an opportunistic, value-driven investment approach backed by fundamental analysis and multi-area expertise in this niche asset class. The insurance contracts are held at book value unless a payment has occurred. The second direct fund makes structured equity investments in middle market companies in a diverse set of industries. It targets investments in companies with enterprise values between \$50 million and \$500 million with EBITDA margins in excess of 25% and conversion to free cash flow in excess of 70%. Target companies will have a history of growth uncorrelated to U.S. GDP. LLCP provides capital primarily for growth and expansion, mergers and acquisitions, management-led corporate divestitures and equity recapitalizations. Levine Leichtman avoids companies whose principal business activity focuses on high technology or biotechnology. The fair values of these funds are determined via a mark-to-market basis using assessments of similar companies that are traded in the liquid markets.

*Global Fixed Income.*

U.S. Fixed Income:

This type includes five funds. Three of the funds focus on the high yield segment of the debt market and the fourth invests in Mortgage Backed, Asset Backed and other distressed securities believed to be priced below the fundamental credit risk inherent in those securities. The fair values of the investments in these funds have been determined using NAV per share (or its equivalent) of the investments.

International Fixed Income:

This type includes one fund that invest in non-U.S. fixed income securities. The fund is a long only portfolio that uses a long-term value driven philosophy starting with a macro top-down approach supported by bottom-up credit analysis. Global and local macro-economics, politics, interest rates, and currency trends are analyzed to determine structural changes in emerging market capital markets. Country and asset allocations are then managed on an active basis. Bottom-up credit analysis is used to look for divergence between market prices and credit risk to spot unrealized value in securities. They may use an active approach focused on liquidity management of special situations, event driven, which may result in controlling positions. The fund invests in both U.S. dollar denominated debt and local currency denominated debt in the portfolio.

Private Debt:

This type includes three private debt funds focused on middle market direct lending funds that negotiate senior secured loans to borrowers that are too small to attract the attention of conventional banks and lenders. These investments cannot be redeemed. Instead, the nature of the investments in these private debt funds are that distributions are received through the liquidation of underlying assets of the funds over four to five years. Loan payments are also distributed on a quarterly basis. The loans are held at book value unless a payment default has occurred.

## Notes on Financial Statements

(continued)

### *Global Multi-Asset.*

This type includes two funds that invests across asset classes using a risk balanced approach in their asset allocation of the funds with the intent to balance risk across all four combinations of Rising and Falling Growth and Inflation. The main goal is to construct a portfolio that achieves the best risk-adjusted return at a 10% expected volatility by overweighting the lower risk asset classes and balance expected returns in inflationary, deflation, high growth and low growth periods. This is achieved through the use of derivatives and liquid long positions across multiple asset classes. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments.

### *Global Real Assets.*

#### *Inflation Hedges:*

This type includes two funds that invest in inflation sensitive asset classes to help hedge against inflation risks in the broader portfolio. One of the Funds uses a diversified commodity portfolio to lower commodity volatility more than equities, provide an inflation hedge, and perform better in most economic environments, except for recessions. The Fund uses \$U.S. denominated futures to invest across six sectors: energy, agricultural, livestock, industrial metals, precious metals, and food & fibers. The second Fund's goal is to provide strong relative performance vs. broad equity and fixed income markets during rising inflation. The portfolio is invested in inflation- sensitive assets and inflation linked assets. Exposure to the inflation-sensitive assets is achieved through global equity and derivative positions in precious metals, metal's and mining, agriculture, energy, and other commodities and commodity-dependent equities. Global inflation linked bonds such as TIPS and emerging market inflation linked bonds provide exposure to the assets directly linked to inflation. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments.

#### *Real Estate Funds:*

This type includes three real estate funds. The first fund is primarily a core portfolio of U.S. equity real estate with a goal to provide good returns while limiting downside risk through property type, geographic, and economic diversification with moderate leverage. The Fund is focused on owning and managing high-quality, well-leased properties, or properties with expansion and/or rehabilitation potential, and, to a limited extent, make forward commitments on to-be-built properties. The Fund is structured as a \$U.S. denominated open-ended fund with quarterly liquidity, subject to availability of capital. The second fund is a distressed real estate fund-of-funds that invests in local real estate managers that purchase distressed properties and renovate them. These investments cannot be redeemed. Instead, the nature of the investment in this fund is that distributions are received through the liquidation of the underlying properties in the funds over five to ten years. Rental income is received as a current yield from the underlying funds. The fair values of these funds are determined on an appraisal basis using assessments of similar real estate that has recently sold. The third fund seeks to deliver attractive returns by identifying and capitalizing on inefficiencies in the real estate secondary market, including; capital supply and demand imbalances, inconsistent information quality and sources, and various non-economic seller motivations. They use proactive sourcing outreach, in-house analytical research and active fund pricing library, and leveraging their relationship networks to identify and capture these inefficiencies. They acquire interests in existing funds, partnerships and other structured entities invested in underlying real estate. The acquisitions typically occur well into a fund's investment period, at which point underlying investments are identified and the harvesting period has begun. The fair values of these funds are determined on an appraisal basis using assessments of similar real estate that has recently sold.

Notes on Financial Statements  
(continued)

E. Quality Rating

The System's investment quality ratings at June 30, 2018, for separately managed fixed income accounts, were as follows:

Type of Investment	Fair Value	Ratings	Percentage of Fixed
US Government Obligations	\$44,831,697	AA	22.7%
Asset-Backed Securities	3,771,588	AAA	1.9%
	24,578,215	AA	12.4%
	550,066	A	0.3%
	1,706,126	BBB	0.9%
	553,238	BB	0.3%
	1,819,598	B	0.9%
	2,034,548	CCC	1.0%
	1,776,725	CC	0.9%
	1,756,118	D	0.9%
	30,792,468	NR	15.5%
Corporate and Other Bonds	325,345	AAA	0.2%
	15,086,943	AA	7.6%
	30,118,580	A	15.2%
	19,936,387	BBB	10.1%
	7,252,587	BB	3.7%
	1,807,524	B	0.9%
	341,213	CCC	0.2%
	8,852,573	Unrated	4.4%
<b>Total Fixed Income</b>	<b><u>\$197,891,539</u></b>		<b><u>100.0%</u></b>
Short-Term Investments			
Cash and Cash Equivalents	\$9,735,748	Unrated	
Uniformed STIF*	131,577,108	Unrated	
US Treasury Bill	11,249,757	AA	
<b>Total short-term investments</b>	<b><u>\$152,562,613</u></b>		

\*Short-term investment funds

As of June 30, 2018, the fixed income portfolio, excluding pooled funds, consisted of 71.3 percent invested in investment grade securities, 8.8 percent invested in below-investment-grade securities and 19.9 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.

## Notes on Financial Statements

(continued)

### F. Sensitivity to Interest Rate Risk

The System's investments' sensitivity to interest rates at June 30, 2018, were as follows:

Investment Type	Fair Value	Option Adjusted Duration (yrs)	Percentage of Fixed
US Government Obligations	\$44,831,697	7.9	22.7%
Corporate and Other Bonds	83,721,152	3.6	42.3%
Asset-Backed Securities	<u>69,338,690</u>	<u>5.9</u>	<u>35.0%</u>
<b>Total Fixed Income</b>	<b><u>\$197,891,539</u></b>	<b><u>5.4</u></b>	<b><u>100%</u></b>
<b>Short-Term Investments</b>			
Cash and Cash Equivalents	\$9,735,748	0.0	
Uniformed Enhanced STIF*	131,577,108	0.1	
US Treasury Bills	<u>11,249,757</u>	<u>0.3</u>	
<b>Total Short-Term Investments</b>	<b><u>\$152,562,613</u></b>	<b><u>0.1</u></b>	
*Short-term investment funds			

The duration of the System's overall fixed income portfolio excluding pooled fund was 5.4 years for the separately managed accounts. BCAG established option-adjusted duration was 6.0 years.

### G. Short-term Investments

The Short term investments of \$152.6 million includes a position of \$131.6 million of commingled cash held by our investment managers and cash held by the System in an enhanced short term investment fund managed by our custodian.

## Notes on Financial Statements

(continued)

### H. Foreign Currency Risk

The foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of the investment. The System hedges away 50 percent of the currency risk for the whole portfolio through the use of currency derivatives. The System's investments at June 30, 2018, held in currencies other than U.S. dollars were as follows:

International Securities	Short-Term & Other Investments	Convertible & Fixed Income	Equity	Total
Australian Dollar	\$26	\$2,633,832	\$7,995,264	\$10,629,122
Brazil Real	2,627	1,866,936	485,070	2,354,633
Canadian Dollar	-	-	1,687,685	1,687,685
Colombian Peso	-	947,013	-	947,013
Danish Krone	-	-	9,160,824	9,160,824
Euro Currency Unit	18,333	720,610	50,395,877	51,134,820
Hong Kong Dollar	1,654	-	10,054,903	10,056,557
Indonesian Rupiah	-	1,725,832	114,304	1,840,136
Japanese Yen	1,288,395	-	49,668,044	50,956,439
Malaysian Ringgit	-	3,044,457	-	3,044,457
Mexican Peso	-	6,306,864	-	6,306,864
New Taiwan Dollar	72,248	-	2,273,825	2,346,073
New Zealand Dollar	-	-	226,383	226,383
Norwegian Krone	9	-	1,897,934	1,897,943
Peruvian Sol	-	1,178,325	-	1,178,325
Philippines Peso	-	-	110,286	110,286
Polish Zloty	-	2,853,553	-	2,853,553
Pound Sterling	23,136	2,685,468	54,807,178	57,515,782
Singapore Dollar	-	-	819,484	819,484
South African Rand	5	2,359,999	135,160	2,495,164
South Korean Won	114,716	-	4,044,814	4,159,530
Swedish Krona	-	-	5,160,127	5,160,127
Swiss Franc	97	-	9,649,789	9,649,886
Thailand Baht	-	-	652,153	652,153
Turkish Lira	-	<u>264,603</u>	-	<u>264,603</u>
<b>Grand Total</b>	<b><u>\$1,521,246</u></b>	<b><u>\$26,587,492</u></b>	<b><u>\$209,339,104</u></b>	<b><u>\$237,447,842</u></b>

### I. Derivative Financial Instruments

In accordance with the Board's investment policies, the System regularly invests in derivative financial instruments 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 2018, the System had exposure to 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. Asset-backed securities, such as collateralized mortgage obligations (CMOs), are sensitive to changes in interest rates and pre-payments. It should also be noted that the System also 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.

## Notes on Financial Statements

(continued)

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 the fluctuations in 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.

At June 30, 2018, the System held two types of derivative financial instruments: futures and currency forwards. These two types of derivatives 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 of GASB 53 are reported at fair value. The changes 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 value 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, 2018, were as follows:

Types of Futures	Base Exposure	Notional Cost
Cash and cash equivalents		
Short	(\$89,082,209)	(\$90,453,146)
Equity		
Long	214,189,920	218,465,593
Fixed income securities		
Short	<u>(23,183,280)</u>	<u>(23,104,099)</u>
<b>Total</b>	<b><u>\$101,924,431</u></b>	<b><u>\$104,908,348</u></b>

Notes on Financial Statements  
(continued)

*Currency Forwards.*

Currency forwards represent foreign exchange contracts. They are used to affect 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 fair 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 a summary information on the System's currency forward contracts at June 30, 2018:

Foreign Currency Contracts Purchased	Notional (local currency)	Cost	Fair Value Payable in U.S.Dollars	Unrealized Gain/(loss)
Australian Dollar	(3,490,000)	\$2,635,788	(\$2,578,960)	\$56,828
Colombian Peso	(2,800,000,000)	967,692	(951,857)	15,835
Euro Currency Unit	(8,880,000)	10,617,550	(10,404,745)	212,805
Japanese Yen	(270,000,000)	2,492,051	(2,444,322)	47,729
New Taiwan Dollar	(107,300,000)	3,609,028	(3,532,961)	76,067
Polish Zloty	(1,420,000)	420,193	(379,367)	40,826
Pound Sterling	(650,000)	872,128	(861,101)	11,027
South African Rand	(20,100,000)	<u>1,648,045</u>	<u>(1,465,013)</u>	<u>183,032</u>
		23,262,475	(22,618,326)	644,149
			<b>Fair Value</b>	
			<b>Receivable in U.S.</b>	
			<b>Dollars</b>	<b>Unrealized Gain/(loss)</b>
Foreign Currency Contracts Sold	Notional (local currency)	Cost	Fair Value Receivable in U.S. Dollars	Unrealized Gain/(loss)
Australian Dollar	3,120,000	(\$2,356,667)	\$2,305,546	(\$51,121)
Canadian Dollar	1,900,000	(1,494,373)	1,444,606	(49,767)
Colombian Peso	6,790,000,000	(2,482,406)	2,308,254	(174,152)
Euro Currency Unit	320,000	(373,234)	374,946	1,712
New Taiwan Dollar	107,300,000	(3,606,032)	3,532,961	(73,071)
Norwegian Krone	21,500,000	(2,717,196)	2,641,879	(75,317)
Swedish Krona	50,400,000	(5,985,961)	5,656,763	(329,198)
Turkish Lira	5,200,000	<u>(1,240,742)</u>	<u>1,130,287</u>	<u>(110,455)</u>
		(\$20,256,611)	\$19,395,242	(\$861,369)
<b>Net Unrealized Gain/(loss) on Foreign Currency Spot and Forward Contracts</b>				<b><u>(\$217,220)</u></b>



## Notes on Financial Statements

(continued)

### J. Securities Lending

The Board of Trustees' policies permit the System to lend its securities to broker/dealer 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 of fair value. 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 the balance sheet since the Retirement System does not have the ability to pledge or sell the collateral securities absent borrower default.

The System did not impose any restrictions during fiscal year 2018 on the amounts of loans the lending agent made on its behalf. At June 30, 2018, 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 to equity repurchase securities.

At June 30, 2018, 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.

The following represents the balances relating to the securities lending transactions at June 30, 2018:

Securities Lent	Underlying Securities	Cash Collateral Investment Value	Securities Collateral Investment Value
Lent for Cash Collateral			
US Government Securities	\$5,733,214	\$5,853,251	
Corporate and Other Bonds	7,662,199	7,867,385	
Common and Preferred Stock	4,099,426	4,287,405	
Lent for Securities Collateral			
US Government Securities	18,444,465	-	\$19,994,472
Corporate and Other Bonds	-	-	-
Common and Preferred Stock	<u>40,255,085</u>	-	<u>45,126,773</u>
<b>Total Securities Lent</b>	<b><u>\$76,194,389</u></b>	<b><u>\$18,008,041</u></b>	<b><u>\$65,121,245</u></b>

### K. Reclassifications

During the fiscal year 2018, the System requested that investment managers for commingled funds provide the management fees associated with commingled funds. Previously, such management fees had been netted against investment income. Accordingly, the System revised the classification

to report these management fees as an investment activity expense on the Statement of Changes in Fiduciary Net Position, rather than netting the management fees against investment income. This change in classification has no effect on the financial statements for any period.

Notes on Financial Statements  
(continued)

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

**A. Net Pension Liability**

The components of the net pension liability at June 30, 2018, were as follows:

Total pension liability	\$2,125,849,930
Plan fiduciary net position	<u>1,759,902,734</u>
Net pension liability	<u>\$365,947,196</u>
Plan fiduciary net position as a percentage of the total pension liability	82.8%

**B. Actuarial Methods and Assumptions**

The Total Pension Liability was determined by an actuarial valuation as of June 30, 2018, using the following actuarial assumptions, applied to all periods included in the measurement.

Discount rate, net of plan investment expenses	7.25%
Inflation	2.75%
Salary increase, including inflation	2.75% + merit
Investment rate of return, net of plan investment expenses	7.25%
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 presented at a Board meeting on April 27, 2016.

The rate of employer contributions to the System 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 System’s actual administrative expenses.

The County is required to contribute at an actuarially determined rate; the rate for the year ended June 30, 2018, was 30.35 percent of annual covered payroll. The decision was made to commit additional funding and a rate of 38.84 percent was adopted for fiscal year 2018. Since the System’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, with the 2016 fiscal year contribution it was increased to 95.0 percent, and with the 2017 fiscal year contribution it was increased again to 97.0 percent and with the 2018 fiscal year contribution it was increased to 98.0 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 to 100 percent in contributions at or before fiscal year 2020.

Mortality rates with adjustments for mortality improvements were based on 110% and 100% of the RP-2014 Healthy Annuitant Mortality Table for males and females respectively, projected using the RPEC-2015 model, with an ultimate rate of 0.65% for ages 20-85 grading down to an ultimate rate of 0% for ages 115-120 and convergence to the ultimate rate in the year 2015. Five percent of pre-retirement deaths are assumed to be service-connected.

The actuarial assumptions used in the June 30, 2018, valuation were based on the results of an actuarial experience study for the period July 1, 2010 to June 30, 2015.

## Notes on Financial Statements

**C. Long Term Expected Rate of Return**

The long term expected 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 excess rates of return (over cash) for each major asset class included in the System's target asset allocation as of June 30, 2018, are summarized below:

Asset Class	Long Term Expected Real Rate of Return
Absolute Return	7.00%
Core Fixed Income	1.80%
High Yield	4.25%
International Developed Mkt. Equities	4.35%
International Emerging Mkt. Equities	7.20%
Real Assets	4.65%
Risk Parity	6.00%
US Equities	4.65%

**D. Discount Rate**

The discount rate used to measure the total pension liability was 7.25 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 2017 actuarial valuation. The administrative expenses attributable to current actives were assumed to equal 0.25 percent of covered payroll. The inflows to the plan were assumed to continue at the average aggregate rate for the 2017 active population of 7.00 percent of payroll and County contributions were projected at 38.84 percent for fiscal year 2018 and continuing at 38.84 until 2031. After that time the County contribution was assumed to drop to the normal cost plus expenses (16.67 percent) since the unfunded actuarial liability is expected to be fully funded by that time.

**E. Sensitivity of the Net Pension Liability to Changes in the Discount Rate**

The following presents the net pension liability of the County, calculated using the discount rate of 7.25 percent, as well as what the County's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25 percent) or 1-percentage-point higher (8.25 percent) than the current rate.

Sensitivity of Net Pension Liability			
	1% Decrease 6.25%	Discount Rate 7.25%	1% Increase 8.25%
Total Pension Liability	\$2,314,669,124	\$2,125,849,930	\$1,818,538,429
Plan Fiduciary Net Position	<u>1,759,902,734</u>	<u>1,759,902,734</u>	<u>1,759,902,734</u>
Net Pension Liability	<u>\$554,766,390</u>	<u>\$365,947,196</u>	<u>\$58,635,695</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	76.0%	82.8%	96.8%

**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.

**Financial Section**

**Required Supplementary Information (Unaudited)**

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

Year Ended June 30

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	\$42,113,858	\$39,667,968	\$43,407,620	\$41,720,784	\$39,647,527
Interest	147,114,045	140,285,987	136,679,066	132,950,836	125,659,578
Changes in benefit terms	956,369	839,465	806,226	1,702,105	-
Differences between expected and actual experience	(1,127,589)	6,047,673	(54,053,500)	11,019,203	-
Changes in assumptions	-	-	20,479,405	-	-
Benefit payments, including refunds of member contributions	<u>(96,896,205)</u>	<u>(93,608,871)</u>	<u>(90,536,075)</u>	<u>(84,849,425)</u>	<u>(78,916,881)</u>
Net change in Total Pension Liability	92,160,478	93,232,222	56,782,742	102,543,503	86,390,224
Total Pension Liability - beginning	<u>2,033,689,452</u>	<u>1,940,457,230</u>	<u>1,883,674,488</u>	<u>1,781,130,985</u>	<u>1,694,740,761</u>
Total Pension Liability - ending (a)	<u>\$2,125,849,930</u>	<u>\$2,033,689,452</u>	<u>\$1,940,457,230</u>	<u>\$1,883,674,488</u>	<u>\$1,781,130,985</u>
Plan Fiduciary Net Position					
Contributions - employer	67,895,377	67,410,252	65,548,338	60,928,766	56,094,690
Contributions - member	12,262,288	12,223,468	12,020,447	11,473,273	10,905,744
Net investment income	131,997,257	161,013,714	(13,447,090)	21,800,261	210,256,032
Benefit payments, including refunds of member contributions	(96,896,205)	(93,608,871)	(90,536,075)	(84,849,425)	(78,916,881)
Administrative expenses	<u>(619,827)</u>	<u>(477,564)</u>	<u>(500,255)</u>	<u>(455,440)</u>	<u>(433,541)</u>
Net change in Plan Fiduciary Net Position	\$114,638,890	\$146,560,999	(\$26,914,635)	\$8,897,435	\$197,906,044
Plan Fiduciary Net Position - beginning	<u>1,645,263,844</u>	<u>1,498,702,845</u>	<u>1,525,617,480</u>	<u>1,516,720,045</u>	<u>1,318,814,001</u>
Plan Fiduciary Net Position - ending (b)	<u>\$1,759,902,734</u>	<u>\$1,645,263,844</u>	<u>\$1,498,702,845</u>	<u>\$1,525,617,480</u>	<u>\$1,516,720,045</u>
Net Pension Liability (Asset) - ending (a)-(b)	<u>365,947,196</u>	<u>388,425,608</u>	<u>441,754,385</u>	<u>358,057,008</u>	<u>264,410,940</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	82.8%	80.9%	77.2%	81.0%	85.2%
Covered Payroll	<u>\$174,807,871</u>	<u>\$173,558,836</u>	<u>\$168,808,493</u>	<u>\$160,761,916</u>	<u>\$153,979,385</u>
Net Pension Liability as a Percentage of covered Payroll	209.3%	223.8%	261.7%	222.7%	171.7%

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

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 Uniformed Retirement System.

**Required Supplementary Information**  
(continued)

<b>Schedule of Net Pension Liability</b>					
Year Ended June 30					
	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Total Pension Liability	\$2,125,849,930	\$2,033,689,452	\$1,940,457,230	\$1,883,674,488	\$1,781,130,985
Plan Fiduciary Net Position	<u>1,759,902,734</u>	<u>1,645,263,844</u>	<u>1,498,702,845</u>	<u>1,525,617,480</u>	<u>1,516,720,045</u>
Net Pension Liability	<u>\$365,947,196</u>	<u>\$388,425,608</u>	<u>\$441,754,385</u>	<u>\$358,057,008</u>	<u>\$264,410,940</u>
Plan Fiduciary Net Position as a Percentage of the Total Plan Liability	82.8%	80.9%	77.2%	81.0%	85.2%
Covered Payroll	\$174,807,871	\$173,558,836	\$168,808,493	\$160,761,916	\$153,979,385
Net Pension Liability as a Percentage of Covered Payroll	209.3%	223.8%	261.7%	222.7%	171.7%

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

<b>Schedule of Money-Weighted Rate of Return</b>	
<b>Fiscal Year</b>	<b>Annual Money-Weighted Rate of Return, Net of Investment Expense</b>
2018	8.1%
2017	10.9%
2016	-0.9%
2015	1.5%
2014	16.1%
2013	10.1%
2012	-0.3%
2011	24.2%
2010	15.3%
2009	-19.7%

**Required Supplementary Information**  
(continued)

Schedule of Employer Contributions					
Fiscal Year	Contributions in Relation to the		Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
	Actuarially Determined Contribution	Actuarially Determined Contribution			
2018	\$67,895,377	\$67,895,377	\$ -	\$174,807,871	38.84%
2017	67,410,252	67,410,252	-	173,558,836	38.84%
2016	65,548,338	65,548,338	-	168,808,493	38.83%
2015	60,928,766	60,928,766	-	160,761,916	37.90%
2014	56,094,690	56,094,690	-	153,979,385	36.43%
2013	53,722,160	53,722,160	-	153,491,886	35.00%
2012	50,351,335	50,351,335	-	148,924,386	33.81%
2011	45,817,015	45,817,015	-	149,924,787	30.56%
2010	40,771,184	40,771,184	-	154,086,107	26.46%
2009	40,855,102	40,855,102	-	154,403,258	26.46%
2008	39,085,662	39,085,662	-	148,445,355	26.33%
2007	36,486,832	36,486,832	-	140,280,015	26.01%

Notes to Schedule	
Valuation Date	6/30/2016
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
Asset valuation method	3-year smoothed market
Amortization method	Corridor method, amortize liability outside of 98% corridor over an open 15 year period with level % of payroll.
Discount rate	7.25%
Amortization growth rate	2.75%
Price inflation	2.75%
Salary increases	2.75% plus merit component based on employee's years of service
Mortality	110% and 100% of the RP-2014 Healthy Annuitant Mortality Table for males and females respectively projected using the RPEC-2015 model, with an ultimate rate of 0.75% for ages 20-85 grading down to an ultimate rate of 0% for ages 115-120 and convergence to the ultimate rate in the year 2015.
A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2018, can be found in the June 30, 2016, actuarial valuation report.	

## Required Supplementary Information

### Summary of Significant Changes to the Pension System

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

Contribution Rates		
Fiscal Year	Employer	Employee
2018	38.84%	7.08%, Option B 8.83% in excess of Social Security taxable wage base.
2017	38.84%	7.08%, Option B 8.83% in excess of Social Security taxable wage base.
2016	38.83%	7.08%, Option B 8.83% in excess of Social Security taxable wage base.
2015	37.90%	7.08%, Option B 8.83% in excess of Social Security taxable wage base.
2014	36.43%	7.08%, Option B 8.83% in excess of Social Security taxable wage base.

July 2017	Service-Connected Disability Social Security offset reduced from 10 percent to 5 percent.
July 2016	Service-Connected Disability Social Security offset reduced from 15 percent to 10 percent.
January 2014	Service-Connected Disability Social Security offset was reduced from 25.0 percent to 15.0 percent. The Board of Trustees increased from 8 to 10 members, one is appointed and one is elected by the retirees of the System.
January 2013	Employees hired on or after January 1, 2013, will be automatically enrolled in Option E. The maximum amount of accrued sick leave is capped at 2,080 hours; DROP does not include the Pre-Social Security Benefit.

## Other Supplementary Information

## Schedule of Investment &amp; Consultant Expenses

For the Year Ended June 30, 2018

Investment Activity Expenses		
Investment manager fees	\$15,140,277	
Custodial fees	74,087	
Consultant Expenses		
Consultant expenses	327,439	
Allocated Administration Expense	<u>384,846</u>	
<b>Total investment and consultant expenses</b>		<b><u>\$15,926,649</u></b>

## Schedule of Administrative Expenses

as of June 30, 2018

Personnel services		
Salaries and wages	\$323,364	
Fringe benefits	<u>139,815</u>	
Total personnel services		\$463,179
Professional services		
Actuarial	50,483	
Audit	<u>6,447</u>	
Total professional services		56,930
Communications		
Phone charges	4,240	
Printing, binding and copying	2,496	
Postage	<u>3,226</u>	
Total communications		9,962
Supplies		
Office supplies	<u>2,800</u>	
Total supplies		2,800
Other services and charges		
Staff travel and development	1,244	
Professional membership	745	
Professional subscription	214	
Insurance	10,856	
Building rent	19,584	
Depreciation expense	434	
Computer system	36,583	
Other operating	<u>17,296</u>	
Total other services and charges		<u>86,956</u>
<b>Total Administrative Expenses</b>		<b><u>\$619,827</u></b>





**Report of Independent Auditor on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards**

To Board of Supervisors  
County of Fairfax, Virginia

To the Board of Trustees  
Fairfax County Uniformed Retirement System

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Fairfax County Uniformed Retirement System (the "System"), a pension trust fund of the County of Fairfax, Virginia, as of and for the year ended June 30, 2018 and the related notes to the financial statements, and have issued our report thereon dated November 5, 2018.

**Internal Control over Financial Reporting**

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

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

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

**Compliance and Other Matters**

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

**Purpose of this Report**

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



Tysons Corner, Virginia  
November 5, 2018



## County of Fairfax, Virginia

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

October 18, 2018

Dear Members of the Board of Trustees:

The U.S. economy continued its near historically long growth streak over the fiscal year ending June 30, 2018. The Federal Reserve Bank continued its path of slowly tightening monetary policy, in contrast to most other central banks whose stimulative low interest rate policies are expected to persist into 2019 and perhaps beyond. U.S. equities posted their ninth consecutive year of positive returns, and outperformed international equities with the S&P 500 index gaining 14.4% versus 6.8% for the MSCI EAFE Index. Foreign equity markets were impacted by anti-establishment political trends and fears over U.S. trade policy changes. Emerging market equities underperformed the U.S. but outperformed developed international equities, though volatility saw an uptick toward the end of the year as the markets reacted to U.S. Dollar strength and trade policy uncertainty. Higher interest rates resulted in a second year of negative returns for U.S. high quality fixed income, with the Bloomberg Barclays U.S. Aggregate Bond Index declining by 0.4%.

The large cap domestic equity market, as measured by the S&P 500 Index capped off the fiscal year with a 14.4% return with all smaller cap domestic equity indices posting even greater returns. The domestic bond market, as measured by the Barclays Aggregate Bond Index, returned -0.4% over the same period. The global equity market, as measured by the MSCI All Country World Index (net), returned 10.7% for the fiscal year, and emerging markets posted slightly lower returns with the MSCI EM Index returning 8.2% over the fiscal year ending June 30, 2018.

During the quarter ended September 30th, 2017 global equities posted returns of 5.2%, according to the MSCI ACWI Index. Small-cap stocks bested large-cap equities. Returns, in U.S. dollar terms, were boosted by a stronger euro, sterling and Canadian dollar. Energy, materials and information technology led performance; regionally, Norway, Italy and Portugal were top performers. At home, the S&P 500 gained 4.5% and the Russell 2000 Index returned 5.7% for the three months ended September 30. Growth bested value; economic growth overshadowed the fallout from hurricanes and floods, and the threat of a nuclear outburst between the U.S. and North Korea, confounding ever-expanding valuations of financial assets. Emerging market stocks maintained their lead with gains of 7.9%, according to the MSCI Emerging Markets Index, aided by Brazil, Russia and China. Real estate was the top-performing sector, dominated by China. Energy took second place with higher oil prices fueling returns. U.S. credit also fared well in the quarter ending September 30th, 2017. The Barclays U.S. Aggregate Index was in the black, pushing returns of the 2017 calendar year to just over 3.0%. High-yield debt was up 2.0% with spreads modestly tighter than the second quarter; the S&P LSTA Leveraged Loan Index returned 1.0% in the third quarter of 2017, bringing gains so far in 2017 to 3.0%. The Barclays Long Treasury Index gained 0.6%, the Barclays Long Credit Index was up 2.2%, and the Barclays Long Government/Credit



### Fairfax County Retirement Systems

12015 Lee Jackson Memorial Hwy, Suite 350, Fairfax, VA 22033

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

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

Index returned 1.5%. Yields compressed 10 basis points in the third quarter of 2017 for the Long Credit and Long Government/Credit Indices to 4.2% and 3.6%, respectively. The long Treasury yield remained unchanged at 2.8%. As in public equities, emerging markets led the pack. Emerging-market local-sovereign debt returned 3.6%, clocking returns so far in 2017 of over 14%, helped, in large part, by currency appreciation.

Global equities returned 5.7% in the fourth quarter of 2017 and 24% for the year. Global stocks saw earnings per share rise nearly 19% in 2017, according to FactSet, the fastest growth since 2011. The S&P 500 Index was up 6.6% in the fourth quarter of 2017, bolstered by the prospect of corporate tax cuts. Maintaining their lead, emerging market equities gained 7.4% in the fourth quarter of 2017 and ended the year with returns of 37.3%. Healthcare and consumer discretionary dominated sector performance for the quarter, while utilities and telecommunication services lagged. Information technology led in 2017, largely driven by one stock, Chinese internet giant Tencent, which was up 114.3% for the year. Among countries, South Africa, Greece and India led performance, while Malta, Mexico and Pakistan were the stragglers. Credit also didn't miss a beat in the fourth quarter of 2017. The U.S. yield curve flattened as short rates rose but longer-dated bond yields declined. The Bloomberg Barclays U.S. Aggregate gained 0.4% in the fourth quarter. Long Treasuries and long credit maintained their trajectory, returning 2.4% and 3.2%, respectively, in the quarter. U.S. high yield gained 0.5%, while the S&P Leveraged Loans Index posted a 1.1% return. Outside of the U.S., the rally continued within emerging markets. Emerging market currencies were the outperformer, up 2%. Local debt, largely helped by currencies, returned 80 basis points.

Volatility dulled returns in the first quarter of 2018 amid heightening concerns around trade tensions between the United States and China. Developed market stocks outside of North America declined 1.5%, according to the MSCI EAFE Index, while emerging market equities eked out gains of 1.4%. The currency-hedged MSCI EAFE Index lost 4.3% during the quarter as most currencies strengthened against the dollar. U.S. stocks fell 3.7% in February, snapping their 15-month winning streak; they ended the quarter in the red, losing a modest 0.8%. Information technology dominated sector performance, posting strong returns globally. Credit was mostly subdued in the first quarter of 2018 with the Bloomberg Barclays Aggregate down 1.5% and the Bloomberg Barclays High Yield Index losing 0.9%; breaking from the pack, the S&P LSTA Leveraged Loan Index was up 1.4%. U.S. long credit was down 3.8%, while long Treasuries fell 3.3% with yields on the 10-year note at 2.74%. Outside the U.S., emerging markets continued to rally with local debt leading the way. The JPM GBI-EM Index returned 4.4% in the first quarter of 2018, bolstered by emerging market currencies which were up 2.5%. Hard-currency sovereign debt didn't fare as well, falling 2.0% as spreads widened.

Global equities eked out a modest 0.5% in the second quarter of 2018, according to the MSCI ACWI Index. Growth stocks outperformed value while large-cap equities bested small caps in non-U.S. markets. Bolstered by rising oil prices, energy was the strongest performing sector with gains of 10.3%. Financials and telecom sectors lagged with losses of 5.6% and 4.1%, respectively. Excluding the U.S., developed market equities were in the red at 1.2%, according to the MSCI EAFE Index, as a stronger U.S. dollar erased gains in local equity markets. The S&P 500 returned 3.4%, buoyed by a robust employment report with joblessness hitting an 18-year old low in May. Value beat growth in small-cap stocks while growth outperformed value in the large caps; small-cap stocks bested large caps. Emerging markets took a hit with stocks posting their worst quarter since 2015 with losses of nearly 8% in the second quarter of 2018, according to the MSCI EM Index. Within sectors, financials, real estate and industrials were the worst performers. Emerging market currencies sold off as the U.S. dollar strengthened and the 10-year Treasury yield breached 3% for the first time in almost five years. Of note, MSCI said it would add 236 China A-share stocks to its emerging markets index, in addition to including Argentina and Saudi Arabia. The Bloomberg Barclays Aggregate Index was down 0.2% as corporate spreads remained relatively flat in the second Quarter of 2018. The Bloomberg Barclays High Yield Index gained 1%, while the S&P LSTA Leveraged Loan Index was up 0.7% with loans leading high-yield performance so far this year. The U.S. Long Credit Index fell 2.7% and the U.S. Long Treasury gained 0.3% with the 10-year now yielding 2.86%.

### Uniformed System

For fiscal year 2017 the Uniformed Retirement System continued to focus on optimizing and diversifying the portfolio and implementing a diversified investment program to achieve the System's strategic long-term goals. This disciplined investment process has been effective in achieving a long-term record of consistent asset growth.

The time weighted method of calculating performance is used if there is a greater than 10% cashflow in the account, otherwise the Modified Dietz method is used to calculate the rate of return. As of June 30th, 2018, the Fairfax County Uniformed Retirement System stood at \$1.759 billion, up from \$1.645 billion at the end of fiscal year 2017. For the year ending June 30th, 2018, the system returned +8.87% gross of fees (8.07% net of fees), ranking in the 42nd percentile of all public funds in the InvestorForce Public Defined Benefit Net Universe. For the three and five-year periods (annualized), the system returned, gross of fees, +6.47% (+5.92% net of fees), ranking in the 78th percentile, and +7.43% gross of fees (+6.95% net of fees) ranking in the 75th percentile, respectively. Active management added 160 basis points over the 2018 fiscal year, as well as 30 and 110 basis points over the trailing three and five year periods.

During the past twelve months, the System continued to focus on further diversifying risk and implementing the previously adopted changes to long term asset allocation targets. Aspect Capital was added to the Absolute Return lineup and the Landmark Real Estate Fund VIII was added to the Real Estate manager lineup.

Sincerely,



Brian Morales, CAIA  
Chief Investment Officer  
Fairfax County Uniformed Retirement System

## Investment Section

Investments by Category and Investment Manager**				
For Year Ended June 30, 2018				
Asset Class	Manager	Investment Style	Fair Value	% of Total Portfolio
<b>Absolute Return</b>				
	AQR Style Premia*	Relative Value	\$34,315,786	2.0%
	Aspect Capital Limited*	Global Macro	33,178,467	1.9%
	Bridgewater Associates Pure Alpha*	Global Macro	50,467,676	2.9%
	Criterion Capital Management*	Equity Long/Short	36,033,884	2.0%
	Davidson Kempner Capital Management*	Multi-Strategy	33,794,997	1.9%
	Millennium Management*	Relative Value	39,815,396	2.3%
	Orbimed Advisors*	Equity Long/Short	30,391,254	1.7%
	Starboard Value and Opportunity*	Event Driven	40,959,836	2.3%
<b>Global Equity</b>				
	Acadian Asset Management*	Int'l Emerging Markets	\$119,312,167	6.8%
	Apollo Financial Credit Investment III, LLC*	Private Market Equity	8,975,409	0.5%
	HarbourVest Private Equity*	Private Market Equity	23,535,584	1.3%
	J.P. Morgan Private Equity*	Private Market Equity	3,785,556	0.2%
	Kaboutar Management*	Int'l Developed Small Cap	50,529,564	2.9%
	Levine Leichtman Capital Partners, Inc*	Private Market Equity	2,627,042	0.1%
	Marathon Asset Management - London	Int'l Developed Markets	189,769,346	10.8%
	Pantheon Private Equity*	Private Market Equity	15,443,292	0.9%
	Wellington Management Company	U.S. SMid Cap Value	49,903,746	2.8%
<b>Global Fixed Income</b>				
	Alcentra*	Credit	\$16,013,534	0.9%
	Anchorage Capital Partners*	High Yield Bonds	37,341,981	2.1%
	Ashmore Investment Management*	Emerging Markets Debt	64,796,258	3.7%
	Brandywine Asset Management	Global Bonds	47,519,584	2.7%
	DoubleLine Capital	Mortgage-Backed Securities	61,692,680	3.5%
	Garcia Hamilton & Associates	Core Bonds	63,572,968	3.6%
	GoldenTree Asset Management*	High Yield Bonds	37,626,414	2.1%
	King Street Capital*	High Yield Bonds	2,686,423	0.2%
	Manulife Asset Management	Core Bonds	42,973,420	2.5%
	PIMCO DiSCO II*	Private Credit	49,336,267	2.8%
	SJC Direct Lending Fund*	Credit	12,524,259	0.7%
<b>Global Multi-Asset</b>				
	AQR GRP*	Core Risk Parity	\$112,737,875	6.4%
	Bridgewater All Weather*	Core Risk Parity	110,502,411	6.3%
<b>Global Real Assets</b>				
	Cohen & Steers Capital Management	Global Real Estate Securities	\$52,397,246	3.0%
	Gresham Inflation Hedges*	Commodity Futures	31,720,901	1.8%
	Landmark Partners*	Real Estate	2,077,482	0.1%
	Sigular Guff*	Real Estate	26,761,641	1.5%
	UBS Realty*	Real Estate	59,350,369	3.4%
	Wellington Diversified Inflation Hedges*	Multi-Real Asset	34,549,880	2.0%
<b>Short Term</b>				
	BNY Mellon Cash Investment Strategies	Plan Level Cash Accounts	\$24,953,422	1.4%
	Cash Held at County Treasurer	Operating Cash Account	2,166,208	0.1%
	Parametric Portfolio Associates LLC	Overlay	102,910,434	5.9%
<b>Total Investments</b>			<b>\$1,759,050,659</b>	<b>100.00%</b>
* Pooled Funds		** See pages 8-9 for complete listing of investment professionals		

## Uniformed Retirement System – Allocation of Market Exposures

### Target Asset Allocation

The asset structure shown below represents the Trustees' assessment of their optimal asset allocation as of June 30, 2018. 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.

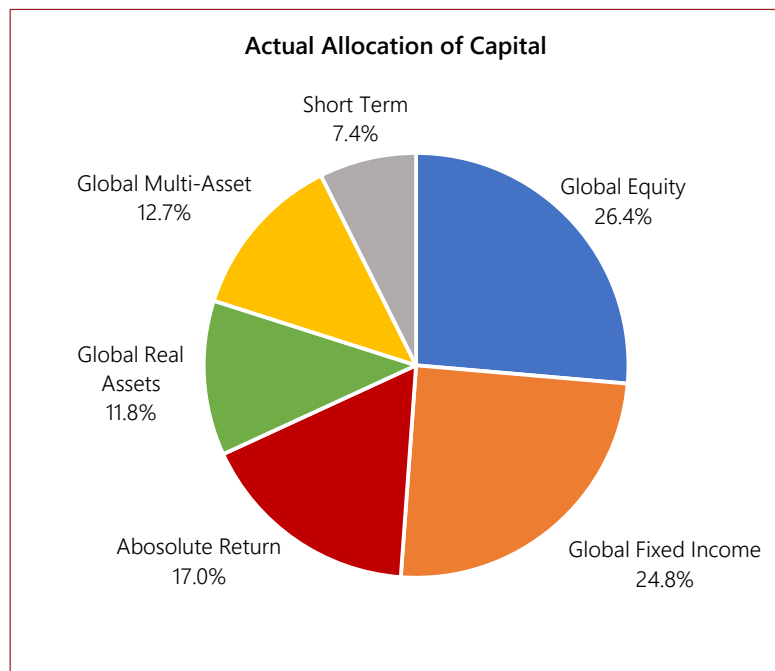
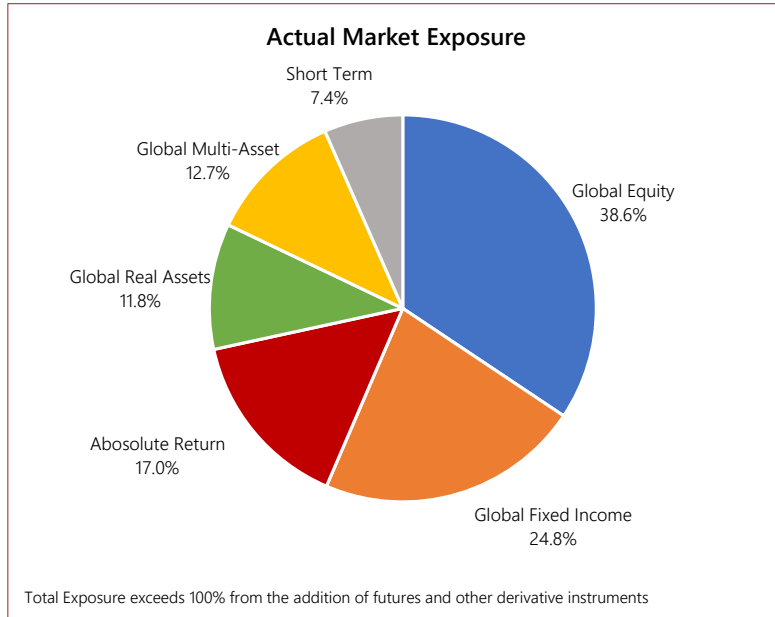
The pie chart below details the target asset mix, consistent with the achievement of the long-term objectives of the System, as of June 30, 2018.



**Actual Asset Allocation as of June 30, 2018**

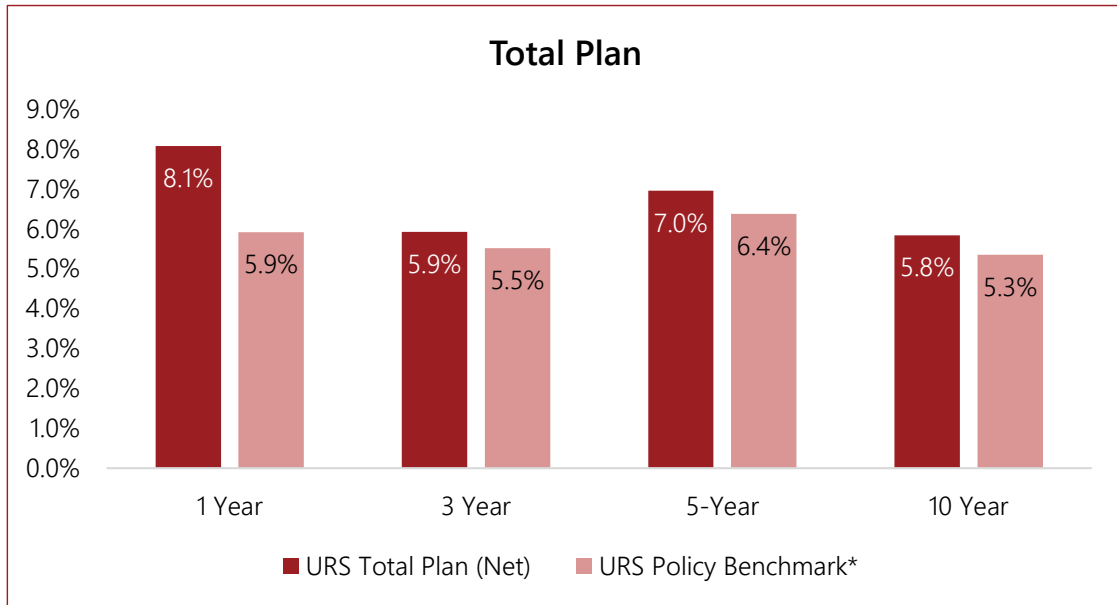
The asset structure of Uniformed Retirement System has historically reflected a proper balance of the System's needs for liquidity, growth of assets, and risk tolerance. The System's investment policy is designed to continue to meet its long-term investment objectives while, at the same time, providing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

The pie chart below details the actual asset allocation as of June 30, 2018.

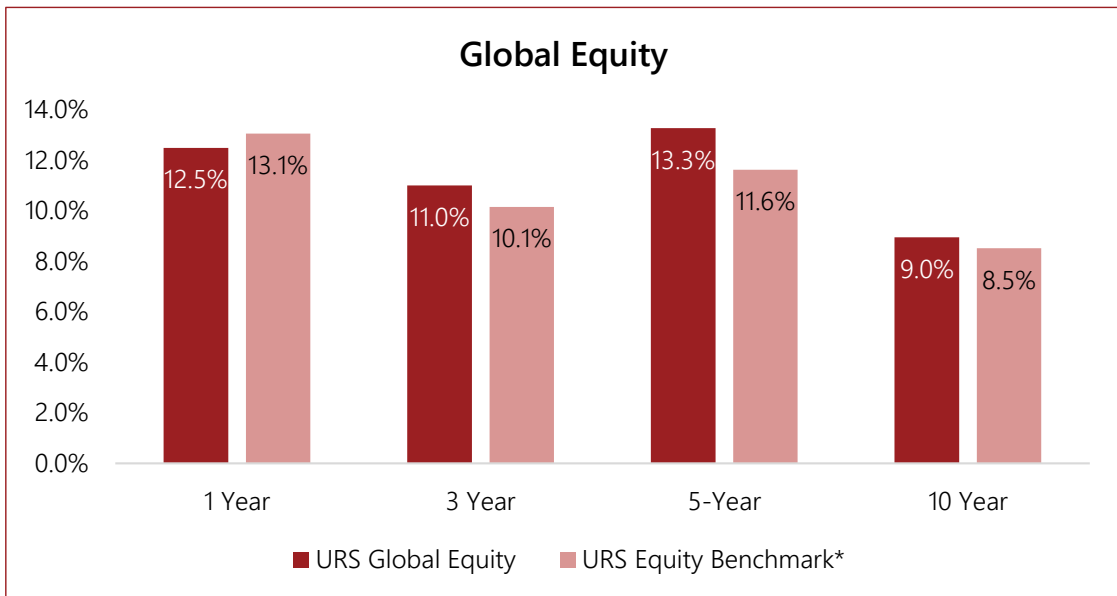




**Investment Results**  
(Time-weighted return, net of fees)

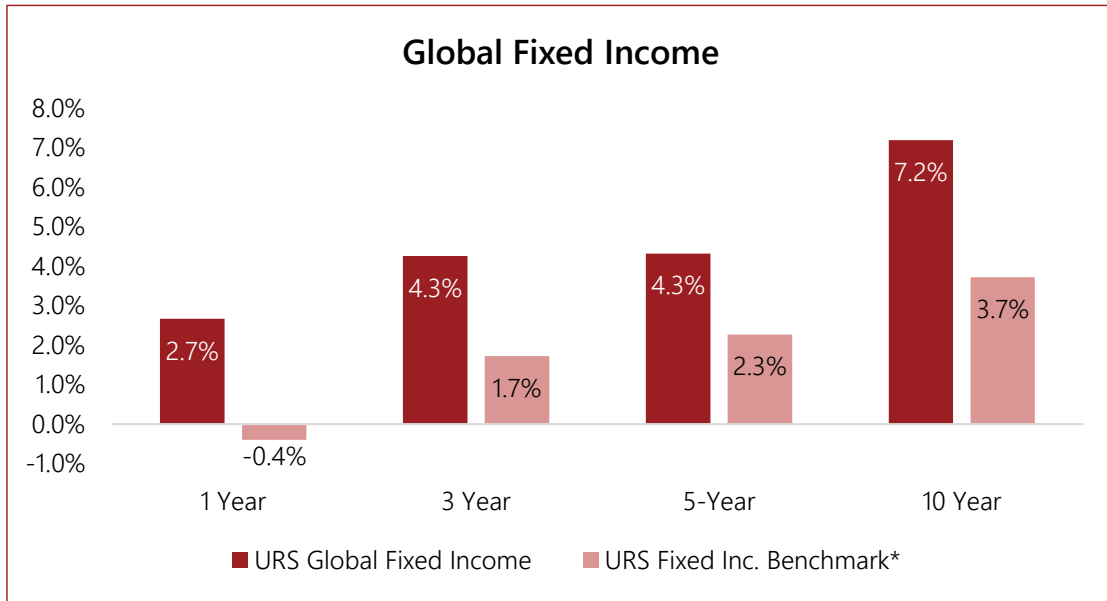


\*Blended Benchmark. Current Benchmark: 6% MSCI Emerging Markets Net, 4% JP Morgan Emerging Mkt Bond Index GD, 3% FTSE EPRA/ NAREIT Developed Index, 5% NCREIF Open End Diversified Core, 3% Citigroup World Govt, 6% Credit Suisse High Yield, 11% Barclays US Aggregate, 3% Russell 2000, 10% MSCI EAFE Net Dividend, 12% S&P500, 2% Barclays US Treasury US TIPS, 2% Bloomberg Commodity, 5% Cambridge Associates US Private Equity, 12% Risk Parity Benchmark (-100% LIBOR BBA USD 3 Month Index, 75% Barclays Global Treasury 7-10 (hedged), 75% Barclay's World Gov't Inflation Bond Index, 25% Bloomberg Commodity Index Total Return Benchmark: 10% Russell 2000, 38% S&P 500, 32% MSCI EAFE, 20% MSCI Emerging Markets Free Gross.

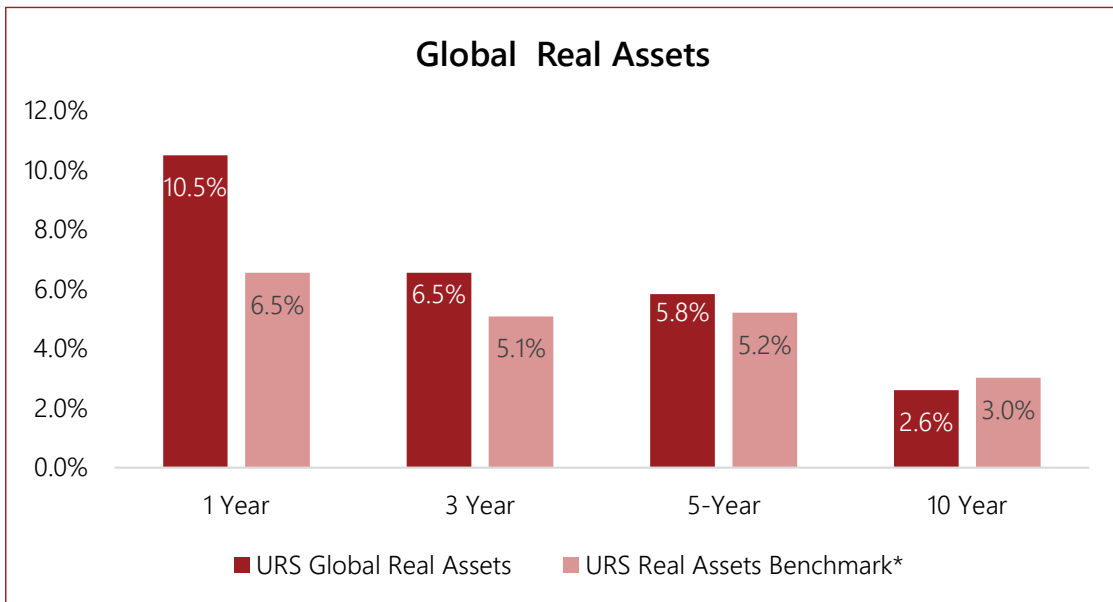


\*Blended Benchmark. Current Benchmark: 10% Russell 2000, 38% S&P 500, MSCI EAFE 32%, 20% MSCI Emerging Markets, XX% MSCI EAFE

**Investment Results**  
(Time-weighted return, net of fees)

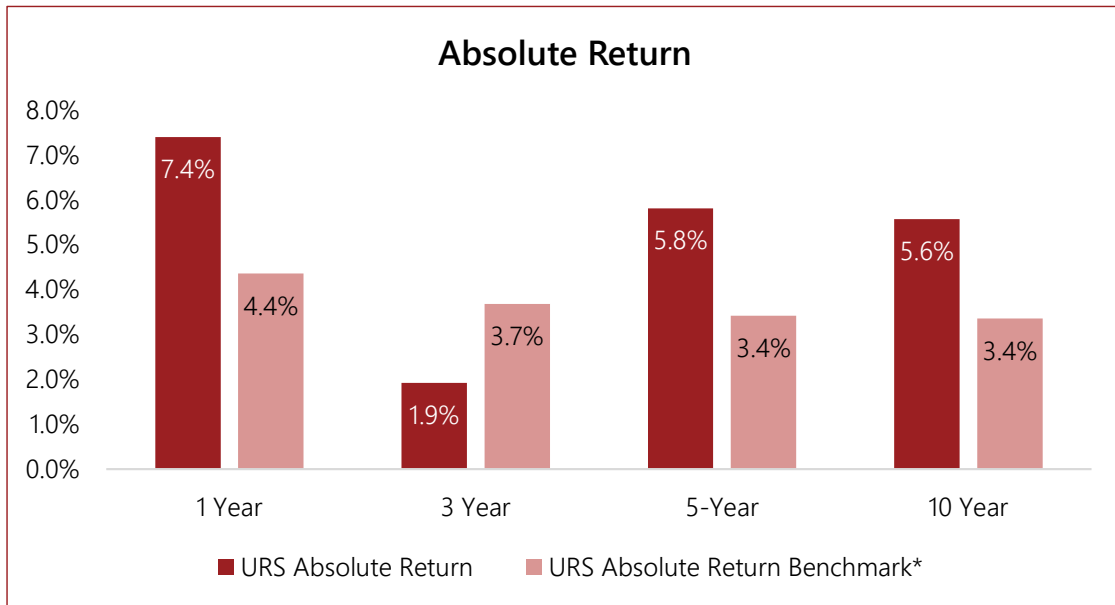


\*Blended Benchmark: 40% Barclays U.S. Aggregate Bond Index, 22% CSFB High Yield Index, 11% Citigroup WGBI Index, 15% JPM EMBI Global Diversified, 6% S&P/LSTA Leveraged Loan Index, and 6% S&P European Leveraged Loan Index

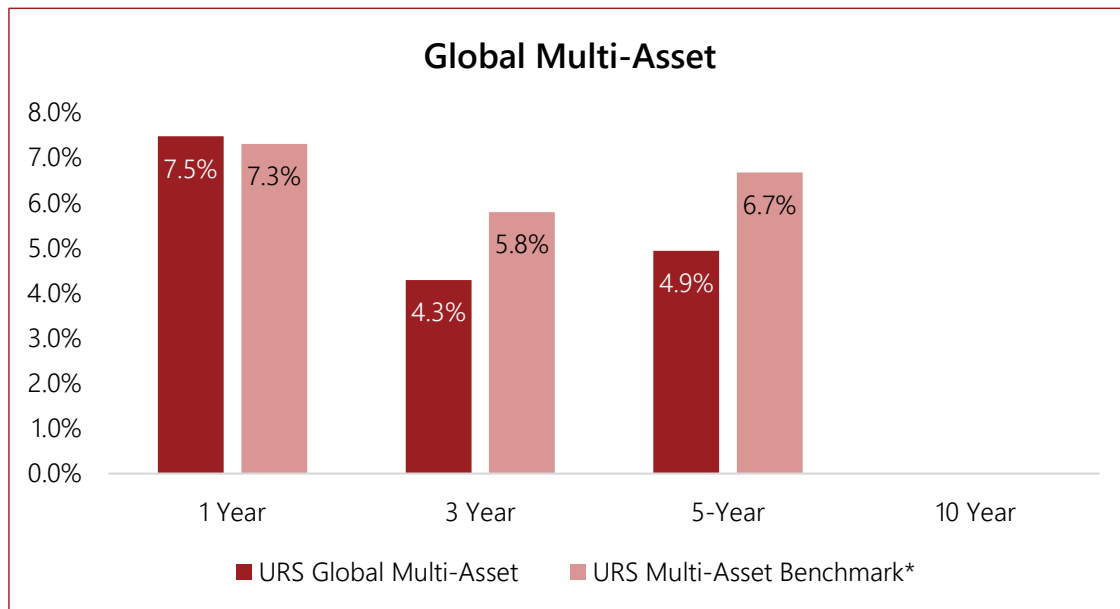


\*Benchmark: 32.5% FTSE EPRA NAREIT Developed Gross Index, 32.5% NCREIF ODCE Index, 17.5% DJ UBS Commodity Index, 17.5% Barclay's U.S. – TIPS index

**Investment Results**  
(Time-weighted return, net of fees)



Benchmark : LIBOR 3 Month Return + 300 Basis Points



Blended Benchmark: 25% MSCI ACWI (LC Gross), 75% Barclays Treasury 7-10 (hedged), 25% Bloomberg UBS Commodity Index (TR), 75% Barclay's World Gov't Inflation Linked Bond Index (LC), -100% LIBOR 3 Month Return

### Schedule of Ten Largest Equity & Fixed Income Holdings

Ten Largest Equity Holdings*				
No. Shares	Description	Cost	Fair Value	% of Total Portfolio
35,796	Intertek Group Plc	\$695,505	\$2,701,363	0.15%
30,583	Rightmove Plc	672,075	2,144,030	0.12%
21,446	Coloplast A/s	507,673	2,143,424	0.12%
19,002	Fresenius Medical Care Ag & Co	748,117	1,916,408	0.11%
39,407	Deutsche Wohnen Se	1,309,040	1,904,799	0.11%
88,763	Compass Group Plc	824,361	1,896,710	0.11%
87,874	Assa Abloy Ab	753,673	1,875,156	0.11%
242,633	BP Plc	1,862,542	1,852,504	0.11%
7,887	Roche Holding Ag	1,563,606	1,751,828	0.10%
35,594	Sampo Oyj	667,590	1,737,115	0.10%
<b>Total</b>		<b><u>\$9,604,182</u></b>	<b><u>\$19,923,337</u></b>	<b><u>1.14%</u></b>

\*Full disclosure of holdings is available upon request.

Ten Largest Fixed Income Holdings*				
Par Value (in local values)	Description	Cost (in U.S. Dollars)	Fair Value (in U.S. Dollars)	% of Total Portfolio
5,620,000	U.S. Treasury Bond, 2.875%, 08/15/2045	\$5,396,630	\$5,507,825	0.31%
5,160,000	U.S. Treasury Note, 1.000%, 09/15/2018	5,149,096	5,150,093	0.29%
5,415,895	Fnma Gtd Remic P/t 15-79 Za, 3.000%, 11/25/2045	5,168,891	4,859,032	0.28%
4,945,000	U.S. Treasury Note, 2.375%, 05/15/2027	4,712,238	4,762,084	0.27%
4,840,000	U.S. Treasury Note, 2.000%, 11/30/2022	4,724,958	4,697,462	0.27%
3,775,000	U.S. Treasury Note, Var Rt, 07/31/2019	3,776,176	3,778,549	0.21%
3,760,000	U.S. Treasury Note, 1.625%, 02/15/2026	3,435,748	3,449,499	0.20%
3,360,000	U.S. Treasury Note, 2.000%, 10/31/2022	3,297,619	3,262,493	0.19%
2,915,000	U.S. Treasury Note, Var Rt, 04/30/2020	2,915,246	2,914,475	0.17%
2,150,000	U.S. Treasury Bond, 6.250%, 05/15/2030	2,842,726	2,877,216	0.16%
<b>Total</b>		<b><u>\$41,419,328</u></b>	<b><u>\$41,258,728</u></b>	<b><u>2.35%</u></b>

\*Full disclosure of holdings is available upon request.

## Schedule of Brokerage Commissions

For Year Ended June 30, 2018

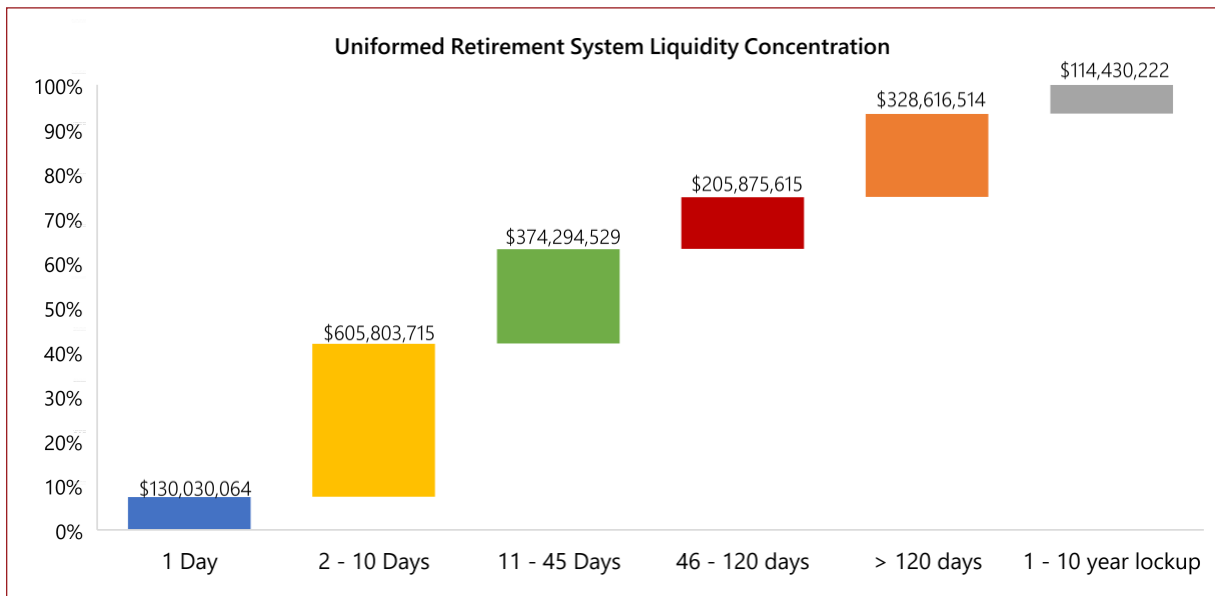
Broker Name	Base Volume	Total Shares	Base Commission	Commission Percentage
J.P. Morgan Securities, Hong Kong	\$717,101	263,482	\$1,153	0.16%
Credit Suisse, New York	1,882,987	242,259	2,891	0.15%
Citigroup Gbl Mkts/Salomon, New York	1,391,480	71,458	1,800	0.13%
Credit Suisse (Europe), London	2,013,135	176,434	2,469	0.12%
Mizuho International Plc, London	662,464	46,000	762	0.11%
Stifel Nicolaus	766,407	27,374	879	0.11%
Daiwa Sec Smbc Europe Ltd, London	1,188,400	59,900	1,348	0.11%
Morgan Stanley & Co, London	1,063,343	97,800	1,179	0.11%
Macquarie Bank Ltd, Hong Kong	1,700,694	268,568	1,884	0.11%
Credit Lyonnais Secs, Hong Kong	664,490	232,882	733	0.11%
J P Morgan Secs Ltd, London	2,538,392	173,476	2,736	0.11%
Jefferies & Co Inc, London	716,793	61,014	772	0.11%
Smbc Nikko Capital Markets Ltd, London	1,457,932	79,000	1,558	0.11%
Citigroup Gbl Mkts Inc, Taipei	766,443	256,769	815	0.11%
Goldman Sachs & Co, Ny	45,564,685	209,848	48,398	0.11%
Citigroup Gbl Mkts Inc, New York	2,492,864	83,291	2,589	0.10%
Morgan Stanley & Co Inc, Ny	3,648,679	175,482	3,710	0.10%
UBS Warburg Asia Ltd, Hong Kong	1,921,164	449,393	1,912	0.10%
Royal Bank of Canada Europe Ltd, London	604,746	44,506	543	0.09%
Sanford C Bernstein & Co Inc, London	2,162,609	146,707	1,923	0.09%
Societe Generale London Branch, London	4,442,535	312,839	3,857	0.09%
Mitsubishi Ufj Secs Intl Plc, London	885,872	43,000	725	0.08%
Deutsche Bk Secs Inc, Ny	1,859,630	85,971	1,503	0.08%
Merrill Lynch Intl London Equities	7,456,437	818,366	5,939	0.08%
Ubs Securities Llc, Stamford	1,204,412	39,612	920	0.08%
RBC Dominion Secs Inc, Toronto	780,963	24,353	593	0.08%
Hsbc Bank Plc (Midland Bk), London	1,574,960	347,661	1,131	0.07%
ABG Sec As, Filial, Stockholm	945,859	48,282	662	0.07%
Mizuho Securities USA Inc. New York	1,258,321	46,596	881	0.07%
Cantor Fitzgerald Europe, London	875,990	66,154	612	0.07%
SMBC Securities, Inc New York	1,291,046	47,973	898	0.07%
Mitsubishi Ufj Securities, New York	669,237	25,499	464	0.07%
J.P. Morgan Clearing Corp, New York	5,156,459	310,103	3,351	0.06%
Ubs Warburg, London	4,083,594	363,463	2,609	0.06%
Deutsche Bk Intl Eq, London	2,939,524	995,952	1,816	0.06%
Merrill Lynch Pierce Fenner Smith Inc Ny	4,824,166	149,677	2,648	0.05%
Rbc Capital Markets Llc, New York	2,786,745	88,781	1,440	0.05%
Jefferies & Co Inc, New York	3,259,273	104,353	1,671	0.05%
KEB Salomon Smith Barney Secs, Seoul	1,068,654	11,463	516	0.05%
National Finl Svcs Corp, New York	2,765,399	71,359	1,335	0.05%
Merrill Lynch Gilts Ltd, London	4,155,942	217,179	1,719	0.04%
Instinet Europe Limited, London	5,283,858	223,191	2,153	0.04%
Barclays Capital Inc./Le, New Jersey	1,545,523	26,329	598	0.04%
Bernstein Sanford C & Co, New York	6,582,087	169,654	2,382	0.04%
Macquarie Capital Inc., New York	932,040	20,673	310	0.03%
ICNC Fincl Svcs, New York	628,532	12,201	193	0.03%
Ubs Equities, London	12,198,868	1,228,479	3,551	0.03%
Investment Tech Group Inc, New York	594,776	19,310	157	0.03%
Liquidnet Inc, New York	1,091,529	30,280	278	0.03%
Citigroup Global Markets Ltd, London	20,009,734	2,181,862	5,089	0.03%
Other Brokers	13,415,659	1,448,094	13,990	0.10%
<b>Total</b>	<b>\$190,492,432</b>	<b>12,744,352</b>	<b>\$144,045</b>	<b>0.08%</b>

Schedule of Management Fees by Asset Class		
For Year Ended June 30, 2018		
Asset Class	Fair Value	Management Fees
Absolute Return	\$298,957,296	\$4,600,442
Global Equity	463,881,706	4,064,486
Global Fixed Income	436,083,788	3,660,631
Global Multi-Asset	223,240,286	849,939
Global Real Assets	206,857,519	1,677,219
Short Term	130,030,064	287,560
<b>Total</b>	<b><u>\$1,759,050,659</u></b>	<b><u>\$15,140,277</u></b>

Investment Summary				
(Based on Capital Allocation)				
	As of June 30, 2017		As of June 30, 2018	
	Fair Value	% Fair Value	Fair Value	% Fair Value
Abosolute Return	\$274,320,404	16.7%	\$298,957,296	17.0%
Global Equity	417,148,634	25.4%	463,881,706	26.3%
Global Fixed Income	427,614,261	26.0%	436,083,788	24.8%
Global Multi-Asset	207,714,023	12.6%	223,240,286	12.7%
Global Real Assets	207,294,198	12.6%	206,857,519	11.8%
Short Term	110,389,867	6.7%	130,030,064	7.4%
<b>Totals:</b>	<b><u>\$1,644,481,387</u></b>	<b><u>100.0%</u></b>	<b><u>\$1,759,050,659</u></b>	<b><u>100.0%</u></b>

**Liquidity Snap Shot on June 30, 2018**

The below liquidity chart for the Uniformed Retirement System demonstrates how the pension fund’s capital has been allocated to ensure sufficient liquidity to support short term uses of cash, such as retirement distributions, capital calls, potential daily margin calls and coverage ratio requirements on derivative notional balances. It details the liquidity concentration of the System’s total capital allocated to investments by their redemption schedule (monthly, quarterly, annually or none), including the number of calendar days’ notice that must be provided before the redemption of funds can be made.



(This Page Intentionally Left Blank)





October 15, 2018

Fairfax County Employees'  
Retirement System  
12015 Lee Jackson Memorial Hwy, Suite 350  
Fairfax, Virginia 22033

Dear Members of the Board:

At your request, we have performed an actuarial valuation of the Fairfax County Uniformed Retirement System as of June 30, 2018. The full results and analysis of that annual valuation will be presented in a full actuarial valuation report. The purpose of this actuarial section is to provide key information from that report and support the disclosure of Total Pension Liability that is presented in the Financial Section of this CAFR. 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) 2018 contribution was developed in the 2016 valuation report and was based on a corridor level of 98%.

***Assumptions***

The actuarial assumptions used in performing the June 30, 2018 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, 2015. The assumptions and methods used for funding purposes were developed in compliance with the actuarial standards of practice as they relate to pension plans. The assumptions reflect our understanding of the likely future experience of the System and the assumptions both individually and 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**

As a part of the 2018 actuarial valuation, Cheiron prepared the Analysis of Financial Experience, Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls and Solvency Test provided in this Actuarial Section.

We are also responsible for the disclosures of Net Pension Liability and its components in the Financial Section. The information provided in Note 4 of the Financial Section comes from the Actuarial Valuation as of June 30, 2018.

**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 Uniformed Retirement 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. The employer-provided accrual rates in the System 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 Uniformed 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 Uniformed 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



Coralie A. Taylor, FSA  
Associate Actuary



### **Summary of Valuation Results**

The Actuarially Determined Contribution rate for Fiscal Year (FY) 2018 was developed in the 2016 valuation report and was based on a corridor floor of 98%. For more information on the Corridor method please see the Funding Method section of this report.

Amounts disclosed in Note 4 of the Financial Section were developed in conjunction with the 2018 valuation.

### **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) 2018 contribution was based on a corridor level of 98%.

#### **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.

#### **Changes since Last Valuation**

None

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

**Demographic Assumptions  
Healthy Mortality**

Annual Deaths Per 10,000 Members		
Mortality Projected to 2018		
Age	Male	Female
20	4	2
25	5	2
30	5	2
35	6	3
40	7	4
45	11	7
50	46	27
55	63	37
60	86	54
65	124	84
70	190	133
75	307	217
80	518	367
85	902	651
90	1,597	1,171
95	2,522	1,936
100	3,580	2,872

Post-retirement mortality shown

110% and 100% of the RP-2014 Healthy Annuitant Mortality Table for males and females, respectively, backed down to 2006 then projected using the RPEC-2015 model, with an ultimate rate of 0.65% for ages 20-85 grading down to an ultimate rate of 0% for ages 115-120 and convergence to the ultimate rate in the year 2015. The valuation uses fully generational projection of mortality improvements. Sample rates shown are those projected through the valuation date.

5% of pre-retirement deaths are assumed to be service-connected.

**Disabled Mortality**

Annual Deaths Per 1,000 Members		
Mortality Projected to 2018		
Age	Male	Female
45	173	105
50	208	135
55	235	169
60	267	204
65	324	249
70	415	335
75	565	490
80	806	740

100% and 115% of the RP-2014 Disabled Annuitant Mortality Table for males and females, respectively, backed down to 2006 then projected using the RPEC-2015 model, with an ultimate rate of 0.65% for ages 20-85 grading down to an ultimate rate of 0% for ages 115-120 and convergence to the ultimate rate in the year 2015. The valuation uses fully generational projection of mortality improvements. Sample rates shown are projected through the valuation date.

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

Annual Terminations	
Service	Male and Female
0	122
5	25
10	8
15	5
20	5
25	0

It is assumed that members who terminate before meeting 5 years of service elect to receive a refund of contributions instead of vested benefits.

**Disability**

Annual Disabilities Per 1,000 Members*	
Age	Male and Female
20	1
25	1
30	1
35	1
40	2
45	3
50	5
55	8
60	8

\*Disabilities are assumed to all be service-connected. Of these, 30% are assumed to receive Social Security benefits and 38% are assumed to receive Workers' Compensation benefits.

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

Year of Service	Merit/Seniority Increase*
0	6.50%
5	3.00%
10	1.55%
15	3.00%
20	3.00%
25+	1.00%

**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 employees are married at death while active and that the female spouse is three years younger than the male spouse is.

**Retirement/DROP**

Year of Service	Retirement/DROP*
24-May	20%
25	30
26	30
27	27
28	25
29	28
30	25
31	30
32	35
33	35
34	35
35+	100

\* 75% of those who leave under this decrement are assumed to DROP, with the other 25% taking immediate retirement.

**Sick Leave Credit**

The unused sick leave balance as reported for each active member is used as of the valuation date. Future sick leave accruals for those hired before 2012 are assumed to accrue at 100% of each participant's annual average, but capped at 124 hours per year.

**Economic Assumptions**

Investment Return:	7.25% compounded per annum.
Rate of General Wage Increase:	2.75% compounded per annum.*
Rate of Increase in Cost-of-Living:	2.50% compounded per annum.**
Total Payroll Increase (For Amortization):	2.75% compounded per annum.
Administrative Expenses:	0.25% of payroll.

\* General Wage Increase assumption applies for projecting contributions and developing Social Security benefits.

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

**Changes since Last Valuation**

None

**Analysis of Financial Experience**  
**Gain and Loss in Accrued Liability during Years Ended June 30<sup>1</sup>**  
**Resulting from Differences between Assumed Experience and Actual Experience**

Type of Activity	Investment Income	Combined Liability Experience	Gain (or Loss) During Year from Financial Experience	Non-Recurring Items	Composite Gain (or Loss) During Year
2012	(\$19,330,917)	(\$1,456,752)	(\$20,787,669)	\$ -	(\$20,787,669)
2013	(3,805,385)	24,088,845	20,283,460	(813,016)	19,470,444
2014	34,542,175	(9,026,264)	25,515,911	(20,177,168)	5,338,743
2015	(12,354,967)	38,954,945	26,599,978	-	26,599,978
2016	(51,308,849)	15,038,096	(36,270,753)	(21,285,640)	(57,556,393)
2017	(19,058,604)	(6,047,672)	(25,106,276)	(839,465)	(25,945,741)
2018	(9,182,282)	1,127,589	(8,054,693)	(956,369)	(9,011,062)

<sup>1</sup>Schedule comes from the Actuarial Valuation as of June 30, 2018.

**Schedule of Retirees and Beneficiaries**  
**Added To and Removed From Rolls<sup>2</sup>**

Year Ended June 30	Added to Rolls		Removed From Rolls		On Rolls @ Yr. End		% Increase Allowance	Average Allowance
	No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		
2009	65	\$4,323,678	10	\$469,400	987	\$49,434,975	8.46%	\$50,086
2010	51	4,614,464	17	549,813	1,021	53,499,626	8.22%	52,399
2011	66	5,869,824	12	546,541	1,075	58,822,909	9.95%	54,719
2012	45	4,704,657	11	481,168	1,109	63,046,398	7.18%	56,850
2013	57	5,446,162	11	610,907	1,155	67,881,653	7.67%	58,772
2014	64	5,865,807	25	1,033,836	1,194	72,713,625	7.12%	60,899
2015	61	4,908,201	12	618,655	1,243	77,003,170	5.90%	61,949
2016	25	1,745,424	12	467,322	1,256	78,281,273	1.66%	62,326
2017	72	6,284,796	19	850,639	1,309	83,715,430	6.94%	63,954
2018	61	5,510,547	16	903,747	1,354	88,322,230	5.50%	65,231

<sup>2</sup> Prior to 2016, amounts are based on June 30 benefits adjusted for known COLA effective July 1. Post-2015, amounts reported are based on benefits on December 31 prior to the valuation date.

Solvency Test<sup>1</sup>

Aggregate Accrued Liabilities For							
Valuation Date June 30	(1) Active Member Contributions	(2) Retirees, Vested Terms, Beneficiaries & DROP	(3) Active Members (County Financed Portion)	Reported Assets	(1)	(2)	(3)
					Portion of Accrued Liabilities by Reported Assets		
2009	\$108,449,048	\$745,549,680	\$497,205,327	\$1,074,229,685	100%	100%	44%
2010	113,757,792	813,049,990	500,808,928	1,095,079,616	100%	100%	34%
2011	120,040,592	896,003,321	510,174,331	1,185,593,678	100%	100%	33%
2012	120,373,016	981,922,550	511,358,566	1,247,526,438	100%	100%	28%
2013	130,979,546	1,042,085,650	503,200,502	1,326,424,772	100%	100%	30%
2014	137,482,080	1,094,584,634	561,785,579	1,466,110,756	100%	100%	42%
2015	145,293,199	1,126,142,315	573,284,029	1,550,327,414	100%	100%	49%
2016	155,579,540	978,657,862	806,219,828	1,601,320,543	100%	100%	58%
2017	154,777,842	1,046,091,139	832,820,471	1,683,381,052	100%	100%	58%
2018	168,602,734	1,097,926,481	859,320,715	1,778,267,298	100%	100%	60%

<sup>1</sup>Schedule uses actuarial value of assets. Results would be different if market value of assets were used. Despite the name of this exhibit, the liabilities presented in this schedule are not an appropriate measurement of the settlement value of the System.

## Schedule of Active Member Valuation Data

Valuation Date June 30	Number of Active Members <sup>2</sup>	Covered Payroll	Average Annual Salary	Percentage Increase in Average Pay
2009	1,945	\$147,082,768	\$75,621	
2010	1,887	146,776,955	77,783	2.86%
2011	1,865	147,326,067	78,995	1.56%
2012	1,870	148,235,740	79,270	0.35%
2013	1,862	146,597,688	78,731	-0.68%
2014	1,817	153,456,176	84,456	7.27%
2015	1,889	159,216,907	84,286	-0.20%
2016	1,948	167,965,582	86,225	2.30%
2017	1,975	174,888,440	88,551	2.70%
2018	1,974	180,446,949	91,412	3.23%

<sup>2</sup> Excludes DROP participants.

Schedule of Funding Progress

Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liabilities (b)	Unfunded Actuarial Accrued Liabilities (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
2009	\$1,074,229,685	\$1,351,204,055	\$276,974,370	80%	\$147,082,765	188%
2010	1,095,079,616	1,427,616,710	332,537,094	77%	146,776,955	227%
2011	1,185,593,678	1,526,218,244	340,624,566	78%	147,326,067	231%
2012	1,247,526,438	1,613,654,132	366,127,694	77%	148,235,740	247%
2013	1,326,424,772	1,676,265,698	349,840,926	79%	146,597,688	239%
2014	1,466,110,756	1,793,852,293	327,741,537	82%	153,456,176	214%
2015	1,550,327,414	1,844,719,543	294,392,129	84%	159,216,906	185%
2016	1,601,320,543	1,940,457,230	339,136,687	83%	167,965,582	202%
2017	1,683,381,052	2,033,689,452	350,308,400	83%	174,888,440	200%
2018	1,778,267,298	2,125,849,930	347,582,632	84%	180,446,949	193%



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>
2009	\$11,750,810	\$40,855,102	26.46%	(\$211,603,541)	(\$158,997,629)
2010	11,094,505	40,771,184	26.46%	131,320,268	183,185,957
2011	10,521,525	45,817,015	30.56%	238,039,247	294,377,787
2012	10,603,097	50,351,335	33.81%	(4,168,239)	56,786,193
2013	10,937,857	53,722,160	35.00%	120,417,604	185,077,621
2014	10,905,744	56,094,690	36.43%	210,256,032	277,256,466
2015	11,473,273	60,928,766	37.90%	21,800,261	94,202,300
2016	12,020,447	65,548,338	38.83%	(13,447,090)	64,121,695
2017	12,223,468	67,410,252	38.84%	161,013,714	240,647,434
2018	12,262,288	67,895,377	38.84%	131,997,257	212,154,922

**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>
2009	\$54,122,953	\$656,683	\$325,469	\$55,105,105
2010	58,356,915	597,955	345,766	59,300,636
2011	63,822,794	853,906	361,654	65,038,354
2012	67,361,605	599,188	372,770	68,333,563
2013	73,914,711	779,395	434,117	75,128,223
2014	78,358,943	557,938	433,541	79,350,422
2015	84,440,939	408,486	455,440	85,304,865
2016	89,730,185	805,890	500,255	91,036,330
2017	92,844,624	764,247	477,564	94,086,435
2018	96,018,500	877,705	619,827	97,516,032

Schedule of Benefit Payments by Type

Fiscal Year	Service Annuity	Service-Connected Disability	Ordinary Disability	Survivor Benefit	Total
2009	\$45,854,076	\$7,323,730	\$343,405	\$601,742	\$54,122,953
2010	50,139,482	7,275,973	300,836	640,624	58,356,915
2011	55,344,665	7,513,492	317,253	647,384	63,822,794
2012	58,531,116	7,751,042	339,101	740,346	67,361,605
2013	64,917,112	7,771,437	341,271	884,891	73,914,711
2014	69,212,758	7,808,253	356,140	981,792	78,358,943
2015	75,228,455	7,771,270	330,343	1,110,871	84,440,939
2016	80,717,696	7,515,341	332,402	1,164,746	89,730,185
2017	83,777,110	7,556,874	328,116	1,182,524	92,844,624
2018	86,794,111	7,612,571	342,450	1,269,368	96,018,500

Schedule of Retired Members by Benefit Type

Fiscal Year	Service Annuity	Service-Connected Disability	Disability	Survivor Benefit	Total
2009	758	187	18	24	987
2010	798	185	16	22	1,021
2011	845	186	18	26	1,075
2012	878	187	18	26	1,109
2013	925	185	17	29	1,156
2014	967	176	17	34	1,194
2015	1,021	171	17	34	1,243
2016	1,038	168	18	32	1,256
2017	1,097	163	17	32	1,309
2018	1,142	162	17	33	1,354

Schedule of Average Monthly Benefit Amounts

Fiscal Year	Service Annuity	Service-Connected Disability	Ordinary Disability	Survivor Benefit	Average
2009	\$4,532	\$3,233	\$1,596	\$2,123	\$4,174
2010	4,726	3,339	1,505	2,045	4,367
2011	4,945	3,439	1,570	2,122	4,560
2012	5,127	3,571	1,614	2,122	4,737
2013	5,285	3,607	1,624	2,422	4,891
2014	5,457	3,809	1,609	2,492	5,075
2015	5,533	3,826	1,614	2,530	5,162
2016	5,563	3,800	1,576	2,576	5,194
2017	5,674	3,933	1,608	2,604	5,329
2018	5,764	4,046	1,629	2,852	5,436

**Schedule of Average Benefit Payments**

Years of Credited Service \*

Period	2-4	5-9	10-14	15-19	20-24	25-29	30+
<b>Period 7/1/2007 to 6/30/2008</b>							
Average Monthly Benefit **	\$ -	\$745	\$1,409	\$2,941	\$3,423	\$5,110	\$5,646
Average of Final Monthly Salaries	\$ -	\$4,483	\$6,026	\$6,190	\$7,129	\$7,770	\$6,990
Number of Retirees	-	3	1	2	12	24	1
<b>Period 7/1/2008 to 6/30/2009</b>							
Average Monthly Benefit **	4,041	1,342	1,710	2,435	3,679	5,499	6,363
Average of Final Monthly Salaries	3,661	5,159	5,429	6,861	7,134	8,117	8,328
Number of Retirees	1	4	4	1	10	28	6
<b>Period 7/1/2009 to 6/30/2010</b>							
Average Monthly Benefit **	-	818	-	2,230	3,924	5,326	8,098
Average of Final Monthly Salaries	-	4,293	-	5,798	8,113	8,047	9,781
Number of Retirees	-	1	-	3	7	31	8
<b>Period 7/1/2010 to 6/30/2011</b>							
Average Monthly Benefit **	477	1,980	1,944	2,527	4,331	5,381	6,873
Average of Final Monthly Salaries	4,144	4,950	6,538	6,318	7,929	8,239	8,612
Number of Retirees	1	1	3	1	10	38	7
<b>Period 7/1/2011 to 6/30/2012</b>							
Average Monthly Benefit **	-	760	2,455	-	3,732	5,262	7,355
Average of Final Monthly Salaries	-	4,321	6,137	-	7,510	8,205	9,284
Number of Retirees	-	2	1	-	3	30	6
<b>Period 7/1/2012 to 6/30/2013</b>							
Average Monthly Benefit **	458	-	2,188	3,155	4,343	5,871	7,410
Average of Final Monthly Salaries	5,345	-	5,470	7,119	7,631	9,044	9,875
Number of Retirees	1	-	1	1	4	37	7
<b>Period 7/1/2013 to 6/30/2014</b>							
Average Monthly Benefit **	-	940	2,094	4,189	4,895	5,419	7,983
Average of Final Monthly Salaries	-	4,640	6,514	8,674	7,872	8,363	10,169
Number of Retirees	-	2	2	1	6	33	9
<b>Period 7/1/2014 to 6/30/2015</b>							
Average Monthly Benefit **	-	2,038	1,693	3,024	4,200	5,530	8,312
Average of Final Monthly Salaries	-	5,501	6,658	7,374	7,706	8,888	10,985
Number of Retirees	-	1	1	3	6	30	9
<b>Period 7/1/2015 to 12/31/2015</b>							
Average Monthly Benefit **	-	925	-	2,853	2,923	5,501	8,072
Average of Final Monthly Salaries	-	5,975	-	7,817	7,595	8,519	9,596
Number of Retirees	-	1	-	1	1	16	6
<b>Period 1/1/2016 to 12/31/2016</b>							
Average Monthly Benefit **	-	671	1,282	2,373	3,587	5,686	7,115
Average of Final Monthly Salaries	-	4,410	4,678	6,706	7,923	8,900	9,681
Number of Retirees	-	1	2	5	8	47	7
<b>Period 7/1/2017 to 12/31/2017</b>							
Average Monthly Benefit **	-	-	1,722	3,220	3,901	5,675	7,032
Average of Final Monthly Salaries	-	-	6,064	7,404	8,040	8,929	9,365
Number of Retirees	-	-	2	2	11	32	11

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

\*\*Does not include supplements.

Active Participants Counts by Age/Service

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	30	51	1	0	0	0	0	0	82
25 to 29	33	157	52	3	0	0	0	0	245
30 to 34	21	103	109	95	1	0	0	0	329
35 to 39	10	47	68	170	56	1	0	0	352
40 to 44	2	17	32	112	120	33	5	0	321
45 to 49	3	3	16	63	97	135	37	3	357
50 to 54	1	5	6	38	33	72	29	16	200
55 to 59	0	4	5	11	11	23	5	12	71
60 to 64	0	2	1	2	1	4	0	2	12
65 & up	0	0	0	2	1	1	0	1	5
Total	100	389	290	496	320	269	76	34	1,974

Active Participants Total Salary by Age/Service

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$1,633,243	\$3,116,880	\$70,080	\$ -	\$ -	\$ -	\$ -	\$ -	\$4,820,203
25 to 29	1,814,205	9,953,229	3,857,993	207,010	-	-	-	-	15,832,437
30 to 34	1,103,866	6,672,910	8,061,944	7,990,464	85,958	-	-	-	23,915,142
35 to 39	554,865	3,039,789	5,159,365	14,579,347	5,592,140	97,343	-	-	29,022,849
40 to 44	61,118	1,082,272	2,240,476	9,747,797	12,314,464	3,802,048	780,021	-	30,028,196
45 to 49	197,763	183,080	1,159,395	5,495,065	9,909,222	15,476,625	4,665,431	309,527	37,396,108
50 to 54	54,670	290,169	461,249	3,220,046	3,184,063	8,115,532	3,481,628	2,045,456	20,852,813
55 to 59	-	259,204	351,137	885,425	1,066,309	2,459,350	663,795	1,436,099	7,121,319
60 to 64	-	264,309	68,891	176,646	88,258	390,751	-	256,501	1,245,356
65 & up	-	-	-	164,180	74,174	104,641	-	132,116	475,111
Total	\$5,419,730	\$24,861,842	\$21,430,530	\$42,465,980	\$32,314,588	\$30,446,290	\$9,590,875	\$4,179,699	\$170,709,534

### Retirees By Location

Retirees by State	
State	% of Total
VA	71.52%
FL	6.77%
MD	6.58%
NC	4.70%
SC	3.48%
WV	2.63%
PA	1.88%
GA	1.03%
TN	0.75%
DE	0.66%

Retirees Living in Fairfax County	
County	% of Total
Fairfax County	15.00%

Retirees by Fairfax County City	
City	% of Total
Centreville	2.41%
Alexandria	2.14%
Springfield	1.70%
Herndon	1.52%
Fairfax	1.16%
Chantilly	0.80%
Falls Church	0.80%
Lorton	0.71%
Annandale	0.54%
Burke	0.54%
Clifton	0.45%
Fairfax Station	0.45%
Franconia	0.45%
Vienna	0.45%
Oakton	0.27%
Reston	0.27%
Great Falls	0.18%
McLean	0.18%

# UNIFORMED RETIREMENT SYSTEM

Fairfax County Retirement Systems  
12015 Lee Jackson Memorial Highway, Suite 350  
Fairfax, VA 22033  
703.279.8200  
[www.fairfaxcounty.gov/retirement](http://www.fairfaxcounty.gov/retirement)

