



COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2019



A Pension Trust Fund of Fairfax County, Virginia

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FOR THE FISCAL YEAR ENDED JUNE 30, 2019

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.

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County of Fairfax, Virginia

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

November 14, 2019

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, 2019. 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 1,939 active members, 137 in the Deferred Retirement Option Program (DROP), 89 terminated vesteds and 1,402 retirees participating in the System as of June 30, 2019. For calculations surrounding the Total Pension Liability and its components, Cheiron, the System's actuary, used June 30, 2019, 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 2019, the System's investment returns reflected the continuing and long equity bull market. The System's portfolio investment return for the year was 5.17 percent (4.50 percent, net of fees), below the long term return target of 7.25 percent. This return placed in the 91st 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 9.16 percent per year, ranking the fund in the 67th 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/

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, 2019, the ratio of the market value of assets to total pension liabilities for benefits decreased from 82.79 percent to 82.09 percent. The actuarial section contains further information on the results of the June 30, 2019, valuation.

Based on the June 30, 2017, actuarial valuation, the employer contribution rate for 2019 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 98percent to 99 percent.

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 four 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.

After a multi-year and collaborative study, The Board of Supervisors (BOS) enacted changes to retirement benefits for anyone hired on or after July 1, 2019. From then on, new members will be automatically enrolled in the new Plan F, which staff spent the first half of 2019, preparing systems, documents, and training materials to support.

This year, Staff began the implementation of an investment back office data system. This system will serve as a data retrieval repository for analysis, documentation and reporting.

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, 2018. This was the ninth 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, 2019, 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.

Acknowledgments

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/.

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 3,567 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, 2018

Christopher P. Morill

Executive Director/CEO



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2019***

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". The signature is written in a cursive style.

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, 2021



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

Aspect Capital Ltd
London, UK

BlueBay Asset Management
London, UK

Brandywine Global Investment Management, LLC
Philadelphia, PA

Bridgewater Associates, LP
Westport, CT

Cohen & Steers Capital Management, Inc
New York, NY

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

HG Vora Capital Management
New York, NY

JP Morgan Investment Management, Inc
New York, NY

Kaboutar International
Chicago, IL

King Street Capital Management, LP
New York, NY

Investment Managers

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	Monroe Capital, LLC Chicago, IL
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	Thoma Bravo, LLC Chicago, IL
UBS Realty Investors, LLC Hartford, CT	Wellington Management Company, LLP Boston, MA

Professional Services

<u>Actuary</u> Cheiron Actuaries McLean, VA	<u>Independent 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 59-60.

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 Herry

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
Anthony Vu



Investment Operations Manager
Jennifer Snyder

Retirement Systems Management Team
*Vicky Panlaqui - Accounting and Financial Reporting
Carol Patterson - Communications
John Prather - Membership Services
Pamela Taylor - Technology
Meir Zupovitz - Retiree Services*



Report of Independent Auditor

To the 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 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, 2019, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express 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, 2019, 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 14, 2019, 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 solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the System's internal control over financial reporting and compliance.



Tysons Corner, Virginia
November 14, 2019

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, 2019. 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, 2019 and Statement of Changes in Fiduciary Net Position for the fiscal year ended June 30, 2019. 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.
- Note 6 Describes subsequent events.

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)

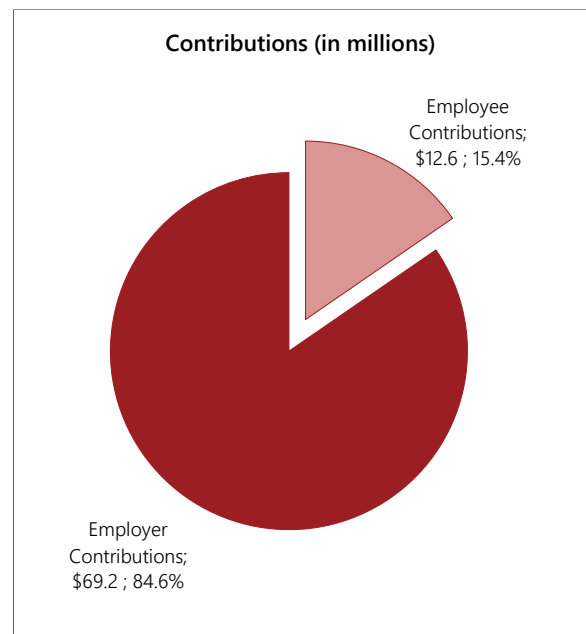
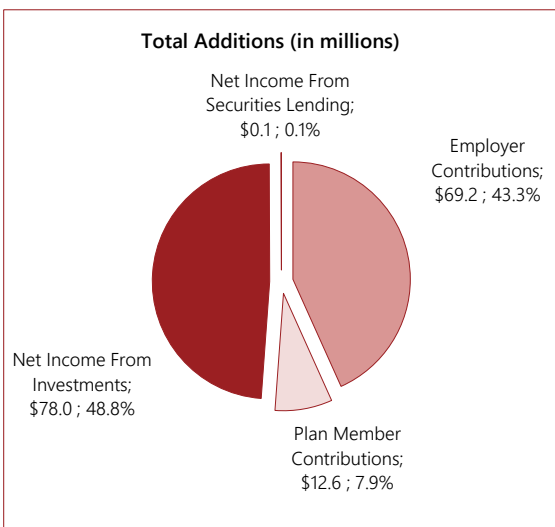
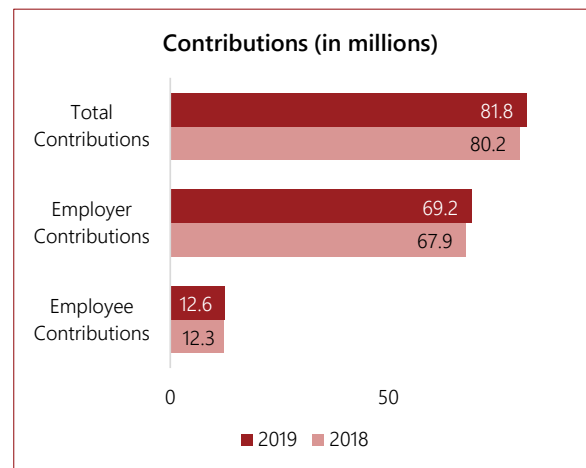
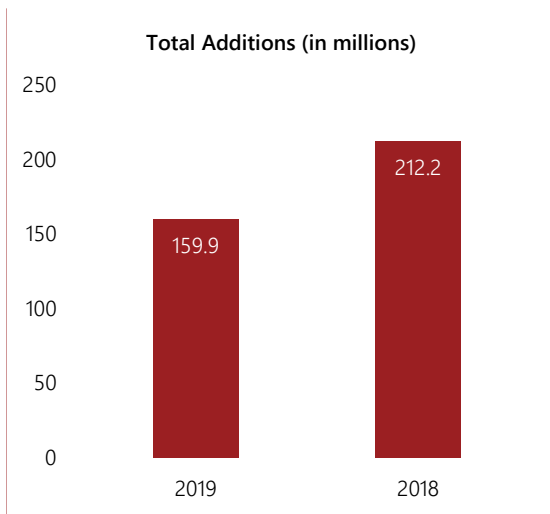
Financial Highlights

The net position restricted for pension benefits as of June 30, 2019, and June 30, 2018, was \$1,813.7 million and \$1,759.9 million, respectively. The net position representing assets available to pay for current and future member pension benefits, increased by \$53.8 million or 3.06 percent.

Total additions to net position decreased by 24.59 percent or \$52.2 million from \$212.2 million in 2018 to \$159.9 million in 2019.

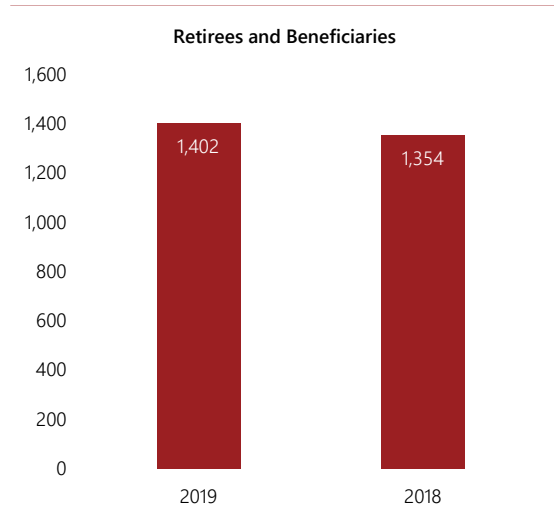
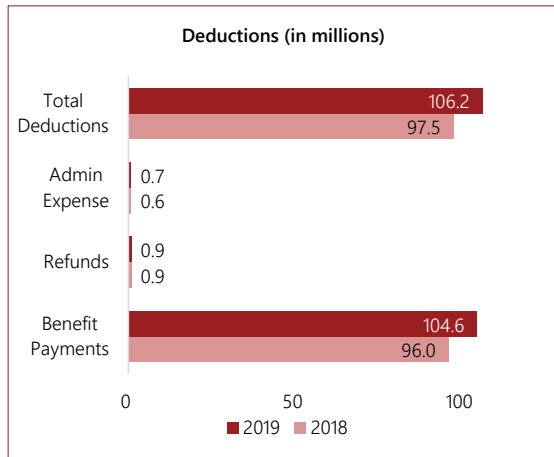
Net income from investments (excluding securities lending) decreased 40.85 percent from \$131.9 million in 2018 to \$78.0 million in 2019. The net money-weighted rate of return on investments on a fair value basis was 4.50 percent in fiscal year 2019, and has decreased from 8.09 percent in fiscal year 2018.

Employer and employee contributions received totaled \$81.8 million, an increase of 2.00 percent or \$1.6 million compared to 2018 received contributions of \$80.2 million. The employer contributions increased by 1.99 percent from \$67.9 million in fiscal year 2018 to \$69.2 million in fiscal year 2019.



Management’s Discussion and Analysis
(continued)

Total deductions from fiduciary net position increased by \$8.6 million from \$97.5 million in 2018 to \$106.2 million in 2019. Member retirement benefit payments of \$104.6 million in 2019 make up the majority of total deduction and increased by \$8.6 million or 8.97 percent from \$96.0 million in 2018. The number of retired members and beneficiaries receiving a benefit payment increased 3.5 percent from 1,354 to 1,402 payees as of June 30, 2019.



The net pension liability as calculated per GASB 67 as of June 30, 2019, and June 30, 2018, was \$395.7 million and \$365.9 million, respectively. The net position as a percentage of total pension liability as of June 30, 2019 and June 30, 2018, was 82.09 percent and 82.79 percent, respectively. The net pension liability as a percentage of covered payroll has increased from 209.34 percent in fiscal year 2018 to 221.95 percent in fiscal year 2019. The covered payroll increased from \$174.8 million in 2018 to \$178.3 million in 2019.

	2019	2018
Net Pension Liability (in millions)	\$395.7	\$365.9
Net Position as Percentage of TPL	82.09%	82.79%
Covered Payroll (in millions)	\$178.3	\$174.8
Net Pension Liability as Percentage of Covered Payroll	221.95%	209.34%

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 2019, the net position of the Uniformed Retirement System increased 3.06 percent, resulting in a total net position value of \$1,813.7 million, reflecting an increase of \$53.8 million over fiscal year 2018.

Total assets as of June 30, 2019, were \$1,864.0 million, representing an increase of \$36.8 million, or 2.01 percent over the previous fiscal year. The main component of the increase was due to the growth of cash and investment from \$1,758.2 million in fiscal year 2018 to \$1,812.7 million in fiscal year 2019.

Receivables decreased by \$13.6 million or 26.56 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.

Net Position for Current and Prior Fiscal Year			
Fiscal Year	Ending Balances (millions)	Net Change in Dollars (millions)	Net Change in Percent
2019	\$1,813.7	\$53.8	3.06%
2018	\$1,759.9	\$114.6	6.97%

Summary of Plan Fiduciary Net Position				
Assets	2019	2018	Difference	Percentage of Change
Total Cash and Investments	\$1,812,688,852	\$1,758,219,440	\$54,469,412	3.10%
Cash Collateral, Securities Lending	13,851,978	18,008,041	(4,156,063)	-23.08%
Capital Assets, net	10,513	11,439	(926)	-8.10%
Total Receivables	<u>37,479,597</u>	<u>51,036,192</u>	<u>(13,556,595)</u>	-26.56%
Total Assets	<u>1,864,030,940</u>	<u>1,827,275,112</u>	<u>36,755,828</u>	2.01%
Liabilities				
Purchase of Investments	(33,096,554)	(45,789,010)	12,692,456	-27.72%
Cash Collateral, Securities Lending	(13,851,978)	(18,008,041)	4,156,063	-23.08%
Accounts Payable and Others	<u>(3,349,632)</u>	<u>(3,575,327)</u>	<u>225,695</u>	-6.31%
Total Liabilities	<u>(50,298,164)</u>	<u>(67,372,378)</u>	<u>17,074,214</u>	-25.34%
Net Position Restricted for Pension Benefits	<u>\$1,813,732,776</u>	<u>\$1,759,902,734</u>	<u>\$53,830,042</u>	3.06%

Summary of Additions and Deductions				
Additions	2019	2018	Difference	Percentage of Change
Employer Contributions	\$69,246,070	\$67,895,377	\$1,350,693	1.99%
Plan Member Contributions	12,605,683	12,262,288	343,395	2.80%
Net Income from Investments	78,003,319	131,881,922	(53,878,603)	-40.85%
Net Income from Securities Lending	<u>138,486</u>	<u>115,335</u>	<u>23,151</u>	20.07%
Total Additions	<u>159,993,558</u>	<u>212,154,922</u>	<u>(52,161,364)</u>	-24.59%
Deductions				
Benefit Payments	104,632,253	96,018,500	8,613,753	8.97%
Refunds	911,127	877,705	33,422	3.81%
Administrative Expense	<u>620,136</u>	<u>619,827</u>	<u>309</u>	0.05%
Total Deductions	<u>106,163,516</u>	<u>97,516,032</u>	<u>8,647,484</u>	8.87%
Net Increase/(Decrease)	<u>\$53,830,042</u>	<u>\$114,638,890</u>	<u>(\$60,808,848)</u>	-53.04%

Management’s Discussion and Analysis
(continued)

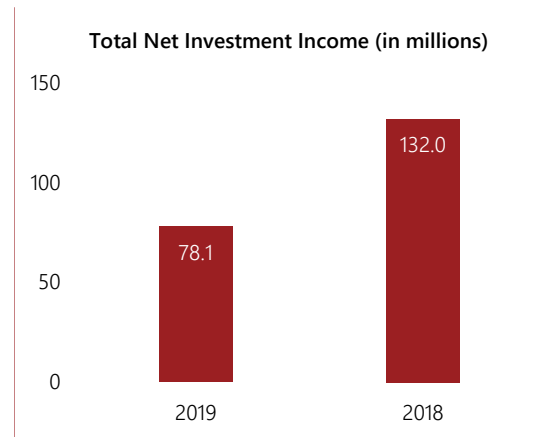
Total liabilities as of June 30, 2019, were \$50.3 million, representing a decrease of \$17.1 million, or 25.34 percent, over the previous year. The decline in total liabilities is due to the decrease in payables for unsettled trades at fiscal year end. There was a 15.70 percent decrease in the accrued liability, including the year end accrual for management fees. In addition, the downturn in the liability is brought by the decline in the securities lending cash collateral by \$4.2 million or 23.08 percent.

contributions for fiscal year 2019 increased by 1.99 percent only as employer contribution rate remained, for the third year, at 38.84 percent of salary. Employee contributions increased by 2.80 percent, due to merit and 1.8 percent COLA increases.

The System experienced a 20.07 percent increase in net income from securities lending despite higher rebates paid in lending securities during the fiscal year 2019. Investment returns declined for fiscal year 2019, reflecting less favorable returns in the capital markets. Total net investment income (including securities lending) declined from \$132.0 million in fiscal year 2018 to \$78.1 million in fiscal year 2019 as a result of lower investment performance in a fluctuating market.

	2019	2018	Difference	Percentage of Change
Accrued Liabilities (in thousands)	\$1,468.0	\$1,741.5	(\$273.5)	-15.70%

The total assets of \$1,864.0 million exceeded its liabilities of \$50.3 million at the close of the Plan year ended June 30, 2019, with \$1,813.7 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.

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 2019 were \$106.2 million, an increase of \$8.6 million, or 8.87 percent, over fiscal year 2018.

Additions and Deductions

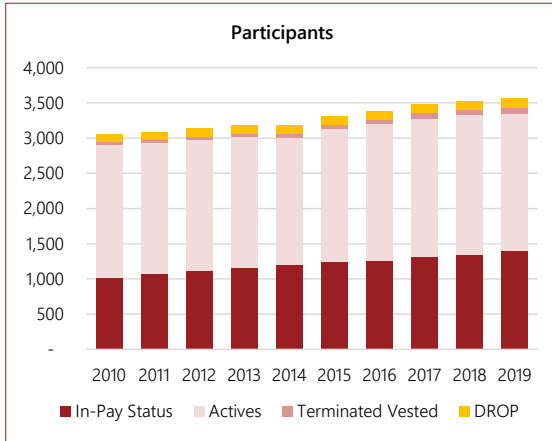
Total additions to the retirement fund consist of contributions from employers and active members and changes in the value of assets. Total additions decreased by \$52.2 million or 24.59 percent in fiscal year 2019 attributed primarily due to smaller investment gains in fiscal year 2019 versus fiscal year 2018. Interest and dividend income also experienced a slight decrease. This lower return compared to the previous year’s investment performance was due to the less favorable market environment in fiscal year 2019.

Regular pension benefit payments increased as the number of retirees and beneficiaries receiving benefit payments rose to 1,402 in fiscal year 2019 from 1,354 in fiscal year 2018. Benefit payments also increased due to a cost-of-living increase of 1.8 percent and higher average benefits for new retirees. Refunds reflected a 3.81 percent increase due to higher employee turnover, separation in the current fiscal year, more employees asking for refunds or higher balance of refunded amounts.

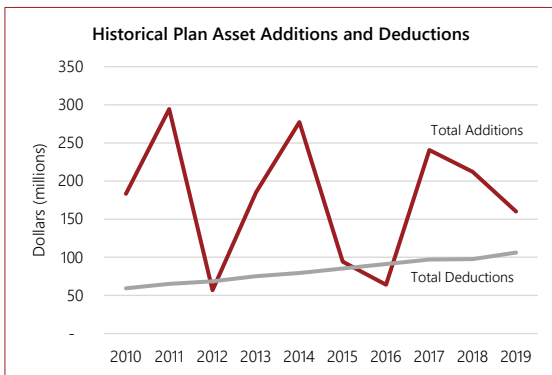
Total contributions for the fiscal year ended June 30, 2019, amounted to \$81.8 million. This was an increase of \$1.6 million when compared with the activity of fiscal year 2018. The employer

Management's Discussion and Analysis
(continued)

Participant Count	2019	2018
Actives	1,939	1,974
DROP Members	137	117
Terminated Vesteds	89	83
Retirees in Payment Status	<u>1,402</u>	<u>1,354</u>
Total	<u>3,567</u>	<u>3,528</u>



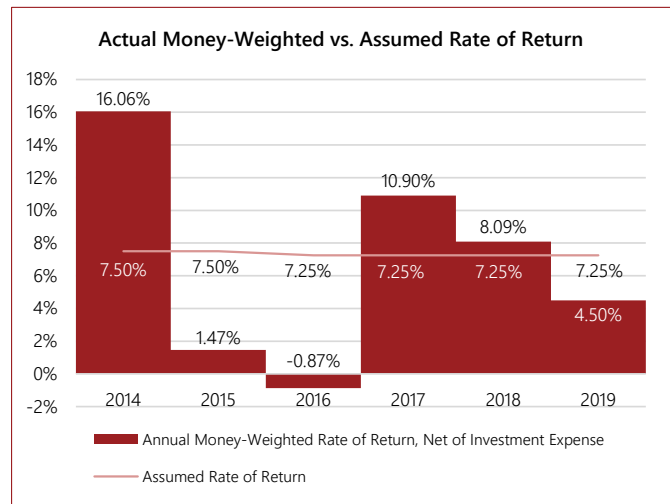
Historical additions to and deductions from fiduciary net position indicate a pattern of steadily increasing deductions compared to fluctuating additions as a result of unpredictable market performance.



The System utilizes two methodologies when analyzing investment returns. They may vary from each other in any given period. For GASB 67 accounting valuation purposes, a money-weighted return is used. A money-weighted rate of return calculates the investment performance accounting for all cash flows (contributions and withdrawals) occurring during the performance measurement period. The System's investment returns, net of fees, on a money-weighted rate of return declined from 8.09 percent to 4.50 percent in fiscal year 2019.

For investment performance reporting purposes, the System relies on a time-weighted approach. A time-weighted rate of return minimizes the impact of cash flows occurring throughout the measurement period. This methodology allows the System to compare its investment performance with relevant benchmark returns, as well as its performance with other pension plans. The System's investment returns, net of fees, on a time-weighted rate of return declined from 8.08 percent to 4.54 percent in fiscal year 2019.

The annual money-weighted rate of return of 4.50 percent was below the assumed 7.25 percent rate of return for the year ended June 30, 2019.



Management’s Discussion and Analysis

An actuarial valuation is performed annually by Cheiron. The actuarial value of the assets as of the last valuation on June 30, 2019, was \$1,859.3 million, while actuarial liabilities as of the same period was \$2,209.4 million. As of June 30, 2019, the date of the most recent actuarial valuation, the funded ratio of the System was 84.15 percent. This was an increase of 0.50 percent from the July 1, 2018, valuation funded ratio of 83.65 percent.

Under GASB 67 calculation, using the December 31, 2018 data rolled forward to June 30, 2019, the plan fiduciary net position as a percentage of the total pension liability was 82.09 percent. It decreased from 82.79 percent in fiscal year 2018, primarily as a result of the growth in the Plan Fiduciary Net Position. The Total Pension Liability as of June 30, 2019, and June 30, 2018, was \$2,209.4 million and \$2,125.8 million, respectively.

Investment Management Fees

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. 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/.

(Dollars in millions)	2019	2018
Actuarial Accrued Liability	\$2,209.4	\$2,125.8
Actuarial Value of Assets	<u>1,859.3</u>	<u>1,778.3</u>
Unfunded Actuarial Liability	<u>\$350.2</u>	<u>\$347.6</u>
Funding Ratio	84.15%	83.65%
Total Pension Liability	\$2,209.4	\$2,125.8
Plan Fiduciary Net Position	<u>1,813.7</u>	<u>1,759.9</u>
Net Pension Liability	<u>\$395.7</u>	<u>\$365.9</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	82.09%	82.79%

Basic Financial Statements

Statement of Fiduciary Net Position

as of June 30, 2019

Assets

Cash and Short-Term Investments

Equity in County's Pooled Cash and Temporary Investments	\$2,970,571	
Cash Collateral Received for Securities on Loan	13,851,978	
Short-Term Investments	<u>138,257,366</u>	
Total Cash and Short-Term Investments		\$155,079,915

Capital Assets

Building Improvements, net	4,430	
Equipment, net	<u>6,083</u>	
Total Capital Assets		10,513

Receivables

Accounts Receivable	4,422,971	
Accrued Interest and Dividends	3,476,861	
Investment Proceeds and Other Receivables	<u>29,579,765</u>	
Total Receivables		37,479,597

Investments, at Fair Value

Common and Preferred Stock	288,513,712	
Fixed Income		
Asset-Backed Securities	75,975,545	
Corporate and Other Bonds	113,408,686	
U.S. Government Obligations	43,215,007	
Pooled and Mutual Funds	<u>1,150,347,965</u>	
Total Investments		<u>1,671,460,915</u>
Total Assets		1,864,030,940

Current Liabilities

Investment Purchases and Other Liabilities	33,096,554	
Cash Collateral Received for Securities on Loan	13,851,978	
Accounts Payable and Accrued Expenses	3,292,787	
Compensated Absences, Short-Term	29,056	

Noncurrent Liabilities

Compensated Absences, Long-Term	<u>27,789</u>	
Total Liabilities		<u>50,298,164</u>

Net Position Restricted for Pension Benefits**\$1,813,732,776**

See accompanying notes to financial statements.

Basic Financial Statements

Statement of Changes in Fiduciary Net Position

For the Year Ended June 30, 2019

Additions

Contributions		
Employer	\$69,246,070	
Plan Members	<u>12,605,683</u>	
Total Contributions		\$81,851,753
Investment Income from Investment Activities		
Net Appreciation in Fair Value of Investments	66,076,422	
Interest	13,845,692	
Dividends	<u>13,760,379</u>	
Total Investment Income	93,682,493	
Investment Activity Expense		
Management Fees	(14,718,694)	
Custodial Fees	(72,364)	
Consulting Fees	(331,380)	
Allocated Administration Expense	<u>(556,736)</u>	
Total Investment Expense	(15,679,174)	
Net Income from Investment Activities		78,003,319
Securities Lending Activities		
Securities Lending Income	613,397	
Securities Lending Expenses	<u>(474,911)</u>	
Net Income from Securities Lending Activities		<u>138,486</u>
Total Net Investment Income		<u>78,141,805</u>
Total Additions		159,993,558

Deductions

Annuity Benefits	95,256,500	
Disability Benefits	8,065,107	
Survivor Benefits	1,310,646	
Refunds of Employee Contributions	911,127	
Administrative Expense	<u>620,136</u>	
Total Deductions		<u>106,163,516</u>
Net Increase		53,830,042
Net Position Restricted for Pension Benefits		
Beginning of Fiscal Year		1,759,902,734
End of Fiscal Year		<u>\$1,813,732,776</u>

See accompanying notes to financial statements.

Notes on Financial Statements

The Fairfax County Uniformed Retirement System ("System" or "Plan") 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, 2019, 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.

Compensated Absences	
FY 2019 Beginning Balance	\$55,834
Leave Earned	40,116
Leave Used	<u>39,105</u>
FY 2019 Ending Balance	<u>\$56,845</u>
Due Within One Year	\$29,056

Notes on Financial Statements

(continued)

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

The Pre-62 Supplement: Estimated Primary Social Security Benefit multiplied by a ratio, not to exceed one, of the years of credited service as of the date of the calculation, to 25. If the member was hired prior to July 1, 1976, this ratio is equal to one. The supplement is reduced by the Social Security benefits the member is eligible to receive.

Pre-Social Security Supplement (Plan B): Calculated at 0.2 percent of average final compensation multiplied by credited service.

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

Pre-Social Security Supplement for Plans 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.

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.

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 average monthly workers' compensation, or 90.0 percent of salary at the time of retirement.

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.

Notes on Financial Statements
(continued)

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 Rates

Member	Plan B	7.08% of base salary up to the maximum Social Security wage base plus 8.83% of creditable compensation in excess of the Social Security wage base.
	Plan D and E	7.08% of creditable compensation.
Employer	Plan B, D, and E	The rate for Fiscal Year 2019 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, 2019, the date of the latest actuarial valuation, membership in the System consisted of:

Retirees and Beneficiaries Receiving Benefits	1,402
Terminated Vesteds	89
Deferred Retirement Option Program (DROP) Participants	137
Active Plan Members	<u>1,939</u>
Total	<u>3,567</u>

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, 2019, was \$16.9 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 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 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, 2019, was 28.20 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 2019. The total contributions for the fiscal year ended June 30, 2019, amounted to \$81.8 million.

F. Deductions

The deductions from the System include the payment of retiree and beneficiary payments, the refund of employee contributions to former members and administrative expenses. The total deductions for the fiscal year ended June 30, 2019, amounted to \$106.2 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, 2019. 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	38.0%
Global Fixed Income	25.0%
Global Multi-Asset	10.0%
Global Real Assets	14.0%

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, 2019, 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, 2019, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 4.50 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				
	6/30/2019	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Investments by Fair Value Level				
Asset-Backed Securities	\$75,975,545	\$ -	\$75,975,545	\$ -
Convertible Securities	27,708	27,708	-	-
Corporate and Other Bonds	110,188,668	-	110,141,877	46,791
Equity	286,837,217	286,837,217	-	-
Futures Contracts	3,192,310	3,192,310	-	-
Preferred Securities	1,676,495	812,400	864,095	-
Short-Term Investments	138,257,366	11,637,094	2,974,364	123,645,908
U.S. Government Obligations	<u>43,215,007</u>	-	<u>43,215,007</u>	-
Total Investments by Fair Value Level	\$659,370,316	\$302,506,729	\$233,170,888	\$123,692,699
Investments Measured at Net Asset Value (NAV)				
Absolute Return	\$306,378,314			
Global Equity	221,736,182			
Global Fixed Income	252,508,133			
Global Multi-Asset	222,481,243			
Global Real Assets	<u>147,244,093</u>			
Total Investments Measured at NAV	<u>\$1,150,347,965</u>			
Total Investments	<u>\$1,809,718,281</u>			

Notes on Financial Statements

(continued)

Investments Measured at NAV				
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Absolute Return	\$306,378,314	\$-	Daily, Monthly, Quarterly	2 - 90 days
Global Equity	221,736,182	84,955,426	None, Daily, Monthly	0 - 30 days and N/A
Global Fixed Income	252,508,133	53,285,308	None, Daily, Monthly, Quarterly	0 - 90 days and N/A
Global Multi-Asset	222,481,243	-	Monthly	5 - 15 days
Global Real Assets	<u>147,244,093</u>	<u>22,150,923</u>	None, Daily, Quarterly	0 - 60 days and N/A
Total Investments Measured at NAV	<u>\$1,150,347,965</u>	<u>\$160,391,657</u>		

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 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 second 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. The third hedge fund is a multi-strategy event driven hedge fund. Underlying strategies include distressed debt, relative value, event driven equity, value equity and leveraged loans. The Fund invests opportunistically throughout the capital

structures and targets catalysts in a variety of event equity and event credit strategies. The Fund will invest across several sectors but has historically held a bias and preference towards companies in the gaming, lodging, leisure and real estate sectors. Investments are predominantly made with small and mid-cap US-based companies, and historically the Fund's exposure has been 85-90% US-based. Structured credit, municipal debt, and sovereign debt are generally avoided.

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

Notes on Financial Statements

(continued)

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 using derivatives which 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 fund. The 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 three international equity funds. The first 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.

Notes on Financial Statements (continued)

The second fund has long-term strategies based on a blend of fundamental and qualitative disciplines which are applied to construct well-diversified portfolios with a mid-cap value market bias. The approach is differentiated by its competition/capital base analysis especially as applied to industry selection. Over time capital flows within an economy will cause sector returns to tend toward mean market rates of return. Research focus is placed on industries in a state of disequilibrium, offering below average rates of return, where barriers to capital movement suggest that returns will improve. The third fund invests primarily in stocks of companies based outside the U.S. with market capitalizations between approximately \$500 million to \$20 billion. The Fund may hold companies long after they exceed market capitalizations of \$20 billion, as long as they continue to exhibit the fundamental and price criteria the Manager believes are important. The Fund does not focus on any particular geographic area and its geographic concentration may change over time depending on market conditions. They buy undiscovered small-cap stocks in sustainable secular growth businesses. Using friendly activism to engage with management teams to create positive changes.

Private Equity:

This type includes eight private equity fund-of-funds and two direct funds. 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. 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. The fund 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 seven 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

Notes on Financial Statements (continued)

securities. The fair values of the investments in these funds have been determined using NAV per share (or its equivalent) of the investments. The fifth fund seeks to capitalize on the liquidity crisis by purchasing Mortgage Backed, Asset Backed and other distressed securities believed to be priced below the fundamental credit risk inherent in those securities. The sixth fund employs a top-down approach using fundamental analysis of duration, yield curve, and sectors in its fixed income portfolio construction. The portfolios are dominated by treasuries, agencies and agency guaranteed mortgage pass-throughs. All corporate bonds must be rated a minimum of single "A" or better. They do not invest in any spread product with a maturity greater than ten years in order to contain risk. The high quality bias of the issues utilized reduces credit risk while ensuring ample liquidity. The seventh fund uses a top-down macroeconomic analysis to position the portfolio using a relative approach for sector allocation and issue selection. They use fundamental credit research designed to find hidden value across the fixed income universe. They will also move up and down the yield curve to capture value.

International Fixed Income:

This type includes two funds that invest in non-U.S. fixed income securities. The first 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. The second fund focuses on investments that

have high real interest rates and an undervalued appreciating currency. The manager creates client portfolios with above average real yields and concentrate assets in those countries where value is greatest, and there is a catalyst for the realization of that value.

Private Debt:

This type includes five 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.

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 using 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.

Notes on Financial Statements (continued)

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, metals 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 four 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. The fourth fund utilizes a top-down approach; evaluating property sectors based on national and regional economic trends, capital market conditions, and property type fundamentals. Having established target sector weightings, within each sector they select the best-positioned companies subject to relative valuation. Their process is differentiated by using both equity evaluation and real estate skills in portfolio construction.

Notes on Financial Statements
(continued)

E. Quality Ratings

The System's investment quality ratings at June 30, 2019, for separately managed fixed income accounts, were as follows:

Type of Investment	Fair Value	Ratings	Percentage of Fixed
U.S. Government Obligations	\$43,215,007		18.57%
Asset-Backed Securities	2,922,419	AAA	1.26%
	22,969,069	AA	9.87%
	567,125	A	0.24%
	2,108,084	BBB	0.91%
	1,101,460	BB	0.47%
	1,736,916	B	0.75%
	1,710,076	CCC	0.74%
	1,783,007	CC	0.77%
	1,708,181	D	0.73%
	39,369,208	Unrated	16.93%
Corporate and Other Bonds	317,748	AAA	0.14%
	15,885,287	AA	6.83%
	48,579,434	A	20.89%
	24,963,591	BBB	10.73%
	7,907,783	BB	3.40%
	1,609,995	B	0.69%
	286,466	CCC	0.12%
	<u>13,858,382</u>	Unrated	<u>5.96%</u>
Total Fixed Income	<u>\$232,599,238</u>		<u>100.00%</u>
Short-Term Investments			
Cash and Cash Equivalents	\$2,551,195	Unrated	
Uniformed STIF*	124,069,077	Unrated	
U.S. Treasury Bill	<u>11,637,094</u>		
Total Short-Term Investments	<u>\$138,257,366</u>		

*Short-term investment funds

As of June 30, 2019, the fixed income portfolio, excluding pooled funds, consisted of 50.87 percent invested in investment grade securities, 7.67 percent invested in below-investment-grade securities and 41.46 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, 2019, were as follows:

Investment Type	Fair Value	Option Adjusted Duration (yrs)	Percentage of Fixed
U.S. Government Obligations	\$43,215,007	12.1	18.57%
Corporate and Other Bonds	113,408,686	3.0	48.76%
Asset-Backed Securities	<u>75,975,545</u>	3.7	<u>32.67%</u>
Total Fixed Income	<u>\$232,599,238</u>	4.9	<u>100.00%</u>
Short-Term Investments			
Cash and Cash Equivalents	\$2,551,195	0.0	
Uniformed Enhanced STIF*	124,069,077	0.1	
U.S. Treasury Bills	<u>11,637,094</u>	0.3	
Total Short-Term Investments	<u>\$138,257,366</u>		
*Short-Term investment funds			

The duration of the System's overall fixed income portfolio excluding pooled fund was 4.9 years for the separately managed accounts. BCAG established option-adjusted duration was 5.53 years.

G. Short-term Investments

The Short term investments of \$138.3 million includes a position of \$124.1 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 international investments. The System hedges away 50 percent of the currency risk for the whole portfolio using currency derivatives. The System's investments at June 30, 2019, held in currencies other than U.S. dollars were as follows:

International Securities	Short-Term & Other Investments	Convertible & Fixed Income	Equity	Total
Australian Dollar	\$8,504	\$2,704,631	\$8,502,097	\$11,215,232
Brazil Real	950	2,417,722	-	2,418,672
Colombian Peso	9	2,667,295	-	2,667,304
Danish Krone	-	-	9,839,222	9,839,222
Euro Currency Unit	128,947	367,140	47,722,994	48,219,081
Hong Kong Dollar	3,112	-	11,046,771	11,049,883
Indonesian Rupiah	-	1,985,238	133,781	2,119,019
Japanese Yen	1,151,398	-	50,549,312	51,700,710
Malaysian Ringgit	-	3,365,188	-	3,365,188
Mexican Peso	-	7,050,620	-	7,050,620
New Taiwan Dollar	13,070	-	2,816,320	2,829,390
Norwegian Krone	9	-	2,014,465	2,014,474
Polish Zloty	-	3,105,747	-	3,105,747
Pound Sterling	19,322	(79,226)	52,316,770	52,256,866
Singapore Dollar	-	-	1,985,206	1,985,206
South African Rand	6	2,590,787	183,965	2,774,758
South Korean Won	-	-	3,912,653	3,912,653
Swedish Krona	(1,913)	-	6,014,942	6,013,029
Swiss Franc	110	-	9,785,687	9,785,797
Other	<u>5,159</u>	<u>1,400,405</u>	<u>2,396,924</u>	<u>3,802,488</u>
Grand Total	<u>\$1,328,683</u>	<u>\$27,575,547</u>	<u>\$209,221,109</u>	<u>\$238,125,339</u>

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 2019, 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, 2019, 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 with lower transaction costs. Both are exchange traded and so, counter party risk is very low. 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, 2019, were as follows:

Types of Futures	Base Exposure	Notional Cost
Cash and Cash Equivalents		
Short	(\$75,565,463)	(\$75,292,379)
Equity		
Long	231,708,540	228,107,969
Fixed Income Securities		
Long	6,654,375	6,548,344
Short	<u>(20,510,630)</u>	<u>(20,069,011)</u>
Total	<u>\$142,286,822</u>	<u>\$139,294,923</u>

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, 2019:

Foreign Currency Contracts Purchased	Notional (Local Currency)	Cost	Fair Value Payable in U.S. Dollars	Unrealized Gain/(Loss)
Australian Dollar	(370,000)	(\$255,357)	(\$260,104)	(\$4,747)
Polish Zloty	(1,330,000)	(348,587)	(356,740)	(8,153)
South African Rand	(43,500,000)	<u>(2,944,074)</u>	<u>(3,066,483)</u>	<u>(122,409)</u>
		(3,548,018)	(3,683,327)	(135,309)
Foreign Currency Contracts Sold	Notional (Local Currency)	Cost	Fair Value Receivable in U.S. Dollars	Unrealized Gain/(Loss)
Australian Dollar	2,290,000	\$1,631,456	\$1,608,820	(\$22,636)
Chilean Peso	2,413,000,000	3,556,456	3,556,044	(412)
Czech Koruna	24,300,000	1,087,045	1,089,058	2,013
Euro Currency Unit	2,090,000	2,387,783	2,393,656	5,873
Indonesian Rupiah	8,100,000,000	567,883	572,054	4,171
New Zealand Dollar	3,260,000	2,169,677	2,192,566	22,889
Norwegian Krone	42,000,000	4,838,088	4,934,702	96,614
Russian Ruble	46,000,000	697,613	724,872	27,259
South African Rand	7,700,000	518,313	543,132	24,819
South Korean Won	2,498,000,000	2,171,173	2,163,256	(7,917)
Swedish Krona	42,400,000	<u>4,493,836</u>	<u>4,591,624</u>	<u>97,788</u>
		\$24,119,323	\$24,369,784	\$250,461
Net Unrealized Gain/(Loss) on Foreign Currency Spot and Forward Contracts				<u>\$115,152</u>

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 2019 on the amounts of loans the lending agent made on its behalf. At June 30, 2019, 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, 2019, 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, 2019:

Securities Lent	Underlying Securities	Cash Collateral Investment Value	Securities Collateral Investment Value
Lent for Cash Collateral			
U.S. Government Securities	\$407,230	\$415,567	
Corporate and Other Bonds	9,327,437	9,597,624	
Common and Preferred Stock	3,662,163	3,838,787	
Lent for Securities Collateral			
U.S. Government Securities	21,679,392	-	\$22,493,832
Corporate and Other Bonds	1,653,611	-	1,763,819
Common and Preferred Stock	<u>34,890,810</u>	<u>-</u>	<u>39,424,313</u>
Total Securities Lent	<u>\$71,620,643</u>	<u>\$13,851,978</u>	<u>\$63,681,964</u>

K. Reclassifications

During the fiscal year 2019, 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, 2019, were as follows:

Total Pension Liability	\$2,209,429,796
Plan Fiduciary Net Position	<u>1,813,732,776</u>
Net Pension Liability	<u>\$395,697,020</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	82.09%

B. Actuarial Methods and Assumptions

The Total Pension Liability was determined by an actuarial valuation as of June 30, 2019, 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, 2019, was 28.20 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 2019. Since the Systems' 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, and each year the target has been increased with the 2019 fiscal year contribution target being 99.0 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, 2019, valuation were based on the results of an actuarial experience study for the period July 1, 2010 to June 30, 2015.

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

Notes on Financial Statements

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, 2019, 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	7.05%
Real Assets	4.65%
Risk Parity	6.00%
U.S. 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 2019 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 increase to the average aggregate rate for the 2019 active population of 7.08 percent of payroll and County contributions were projected at

38.84 percent for fiscal year 2020 to be contributed until 2033. After that time the County contribution is assumed to decrease to the normal cost plus expenses (15.27 percent) and amortization of any remaining experience gains and losses.

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	\$2,498,988,120	\$2,209,429,796	\$1,969,873,796
Plan Fiduciary Net Position	1,813,732,776	1,813,732,776	1,813,732,776
Net Pension Liability	<u>\$685,255,344</u>	<u>\$395,697,020</u>	<u>\$156,141,020</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	72.58%	82.09%	92.07%

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.

Note 6. Subsequent Events

On December 4, 2018, the Board of Supervisors approved changes to the Retirement Systems' Code to create new plans in each system. Effective July 1, 2019, new employees hired on or after July 1, 2019 will be in Plan F, which is exactly the same as Plan E, except that the benefit formula will no longer include the 3 percent one-time add-on factor and there will be no Pre-Social Security Benefit.

**Required Supplementary Information
(Unaudited)**

Schedule of Changes in the Net Pension Liability and Related Ratios						
Year Ended June 30						
	2019	2018	2017	2016	2015	2014
Total Pension Liability						
Service Cost	\$43,537,010	\$42,113,858	\$39,667,968	\$43,407,620	\$41,720,784	\$39,647,527
Interest	153,521,546	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	(7,935,310)	(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	(105,543,380)	(96,896,205)	(93,608,871)	(90,536,075)	(84,849,425)	(78,916,881)
Net Change in Total Pension Liability	\$83,579,866	\$92,160,478	\$93,232,222	\$56,782,742	\$102,543,503	\$86,390,224
Total Pension Liability - Beginning	<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>	<u>1,694,740,761</u>
Total Pension Liability - Ending (a)	<u>\$2,209,429,796</u>	<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	\$69,246,070	\$67,895,377	\$67,410,252	\$65,548,338	\$60,928,766	\$56,094,690
Contributions - Member	12,605,683	12,262,288	12,223,468	12,020,447	11,473,273	10,905,744
Net Investment Income	78,141,805	131,997,257	161,013,714	(13,447,090)	21,800,261	210,256,032
Benefit Payments, Including Refunds of Member Contributions	(105,543,380)	(96,896,205)	(93,608,871)	(90,536,075)	(84,849,425)	(78,916,881)
Administrative Expenses	(620,136)	(619,827)	(477,564)	(500,255)	(455,440)	(433,541)
Net Change in Plan Fiduciary Net Position	\$53,830,042	\$114,638,890	\$146,560,999	(\$26,914,635)	\$8,897,435	\$197,906,044
Plan Fiduciary Net Position - Beginning	<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>	<u>1,318,814,001</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$1,813,732,776</u>	<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>\$395,697,020</u>	<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	82.09%	82.79%	80.90%	77.23%	80.99%	85.15%
Covered Payroll	<u>\$178,285,453</u>	<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	221.95%	209.34%	223.80%	261.69%	222.73%	171.72%

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)

Schedule of Net Pension Liability						
Year Ended June 30						
	2019	2018	2017	2016	2015	2014
Total Pension Liability	\$2,209,429,796	\$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>1,813,732,776</u>	<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>\$395,697,020</u>	<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>
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Covered Payroll	<u>\$178,285,453</u>	<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	221.95%	209.34%	223.80%	261.69%	222.73%	171.72%

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

Schedule of Money-Weighted Rate of Return	
Fiscal Year	Annual Money-Weighted Rate of Return, Net of Investment Expense
2019	4.50%
2018	8.09%
2017	10.90%
2016	-0.87%
2015	1.47%
2014	16.06%
2013	10.20%
2012	-0.30%
2011	24.18%
2010	15.50%

Required Supplementary Information
(continued)

Schedule of Employer Contributions					
Fiscal Year	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2019	\$69,246,070	\$69,246,070	\$ -	\$178,285,453	38.84%
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%

Notes to Schedule	
Valuation Date	6/30/2017
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 99% 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, 2019, can be found in the June 30, 2017, 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
2019	38.84%	7.08%, Option B 8.83% in excess of Social Security taxable wage base.
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.

December 2018	Retirement Board of Trustees approved a new plan for all employees hired on or after July 1, 2019.
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.

Other Supplementary Information

Schedule of Investment & Consultant Expenses

For the Year Ended June 30, 2019

Investment Activity Expenses	
Investment Manager Fees	\$14,718,694
Custodial Fees	72,364
Consultant Expenses	
Consultant Expenses	331,380
Allocated Administration Expense	<u>556,736</u>
Total Investment and Consultant Expenses	<u>\$15,679,174</u>

Schedule of Administrative Expenses

For the Year Ended June 30, 2019

Personnel Services	
Salaries and Wages	\$320,377
Fringe Benefits	<u>146,570</u>
Total Personnel Services	\$466,947
Professional Services	
Actuarial	34,340
Audit	<u>6,589</u>
Total Professional Services	40,929
Communications	
Phone Charges	3,124
Printing, Binding and Copying	2,354
Postage	<u>3,392</u>
Total Communications	8,870
Supplies	
Office Supplies	<u>1,581</u>
Total Supplies	1,581
Other Services and Charges	
Staff Travel and Development	1,288
Professional Membership	642
Professional Subscription	254
Insurance	10,982
Building Rent	33,008
Depreciation Expense	617
Computer System	41,718
Other Operating	<u>13,300</u>
Total Other Services and Charges	<u>101,809</u>
Total Administrative Expenses	<u>\$620,136</u>



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 the 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, 2019 and the related notes to the financial statements, and have issued our report thereon dated November 14, 2019.

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 14, 2019



County of Fairfax, Virginia

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

October 8, 2019

Dear Members of the Board of Trustees:

The U.S. economy continued its historically long growth streak over the fiscal year that ended June 30, 2019, providing an accommodative backdrop for capital markets. Midway through the year, the Federal Reserve reversed course and adopted a more dovish stance, signaling the potential to cut rates in the near future. The Fed mirrored most other central banks whose accommodative policies are expected to persist in 2019 and, perhaps, beyond. As a result, risk assets pushed higher across the board. Domestic stocks, as measured by the S&P 500 Index, capped off the fiscal year on a record high. U.S. equities outperformed their international counterparts by 9.3%, with the S&P 500 and MSCI EAFE (net) indexes returning 10.4% and 1.1%, respectively. Developed international equity markets were in the black despite a strengthening U.S. dollar and concerns around U.S. trade policy. Emerging market equities underperformed the U.S. but modestly outpaced developed international equities. The dovish pivot by the Fed also bolstered fixed income returns, broadly causing yields to decline. In the U.S., high-quality fixed income, as measured by the Bloomberg Barclays U.S. Aggregate Bond Index, returned 7.9%. Credit spreads also narrowed amid a sustained appetite for risk, resulting in the Barclays U.S. High Yield Index returning 7.5%.

During the quarter ended September 30, 2018, global markets rose led primarily by the U.S. and, more specifically, growth stocks. The S&P 500 gained 7.7% in the three months ending September 30th, led by the healthcare sectors performance. Japanese equities were also a strong performer, driven by continued reforms and the reelection of its prime minister. Meanwhile, stocks didn't fare as well in the U.K. as concerns mounted around Brexit; emerging markets were hurt by a currency crisis in Turkey and tensions relating to U.S.-China trade relations, U.S. credit was affected by higher interest rates and the ongoing trade war. The rate hike in September pushed the Fed Funds rate to its peak since October 2008. The Bloomberg Barclays High Yield Index finished the third quarter ending September 30th, 2018 up 2.4% and the S&P LSTA Leveraged Loan Index gained 1.3%; loans remained in the lead for the 2018 year with gains of 4% compared to 2.6% for high yield. The U.S. Long Credit Index was up 1.3%, and the U.S. Long Treasury lost 2.9% with the yield on the 10-year Treasury increasing 20 basis points to close at 3.06%. In emerging markets, U.S. dollar-denominated debt was up 1.5%, according to the JPM EMBI Index, while local currency debt lost 1.8%, according to the JPM GBI-EM Index.

Global equities across the board took a severe beating in the fourth quarter of 2018 with the MSCI ACWI Index down -12.8%; energy, the worst performing sector, lost -20.2%. The MSCI EAFE Index was in the red at -12.5%. In the U.S., stocks recorded their worst quarter in more than seven years with the S&P 500 bleeding -13.5% as investors fretted over the trade dispute between the United States and China, and the pace of interest rate increases. Domestic equities also posted their worst December since the 1930's as large-cap equities outperformed small-caps and value bested growth. Emerging market stocks, which underwent a correction earlier in the 2018 calendar year, outperformed developed markets with the MSCI EM Index falling -7.47% for the quarter. Brazil was the best performing country, buoyed by President-elect Jair Bolsonaro's pick for chief economic advisor and his pledge to sell state-owned companies. Asia lagged, pulled down by declines in



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/

China, Korea and Taiwan. Healthcare and information technology were among the worst performing sectors, losing -15.4% and -15.1%, respectively. In the U.S., high-yield spreads – particularly in the lower-rated CCC segment – widened significantly in the fourth quarter of 2018. The burgeoning BBB-rated segment is a concern for investment-grade and high-yield debt investors. Double the size of the high-yield market, the growth in the BBB-segment has been driven largely by issuance, an increase in mergers and acquisitions, and credit downgrades from A to BBB. Widespread downgrades among BBBs could lead to an oversupply in high-yield securities and pressure prices. For the three months ended December 31st, the Bloomberg Barclays Aggregate rose 1.6% and the Bloomberg Barclays U.S. Long Treasury was up 4.2%. The Bloomberg Barclays High Yield fell -4.5% and the S&P LSTA Leveraged Loan Index lost -3.5% during the same period. Outside the U.S., emerging markets were in the red for calendar year 2018 with local debt, the worst performing, down -6.2% for the calendar year. However, local currency debt proved to be one of the few bright spots for the quarter ended December 31, 2018, posting a gain of 2.1%

Volatility spiked at the end of calendar year 2018, driving U.S. stocks sharply lower in the fourth quarter. The sell-off was largely due to slowing economic growth, heightened trade tensions between the United States and China, and expectations of additional rate hikes by the Fed. U.S. equities quickly recovered in the beginning of 2019 as the Fed assumed a more dovish tone, restoring confidence and providing a powerful tailwind to investor sentiment.

Global equities led the way with gains in the first quarter of 2019. The MSCI ACWI Index rallied 12.2%, with the technology sector up 18.9%. The MSCI China A International Index returned 31% in the first quarter of 2019, recovering from losses of 31.8% in calendar year 2018. During the same period, the HFRI Equity Hedge Index gained 7.7%, its strongest quarterly return since 2009. Emerging Asia hedge funds were up 10.4% while those focused on China gained 14.9%; strategies concentrating on North America and Europe lagged the broader index with returns of 6.6% and 2.9%, respectively. Within sectors, hedge funds focusing on healthcare led performance while technology lagged. Capital flows from hedge funds indicate more cautious positioning with net selling in most cyclical sectors during the quarter; within regions, the positioning was more aggressive with inflows into emerging markets in Asia, especially China. In fixed income, spreads narrowed across the board amid an increased appetite for risk, pausing only momentarily with the inversion of the Treasury yield curve. Spreads on high yield debt tightened to around 400 basis points in the first quarter ending March 31, 2019 from their peak of 530 basis points at the end of 2018; the Bloomberg Barclays High Yield Index gained 7.3% for the three months ended March 31. During the same period, risk premiums on investment grade credit narrowed about 30 basis points to 120 basis points; the Bloomberg Barclays Aggregate Index rose 2.9% and the Bloomberg Barclays US Long Treasury Index gained 4.7% in the first quarter of 2019. Leveraged loans also ended the quarter in the black with returns of 4%, according to the S&P LSTA Leveraged Loan Index.

In the U.S., large-cap financials led the charge with returns of 8.4% in the second quarter of 2019. The MSCI ACWI Index increased 3.6%, with financials up 6.6%; energy was the only outlier, losing -0.8%. During the same period, the HFRI Equity Hedge Index gained 1.7%. Earnings for S&P 500 companies for the second quarter of 2019 are estimated to fall -3.0% from a year ago; this forecast comes on the back of a -4.1% fall in the first quarter, according to FactSet data. The last time around earnings were down two consecutive quarters was in 2016. In fixed income, spreads for investment-grade credit were little changed, at 119 basis points, amid steady demand. In contrast, spreads on the riskier CCC-rated segment of high-yield debt widened as much as 70 basis points, underscoring investor concerns around credit risk associated with the late stage of an economic cycle. The Bloomberg Barclays Aggregate and the Bloomberg Barclays U.S. Long Treasury indexes were up 3.1% and 6.0%, respectively, in the second quarter. The Bloomberg Barclays High Yield Index gained 2.5% and leveraged loans returned 1.6%, according to the S&P LSTA Leveraged Loan Index. Net outflows continued for high yield and levered loan funds, while investment-grade funds experienced net inflows during the quarter.

Uniformed Retirement System

For fiscal year 2018 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, 2019, the Fairfax County Uniformed Retirement System stood at \$1.813 billion, up from \$1.760 billion at the end of fiscal year 2018. For the year ending June 30th, 2019, the system returned +4.54% net of fees, ranking in the 92nd percentile of all public funds in the InvestorForce Public Defined Benefit Net Universe. For the three- and five-year periods (annualized), the system returned net of fees +7.81%, ranking in the 86th percentile, and +4.74% ranking in the 91st percentile. While maintaining a lower level of risk as measured by the standard deviation. The three- and five-year annualized standard deviation were 5.96%, ranking in the 15th percentile, and 6.08%, ranking in the 14th percentile, respectively. Active management added 120 and 40 basis points over the trailing three- and five-year periods. For the longer ten-year period the System had a net of fees return of 8.67%, ranking in the 65th percentile, with an annualized standard deviation of 7.72%, ranking in the 33rd percentile.

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. HG Vora was added to the Absolute Return lineup; Monroe Capital and Bluebay were added to Private Debt lineup; Apollo and Sigular Guff were added to Private Equity 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, 2019

Asset Class	Manager	Investment Style	Fair Value	% of Total Portfolio
Absolute Return				
	AQR Style Premia*	Relative Value	\$34,390,747	1.90%
	Aspect Capital Limited*	Global Macro	36,639,425	2.02%
	Bridgewater Associates Pure Alpha*	Global Macro	41,776,267	2.30%
	Davidson Kempner Capital Management*	Multi-Strategy	35,238,215	1.94%
	HG Vora Special Opps*	Event Driven	34,257,605	1.89%
	Millennium Management*	Relative Value	41,543,450	2.29%
	Orbimed Advisors*	Equity Long/Short	37,585,528	2.07%
	Starboard Value and Opportunity*	Event Driven	44,947,077	2.48%
Global Equity				
	Acadian Asset Management*	Int'l Emerging Markets	117,060,466	6.46%
	HarbourVest FUND IX*	Private Market Equity	8,494,070	0.47%
	HarbourVest International Partners VI*	Private Market Equity	4,080,341	0.23%
	HarbourVest PART XI*	Private Market Equity	36,666	0.00%
	HarbourVest Partners*	Private Market Equity	1,766,156	0.10%
	HarbourVest X*	Private Market Equity	14,561,277	0.80%
	J.P. Morgan Private Equity*	Private Market Equity	2,871,753	0.16%
	Kaboutter Management*	Int'l Developed Small Cap	46,557,222	2.57%
	Levine Leichtman Capital Partners, Inc*	Private Market Equity	5,240,080	0.29%
	Marathon Asset Management - London	Int'l Developed Markets	187,569,506	10.35%
	Pantheon Global Secondary V*	Private Market Equity	13,583,674	0.75%
	Pantheon Secondary*	Private Market Equity	2,056,074	0.11%
	Pantheon USA Fund*	Private Market Equity	166,779	0.01%
	Thoma Bravo, LLC*	Private Market Equity	5,325,655	0.29%
	Wellington Management Company	U.S. SMid Cap Value	50,030,060	2.76%
Global Fixed Income				
	Alcentra*	Credit	19,919,835	1.10%
	Anchorage Capital Partners*	High Yield Bonds	37,906,397	2.09%
	Apollo Financial Credit Investment III, LLC*	Private Market Equity	10,878,727	0.60%
	Ashmore Investment Management*	Emerging Markets Debt	76,121,170	4.20%
	Blue Bay*	Private Credit	4,545,429	0.25%
	Brandywine Asset Management	Global Bonds	54,847,403	3.03%
	CZECH III*	Private Credit	11,950,635	0.66%
	DoubleLine Capital	Mortgage-Backed Securities	67,222,477	3.71%
	Garcia Hamilton & Associates	Core Bonds	72,428,028	4.00%
	GoldenTree Asset Management*	High Yield Bonds	39,710,605	2.19%
	King Street Capital*	High Yield Bonds	1,114,316	0.06%
	Manulife Asset Management	Core Bonds	46,511,024	2.57%
	Monroe Capital III*	Private Credit	10,856,941	0.60%
	PIMCO DiSCO II*	Private Credit	39,237,170	2.16%
	SJC Direct Lending Fund*	Private Credit	343,525	0.02%
Global Multi-Asset				
	AQR Global Risk Prem*	Core Risk Parity	115,157,223	6.35%
	Bridgewater All Weather*	Core Risk Parity	107,324,020	5.92%
Global Real Assets				
	Cohen & Steers Capital Management	Global Real Estate Securities	58,653,803	3.24%
	Gresham Inflation Hedges*	Commodity Futures	29,320,416	1.62%
	Landmark Partners*	Real Estate	4,162,534	0.23%
	Sigular Guff*	Real Estate	23,637,868	1.30%
	UBS Realty*	Real Estate	56,973,469	3.14%
	Wellington Diversified Inflation Hedges*	Multi-Real Asset	33,149,807	1.83%
Short Term and Others				
	BNY Mellon Cash Investment Strategies STIF	Plan Level Cash Account	2,932,893	0.16%
	BNY Mellon Cash Management	Plan Level Cash Account	19,992,032	1.10%
	Cash Held at County Treasurer	Operating Cash Account	2,992,168	0.17%
	Parametric Portfolio Associates LLC	Overlay	98,980,916	5.46%
Total Investments			\$1,812,648,924	100.00%

* Pooled Funds

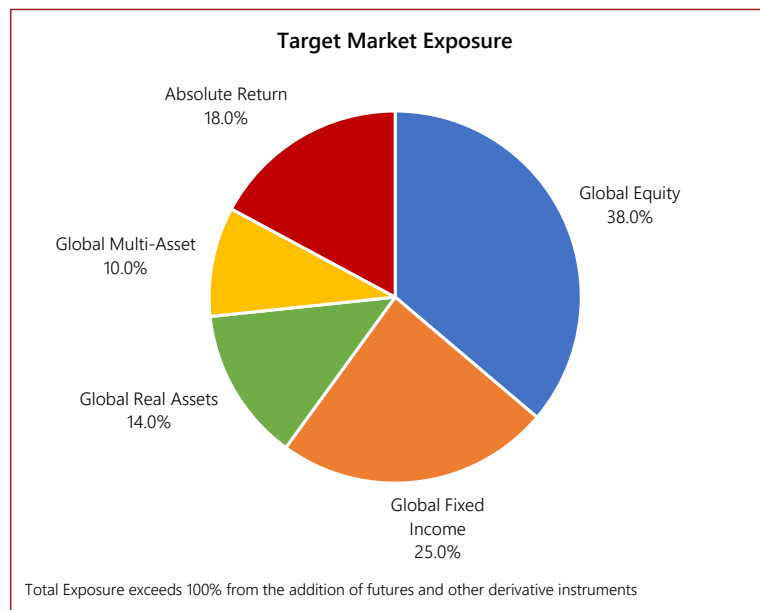
** See pages 8-9 for complete listing of investment professionals

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, 2019. 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.

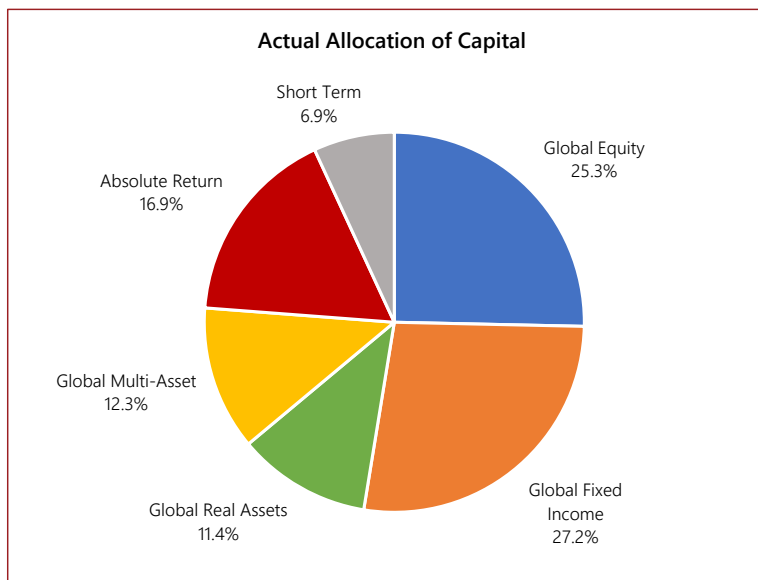
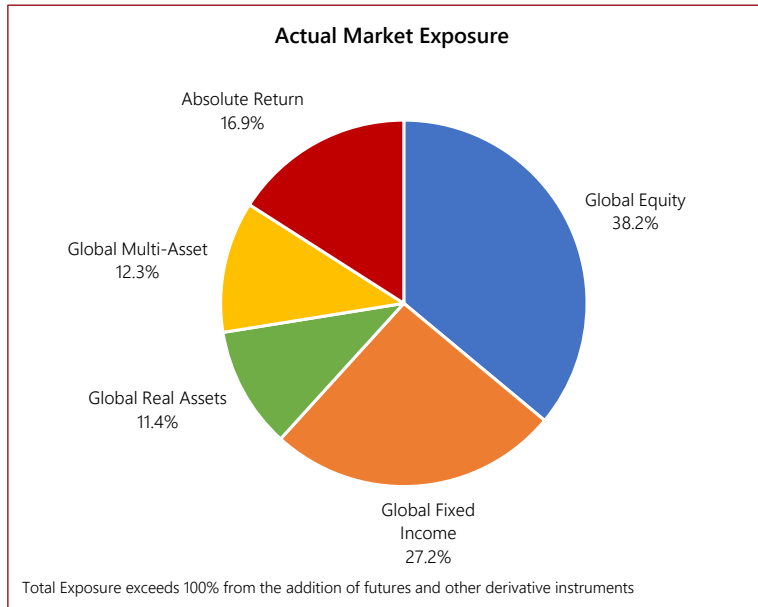
The pie chart below details the target asset mix, consistent with the achievement of the long-term objectives of the System, as of June 30, 2019.



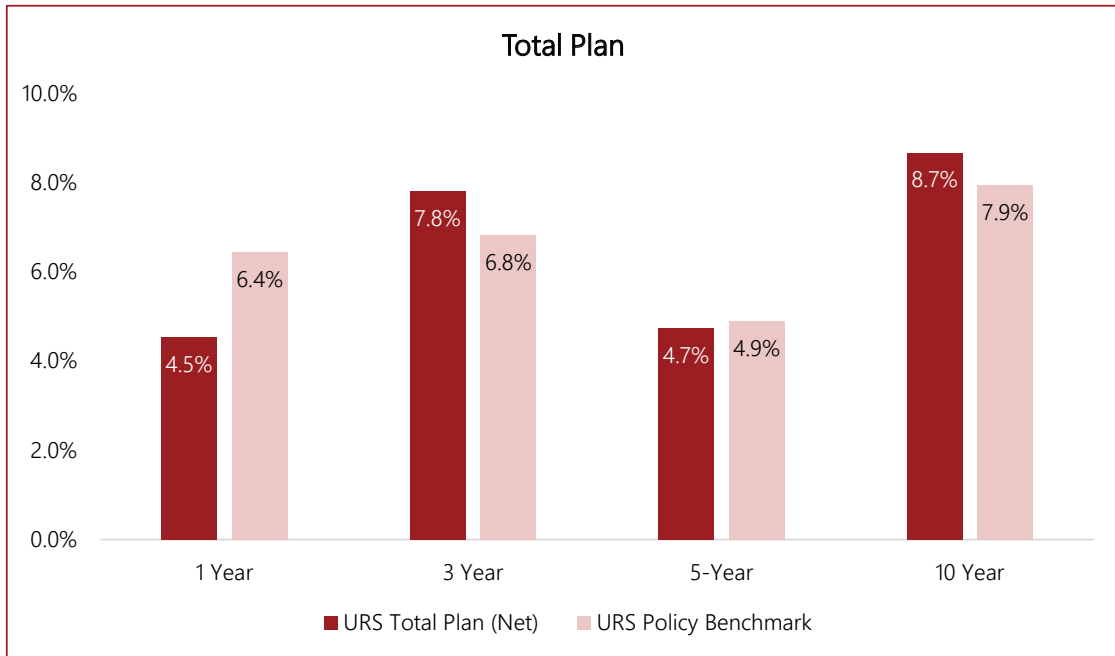
Actual Asset Allocation as of June 30, 2019

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.

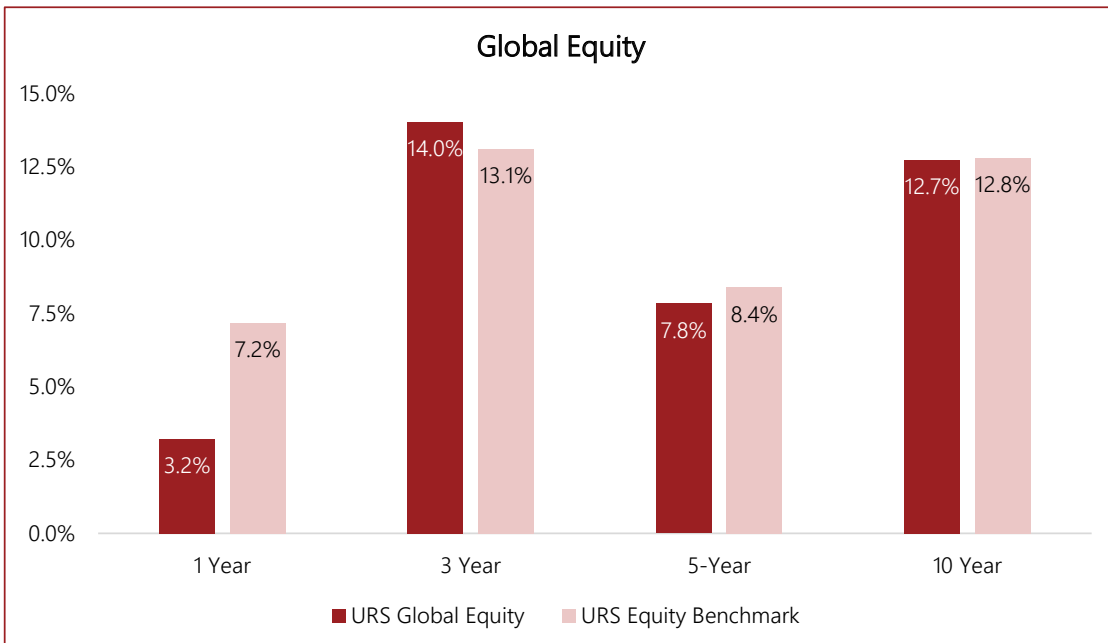
The pie chart below details the actual asset allocation as of June 30, 2019.



Investment Results
(Time-Weighted Return, net of Fees)

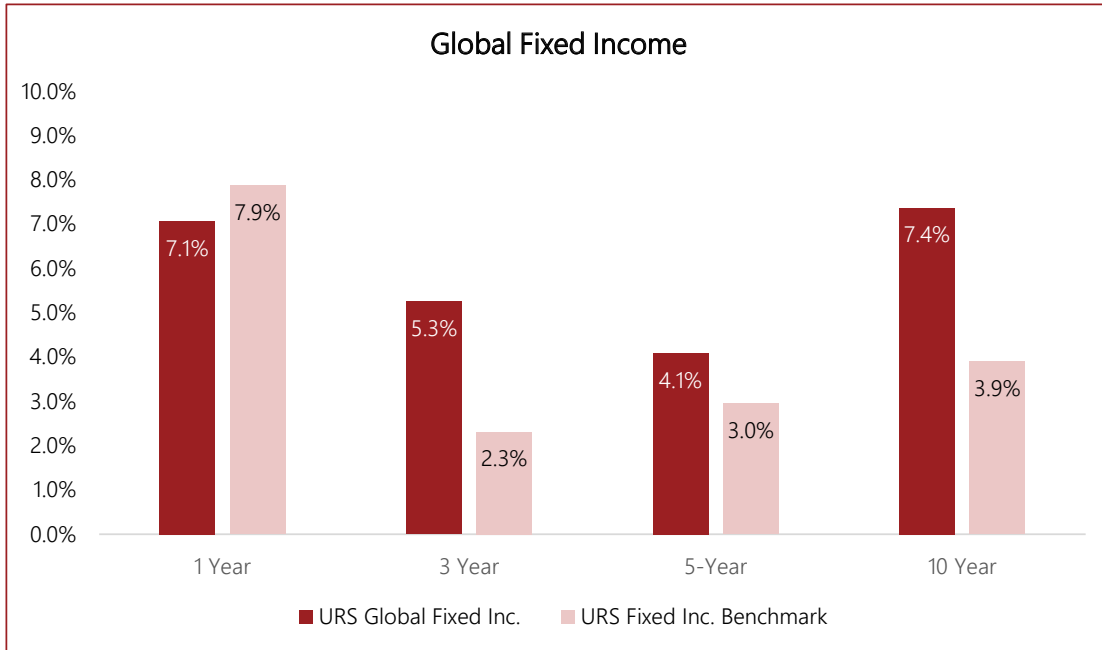


*Blended Benchmark. Current Benchmark: 6% MSCI Emerging Markets Net, 4% JP Morgan Emerging Mkt Bond Index GD, 3% FTSE EPRA/ NAREIT Developed Index, 5% NCREIF Open End Diversified Core, 3% Citigroup World Govt, 6% Credit Suisse High Yield, 11% Barclays US Aggregate, 3% Russell 2000, 10% MSCI EAFE Net 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.

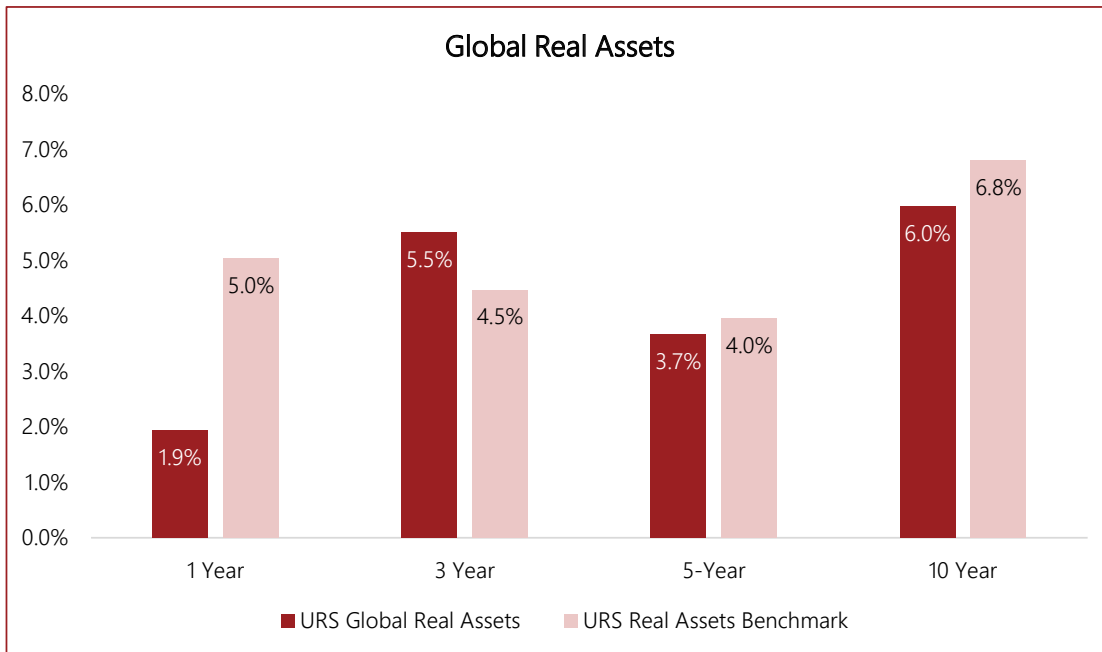


*Blended Benchmark. Current Benchmark: 10% Russell 2000, 38% S&P 500, MSCI EAFE 32%, 20% MSCI Emerging Markets, XX% MSCI EAFE

Investment Results
(Time-Weighted Return, net of Fees)

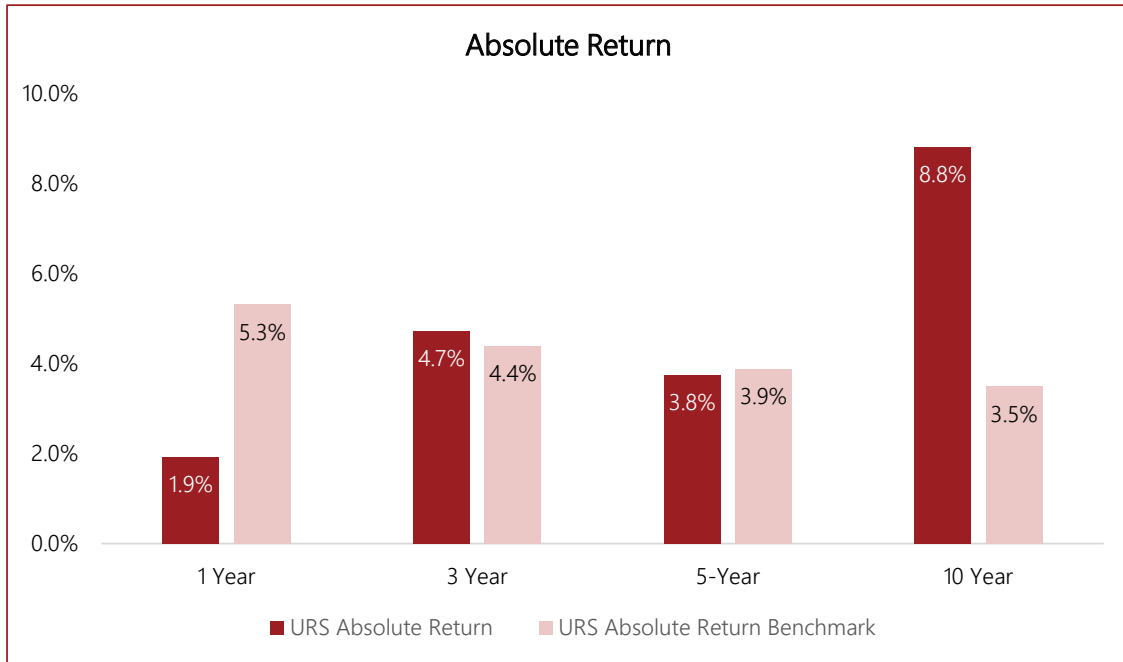


*Blended Benchmark: 40% Barclays U.S. Aggregate Bond Index, 22% CSFB High Yield Index, 11% Citigroup WGBI Index, 15% JPM EMBI Global Diversified, 6% S&P/LSTA Leveraged Loan Index, and 6% S&P European Leveraged Loan Index

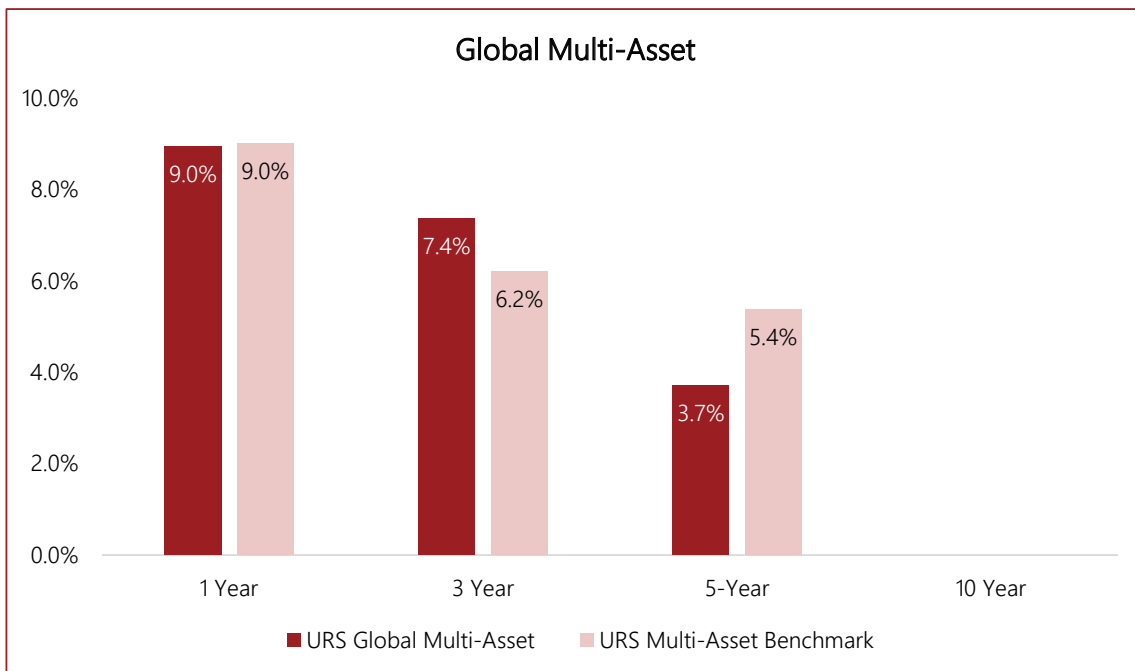


*Benchmark: 32.5% FTSE EPRA NAREIT Developed Gross Index, 32.5% NCREIF ODCE Index, 17.5% DJ UBS Commodity Index, 17.5% Barclay's U.S. – TIPS index

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
62,562	Udr Inc	\$2,243,615	\$2,808,408	0.15%
32,979	Welltower Inc	2,025,301	2,688,778	0.15%
36,232	Intertek Group Plc	720,932	2,537,108	0.14%
31,260	Prologis Inc	1,925,351	2,503,926	0.14%
21,471	Coloplast A/S	510,044	2,430,148	0.13%
8,183	Roche Holding Ag	1,634,113	2,305,088	0.13%
9,549	Public Storage	2,161,820	2,274,285	0.13%
25,221	Vestas Wind Systems A/S	684,653	2,181,921	0.12%
89,672	Compass Group Plc	843,012	2,153,549	0.12%
304,363	Rightmove Plc	<u>677,145</u>	<u>2,071,229</u>	<u>0.11%</u>
Total		<u>\$13,425,986</u>	<u>\$23,954,440</u>	<u>1.32%</u>

*Full disclosure of holdings is available upon request.

Ten Largest Fixed Income Holdings*				
Par Value (in local values)	Description	Cost	Fair Value	% of Total Portfolio
8,320,000	U.S. Treasury Bond 2.500% 05/15/2046 DD 05/15/16	\$7,425,776	\$8,271,910	0.46%
7,555,000	U.S. Treasury Note Var RT 04/30/2021 DD 04/30/19	7,553,833	7,548,956	0.42%
6,215,000	Federal Home LN BK Cons BD Var RT 01/04/2021 DD 01/02/19	6,215,000	6,206,361	0.34%
5,580,624	FNMA GTD REMIC P/T 15-79 ZA 3.000% 11/25/2045 DD 10/01/15	5,333,621	5,517,842	0.30%
3,800,000	U.S. Treasury Bond 2.875% 08/15/2045 DD 08/15/15	3,648,967	4,061,402	0.22%
3,150,000	U.S. Treasury Bond 3.000% 02/15/2049 DD 02/15/19	3,206,653	3,459,582	0.19%
2,755,000	U.S. Treasury Bond 3.375% 11/15/2048 DD 11/15/18	2,879,642	3,243,048	0.18%
3,015,000	U.S. Treasury Note 2.625% 02/15/2029 DD 02/15/19	3,014,333	3,179,408	0.18%
2,070,000	U.S. Treasury Bond 6.250% 05/15/2030 DD 11/15/99	2,813,799	2,920,480	0.16%
2,780,000	TWDC Enterprises 18 Corp Var RT 03/04/2022 DD 03/06/17	<u>2,799,263</u>	<u>2,791,509</u>	<u>0.15%</u>
Total		<u>\$44,890,887</u>	<u>\$47,200,498</u>	<u>2.60%</u>

*Full disclosure of holdings is available upon request.

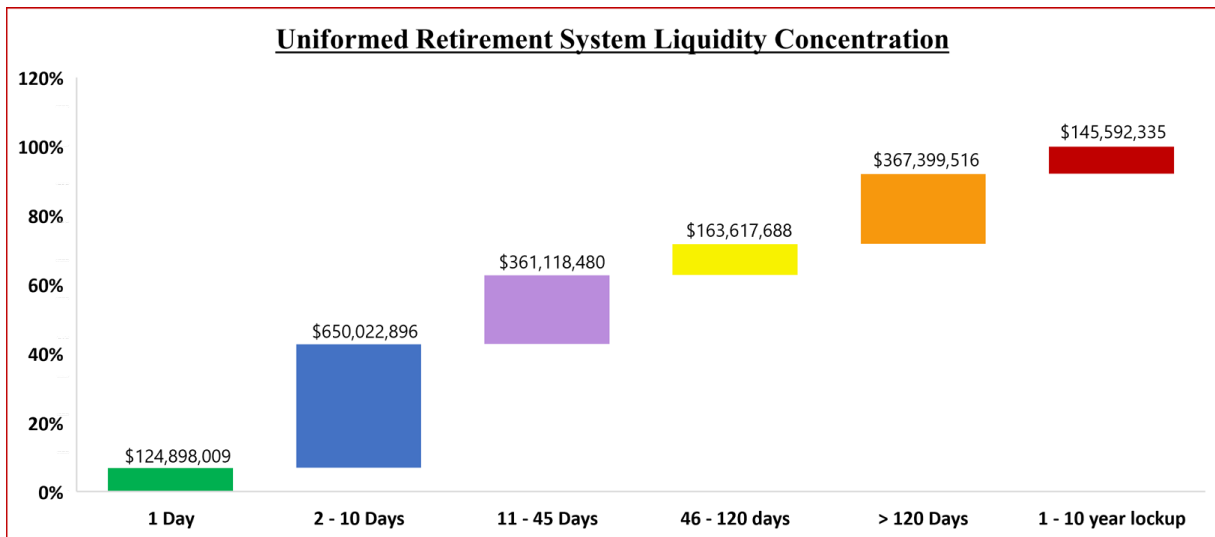
Schedule of Brokerage Commissions					
For Year Ended June 30, 2019					
Broker Name	Base Volume	Total Shares	Base Commission	Commission Percentage	
SUNTRUST CAPITAL MARKETS INC, NEW YORK	\$337,346	19,780	\$676	0.20%	
GUGGENHEIM CAPITAL MARKETS LLC, NEW YORK	23,026	2,090	42	0.18%	
J.P. MORGAN SECURITIES, HONG KONG	1,789,854	314,888	2,924	0.16%	
BTIG LLC, NEW YORK	266,677	13,080	435	0.16%	
KEEFE BRUYETTE + WOODS INC, NEW YORK	48,936	1,800	77	0.16%	
SVENSKA HANDELSBANKEN, STOCKHOLM	49,789	418	75	0.15%	
CITIGROUP GLOBAL MARKETS U.K., LONDON	43,949	3,269	66	0.15%	
CITIBANK LTD, MELBOURNE	453,407	81,924	681	0.15%	
J P MORGAN SEC, SYDNEY	468,180	121,230	703	0.15%	
DEUTSCHE MORGAN GRENFELL SEC, SYDNEY	22,185	5,418	33	0.15%	
PERSHING SECURITIES LTD, LONDON	364,735	138,677	547	0.15%	
UBS AG LONDON BRANCH, LONDON	36,605	525	55	0.15%	
J.P MORGAN SECURITIES INC, NEW YORK	951,620	43,170	1,358	0.14%	
WELLS FARGO SECURITIES, LLC, NEW YORK	35,169	1,400	49	0.14%	
CLSA AUSTRALIA PTY LTD, SYDNEY	758,116	170,339	1,041	0.14%	
KAS BANK NV, AMSTERDAM	359,780	14,172	486	0.14%	
CANTOR FITZGERALD & CO INC, NEW YORK	325,468	16,389	438	0.13%	
RAYMOND JAMES & ASSOC INC, ST PETERSBURG	26,574	1,733	35	0.13%	
MORGAN STANLEY & CO INC, NY	2,619,755	37,553	3,386	0.13%	
CITIGROUP GBL MKTS/SALOMON, NEW YORK	2,201,183	246,296	2,771	0.13%	
MACQUARIE BANK LTD, HONG KONG	2,541,593	391,789	3,180	0.13%	
DAIWA SECS AMER INC, NEW YORK	1,581,740	215,259	1,976	0.12%	
BARCLAYS CAPITAL, LONDON (BARCGB33)	119,219	17,513	148	0.12%	
STEPHENS INC, LITTLE ROCK	36,425	1,100	44	0.12%	
MERRILL LYNCH PIERCE FENNER, WILMINGTON	40,042	11,444	48	0.12%	
BANCO ITAU, SAO PAULO	116,867	37,217	140	0.12%	
DEUTSCHE BK SECS INC, NY (NWSCUS33)	1,028,455	45,771	1,233	0.12%	
JPMORGAN SECURITIES INC, NEW YORK	176,089	36,125	202	0.11%	
BERENBERG GOSSLER & CIE, HAMBURG	814,223	61,535	911	0.11%	
CREDIT LYONNAIS SECS (ASIA), HONG KONG	1,013,037	323,117	1,123	0.11%	
CITIGROUP GLOBAL MARKETS, INC., NEW YORK	86,834	2,540	95	0.11%	
JANNEY MONTGOMERY SCOTT, PHILADELPHIA	71,829	1,920	77	0.11%	
BARCLAYS CAPITAL INC./LE, NEW JERSEY	565,718	27,633	603	0.11%	
SG SEC (LONDON) LTD, LONDON	636,241	9,706	673	0.11%	
CREDIT SUISSE, NEW YORK (CSUS)	2,938,238	230,539	3,095	0.11%	
UBS WARBURG ASIA LTD, HONG KONG	2,689,365	549,044	2,764	0.10%	
KEYBANC CAPITAL MARKETS INC, NEW YORK	15,099	380	15	0.10%	
STANDARD BANK, LONDON	39,736	5,772	40	0.10%	
LIBERUM CAPITAL INC, NEW YORK	1,693	510	2	0.10%	
LIQUIDNET ASIA LTD, HONG KONG	648,455	168,074	639	0.10%	
BNP PARIBAS SECS SERVS, SYDNEY	180,605	56,683	170	0.09%	
MACQUARIE BANK LIMITED, SYDNEY	1,007,995	279,194	942	0.09%	
GOLDMAN SACHS INTL, LONDON (GSILGB2X)	864,694	104,893	777	0.09%	
MERRILL LYNCH INTL LONDON EQUITIES	4,663,153	685,535	4,168	0.09%	
ROYAL BANK OF CANADA EUROPE LTD, LONDON	434,969	22,868	380	0.09%	
CREDIT LYONNAIS SECS, SINGAPORE	472,974	90,737	398	0.08%	
SOCIETE GENERALE LONDON BRANCH, LONDON	5,023,699	484,161	4,203	0.08%	
KEPLER EQUITIES, PARIS	316,372	17,379	258	0.08%	
CITIGROUP GBL MKTS INC, NEW YORK	526,335	13,994	429	0.08%	
CREDIT SUISSE (EUROPE), SEOUL	517,171	8,188	414	0.08%	
Other Brokers	157,091,554	6,414,671	89,939	0.06%	
Total	\$197,442,773	11,549,442	\$134,963	0.07%	

Schedule of Management Fees by Asset Class		
For Year Ended June 30, 2019		
Asset Class	Fair Value	Management Fees
Absolute Return	\$306,378,314	\$5,642,292
Global Equity	459,399,779	3,762,975
Global Fixed Income	493,593,682	2,363,248
Global Multi-Asset	222,481,243	979,488
Global Real Assets	205,897,897	1,690,385
Short Term and Others	<u>124,898,009</u>	<u>280,306</u>
Total	<u>\$1,812,648,924</u>	<u>\$14,718,694</u>

Investment Summary				
(Based on Capital Allocation)				
	As of June 30, 2019		As of June 30, 2018	
	Fair Value	% Fair Value	Fair Value	% Fair Value
Absolute Return	\$306,378,314	16.90%	\$298,957,296	17.00%
Global Equity	459,399,779	25.40%	463,881,706	26.30%
Global Fixed Income	493,593,682	27.10%	436,083,788	24.80%
Global Multi-Asset	222,481,243	12.30%	223,240,286	12.70%
Global Real Assets	205,897,897	11.40%	206,857,519	11.80%
Short Term and Others	<u>124,898,009</u>	<u>6.90%</u>	<u>130,030,064</u>	<u>7.40%</u>
Total	<u>\$1,812,648,924</u>	<u>100.00%</u>	<u>\$1,759,050,659</u>	<u>100.00%</u>

Liquidity Snap Shot on June 30, 2019

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.



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October 15, 2019

Fairfax County Uniformed
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, 2019. 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) 2019 contribution was developed in the 2017 valuation report and was based on a corridor level of 99%.

Assumptions

The actuarial assumptions used in performing the June 30, 2019 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 2019 actuarial valuation, Cheiron prepared the Analysis of Financial Experience, Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls and Liability by Type 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, 2019.

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

This section and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices, and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board, as well as applicable laws and regulations. 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
Consulting Actuary



Summary of Valuation Results

The Actuarially Determined Contribution rate for Fiscal Year (FY) 2019 was developed in the 2017 valuation report and was based on a corridor floor of 99%. 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 2019 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 Fiscal Year (FY) 2020. The FY 2019 contribution was based on a corridor level of 99%.

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

Annual 15-year closed amortization bases are now being established to calculate the contribution rate.

Long-Term Assumptions Used to Determine System Costs and Liabilities

**Demographic Assumptions
Healthy Mortality**

Annual Deaths Per 10,000 Members Mortality Projected to 2019		
Age	Male	Female
20	4	2
25	5	2
30	5	2
35	6	3
40	7	4
45	11	7
50	45	27
55	63	36
60	85	54
65	123	83
70	189	132
75	305	216
80	514	365
85	896	646
90	1,591	1,167
95	2,521	1,935
100	3,578	2,870

* 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 2019		
Age	Male	Female
45	172	104
50	206	134
55	233	168
60	265	203
65	321	247
70	412	333
75	561	487
80	801	735

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. 5% of all service-connected disabilities are at the 90% severe level.

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

Years 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.

Retirement/DROP

Years of Service	Retirement/DROP*
5-24	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 30¹
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
2010	(\$52,003,538)	\$5,509,116	(\$46,494,422)	\$-	(\$46,494,422)
2011	17,409,148	(13,747,922)	3,661,226	(2,808,343)	852,883
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)
2019	(22,760,419)	7,935,310	(14,825,109)	-	(14,825,109)

¹ Schedule comes from the Actuarial Valuation as of June 30, 2019.

Schedule of Retirees and Beneficiaries
Added To and Removed From Rolls²

Year Ended June 30	Added to Rolls		Removed From Rolls		On Rolls @ Yr. End		% Increase	Average
	No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		
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
2019	67	6,410,298	19	867,159	1,402	93,865,369	6.28%	66,951

² 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.

Schedule of Funded Liabilities by Type¹

Aggregate Accrued Liabilities For							
Valuation Date	(1)	(2)	(3)	(1)	(2)	(3)	
June 30	Active Member Contributions	Retirees, Vested Terms, Beneficiaries & DROP	Active Members (County Financed Portion)	Reported Assets	Portion of Accrued Liabilities by Reported Assets		
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%
2019	169,786,637	1,156,254,071	883,389,088	1,859,253,613	100%	100%	60%

¹Schedule 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 Funding Progress

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
June 30	(a)	(b)	(b) - (a)	(a) / (b)	(c)	[(b) - (a)] / (c)
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%
2019	1,859,253,613	2,209,429,796	350,176,183	84%	179,819,293	195%

Schedule of Active Member Valuation Data

Valuation Date June 30	Number of Active Members ¹	Covered Payroll	Average Annual Salary	Percentage Increase in Average Pay
2010	1,887	\$146,776,955	\$77,783	
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%
2019	1,939	179,819,293	92,738	1.45%

¹Excludes DROP participants.

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 position, 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

Fiscal Year	Plan Member Contributions	Employer Contributions	Employer Contributions % of Covered Payroll	Net Investment Income (Loss)	Total Additions
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
2019	12,605,683	69,246,070	38.84%	78,141,806	159,993,559

Schedule of Deductions by Type

Fiscal Year	Benefit Payments	Refunds of Contributions	Administrative Expenses	Total Deductions
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
2019	104,632,253	911,127	620,136	106,163,516

Schedule of Benefit Payments by Type

Fiscal Year	Service Annuity	Service-Connected Disability	Ordinary Disability	Survivor Benefit	Total
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
2019	95,256,500	7,714,880	350,227	1,310,646	104,632,253

Schedule of Retired Members by Benefit Type

Fiscal Year	Service Annuity	Service-Connected Disability	Disability	Survivor Benefit	Total
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
2019	1,194	157	18	33	1,402

Schedule of Average Monthly Benefit Amounts

Fiscal Year	Service Annuity	Service-Connected Disability	Ordinary Disability	Survivor Benefit	Average
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
2019	5,892	4,133	1,621	2,935	5,571

Schedule of Average Benefit Payments							
Years of Credited Service *							
	2-4	5-9	10-14	15-19	20-24	25-29	30+
<u>Period 7/1/2008 to 6/30/2009</u>							
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
<u>Period 7/1/2009 to 6/30/2010</u>							
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
<u>Period 7/1/2010 to 6/30/2011</u>							
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
<u>Period 7/1/2011 to 6/30/2012</u>							
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
<u>Period 7/1/2012 to 6/30/2013</u>							
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
<u>Period 7/1/2013 to 6/30/2014</u>							
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
<u>Period 7/1/2014 to 6/30/2015</u>							
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
<u>Period 7/1/2015 to 12/31/2015</u>							
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
<u>Period 1/1/2016 to 12/31/2016</u>							
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
<u>Period 1/1/2017 to 12/31/2017</u>							
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
<u>Period 1/1/2018 to 12/31/2018</u>							
Average Monthly Benefit **	-	1,211	1,780	3,120	3,874	6,316	9,192
Average of Final Monthly Salaries	-	7,607	6,389	7,263	7,845	9,835	11,047
Number of Retirees	-	4	3	3	10	33	9

*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	29	49	-	-	-	-	-	-	78
25 to 29	28	155	44	1	-	-	-	-	228
30 to 34	13	141	96	83	-	-	-	-	333
35 to 39	4	58	66	168	55	-	-	-	351
40 to 44	1	17	22	97	127	44	1	-	309
45 to 49	-	11	9	58	102	127	28	1	336
50 to 54	3	7	9	31	42	75	32	18	217
55 to 59	2	4	3	13	11	20	9	11	73
60 to 64	-	1	-	2	-	4	1	2	10
65 & up	-	-	-	1	2	1	-	-	4
Total	80	443	249	454	339	271	71	32	1,939

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	\$1,504,247	\$3,044,251	\$-	\$-	\$-	\$-	\$-	\$-	\$4,548,498
25 to 29	1,458,639	10,153,007	3,268,839	72,519	-	-	-	-	14,953,004
30 to 34	681,328	9,576,674	7,625,648	6,970,922	-	-	-	-	24,854,572
35 to 39	202,564	3,789,272	5,140,288	14,785,992	5,438,303	-	-	-	29,356,419
40 to 44	10,869	1,089,161	1,648,931	8,312,464	12,920,547	5,109,898	93,381	-	29,185,251
45 to 49	-	730,376	738,950	5,138,577	10,317,268	14,626,270	3,748,650	145,538	35,445,629
50 to 54	304,535	421,199	698,761	2,676,039	3,978,461	8,291,890	4,145,398	2,394,430	22,910,713
55 to 59	93,377	284,008	244,494	1,076,350	969,788	2,192,791	1,162,222	1,289,499	7,312,529
60 to 64	-	71,116	-	157,595	-	427,544	90,148	282,116	1,028,519
65 & up	-	-	-	96,055	155,756	101,544	-	-	353,355
Total	\$4,255,559	\$29,159,064	\$19,365,911	\$39,286,513	\$33,780,123	\$30,749,937	\$9,239,799	\$4,111,583	\$169,948,489

Retirees By Location

Retirees by State	
State	% of Total
Virginia	70.36%
Florida	7.19%
Maryland	6.64%
North Carolina	4.66%
South Carolina	3.87%
West Virginia	2.61%
Pennsylvania	2.06%
Delaware	0.95%
Georgia	0.95%
Tennessee	0.71%

Retirees in Virginia	
	% of Total
Other Counties	86.59%
Fairfax County	<u>13.41%</u>
Total	<u>100.00%</u>

Retirees by Fairfax County/City	
City	% of Total
Alexandria	2.09%
Centreville	2.01%
Springfield	1.79%
Herndon	1.27%
Fairfax	1.12%
Chantilly	0.75%
Falls Church	0.67%
Lorton	0.67%
Annandale	0.52%
Clifton	0.52%
Fairfax Station	0.52%
Burke	0.45%
Vienna	0.37%
Reston	0.30%
Great Falls	0.15%
Oakton	0.15%
McLean	0.07%

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Check out Fairfax County Retirement Systems video library at: www.fairfaxcounty.gov/retirement/retirement-videos

New Employee – “Understanding Your Retirement System” for those after July 1, 2019.

New Public Safety Employees – “Understanding Your Retirement System” for Police Officers and Uniformed employees hired after July 1, 2019.

How to Use the Online Retirement Benefit Estimator – This video helps members walk through the process of creating their own Retirement Benefit Estimates.

Eligibility Service vs. Benefit Service – What’s the difference between Eligibility Service and Benefit Service?

Unused Sick Leave and Retirement – How does unused sick leave benefit my retirement? Review the Unused Sick Leave video to find out the three ways sick leave can increase your retirement benefit.

Part Time School Employee – A large portion of our school employees work part time. Review the Part Time Employee video to find out more about how part time employment impacts your retirement.

Joint & Last Survivor Option – (Joint & Contingent Spouse and Handicapped Child Option) Can I leave my spouse my benefit if I die before them in retirement?

What is DROP? – This brief video helps members understand what DROP means and how it works.

DROP Counseling – Group counseling session, covering the Deferred Retirement Option Program (DROP), including information about how DROP works, eligibility, and benefits.

Plan Basics – “Your Retirement System” for those hired PRIOR to July 1, 2019.



Fairfax County Retirement Systems
12015 Lee Jackson Memorial Highway, Suite 350
Fairfax, VA 22033
703.279.8200
www.fairfaxcounty.gov/retirement

