FAIRFAX COUNTY
Retirement
SYSTEMS
POLICE Officers

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

A Pension Trust Fund of Fairfax County, Virginia

COMPREHENSIVE ANNUAL FINANCIAL REPORT
FOR THE FISCAL YEAR ENDED JUNE 30, 2020

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 Police Officers 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 13, 2020

Dear Members of the Board of Trustees:

I am pleased to submit to you the Comprehensive Annual Financial Report (CAFR) of the Fairfax County Police Officers Retirement System (System) for the fiscal year ended June 30, 2020. This CAFR is provided as an aid to understanding the structure and evaluating the status of the System. The System's management is responsible for the accuracy of financial information contained herein. The Management's Discussion and Analysis provides further detail to the financial statements.

History

The Fairfax County Police Officers Retirement System was created under authority granted by Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia) on March 29, 1944, to provide defined benefit pension plan coverage for sworn full-time law enforcement officers of the Fairfax County Police Department. In 1981 Fairfax County enacted Article 7 of the Fairfax County Code, which adopted and continued Chapter 303 as amended. There were 1,353 active members, 74 in the Deferred Retirement Option Program (DROP), 70 terminated vested members and 1,202 retirees participating in the System as of June 30, 2020. For calculations surrounding the Total Pension Liability and its components, Cheiron, the System's actuary, used June 30, 2020, 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 2020, the System's investment returns were impacted by significant volatility in the markets due to the novel coronavirus (COVID-19) pandemic. The System's portfolio investment return for the year was -2.85 percent (-3.87 percent, net of fees), dipping below the long term return target of 7.25 percent. This return placed in the 97th percentile of the BNY Mellon Universe of public funds. Over the long term, returns compared less favorably, with investment returns for the ten-year period were 7.43 percent per year, ranking the fund in the 84th 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
EMPLOYEES' POLICE Officers UNIFORMED

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 (Board) 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 to the Financial Section of this report for a description of this standard of care and details on the System's investment policies and strategies.

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

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

Funded Status

An actuarial valuation of the System to determine funding requirements is performed annually. The System's funding policy provides for periodic employer contributions at actuarially determined rates, which are calculated as a percentage of covered payroll, and are adjusted as necessary to accumulate sufficient assets to meet the costs of benefit payments when due. As of the latest annual valuation, performed as of June 30, 2020, the ratio of the market value of assets to total pension liabilities for benefits decreased from 83.33 percent to 75.64 percent. The actuarial section contains further information on the results of the June 30, 2020, valuation.

Based on the June 30, 2018, actuarial valuation, the employer contribution rate for 2020 following the adopted corridor-based funding policy rose to 41.60%. 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.

Major Initiatives

As a result of the COVID-19 pandemic, beginning in March of 2020, staff successfully implemented a temporary transition to teleworking. Of the 191 unique interactions and transactions handled by staff in the course of daily operations, virtually all can be and have been completed with staff working remotely. This includes:

- Retirement counseling
- Monthly retiree benefits payments
- Investment portfolio management
- Investment-related transactions
- Investment manager screening and due diligence
- Actuarial valuations and data analysis
- Processing and reconciliation of financial transactions
- Preparation of annual financial reports

Along with this major transition, staff accelerated and completed the rollout of a number of new methods for serving members. These include delivering training virtually, making all forms PDF-fillable, and creating a range of online how-to videos.

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 C.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to The Fairfax County Police Officers Retirement System for its CAFR for the fiscal year ended June 30, 2019. This was the tenth 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 CAFR 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 Funding and Administration for the fiscal year ended June 30, 2020, from the Public Pension Coordinating Council (PPCC), in recognition of meeting the professional standards for plan funding as set forth in the Public Pensions Standards. The PPCC is a confederation of the National Association of the State Retirement Administrators, the National Conference on Public Employee Retirement Systems and the National Council on Teacher Retirement.

Other Information

Independent Audit and Actuarial Certifications

Cherry Bekaert LLP performed an annual audit of the financial statements of the System to obtain reasonable assurance about whether the financial statements are free from material misstatements, whether due to fraud or error. Additionally, Cheiron performed an annual actuarial valuation to assess the plan's ability to meet future obligations. The 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 Police Officers 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.

As always, 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. This year, however, I am particularly appreciative of their flexibility and diligence in adapting to a significant change in how we do business. That, along with the support of County technology and administrative resources, allowed us to continue to serve our members during the COVID-19 pandemic.

Finally, I must express my deep appreciation, on behalf of the 2,699 members and beneficiaries of the Police Officers 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 Police Officers Retirement System
Virginia

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

Christopher P. Morrill

Executive Director/CEO

Public Pension Coordinating Council

Recognition Award for Funding
2020

Presented to

Fairfax County Police Officers Retirement System

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

Presented by the Public Pension Coordinating Council, a confederation of

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

Alan H. Winkle
Program Administrator

Board of Trustees

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

Edward C. O'Carroll - *President*
Elected Member Trustee
Term Expires: December 31, 2020

Rich Barron- *V.P. & Secretary*
Elected Member Trustee
Term Expires: December 31, 2022

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

James E. Bitner
Board of Supervisors Appointee
Term Expires: June 30, 2022

James R. Dooley, Jr.
Elected Retired Member Trustee
Term Expires: June 30, 2022

Brendan D. Harold
Board of Supervisors Appointee
Term Expires: December 31, 2022

Jay A. Jupiter
Board of Supervisors Appointee
Term Expires: December 31, 2021

Administrative Staff

Jeffrey K. Weiler
Executive Director

Katherine Molnar, CFA
Chief Investment Officer

Investment Managers

Acadian Asset Management
Boston, MA

AlphaSimplex Group, LLC
Cambridge, MA

AQR Capital Management, LLC
Greenwich, CT

Aspect Capital Ltd
London, UK

BlackRock, Inc
San Francisco, CA

Bridgewater Associates, LP
Westport, CT

Cohen & Steers Capital Management, Inc
New York, NY

Crabel Capital Management, LLC
Los Angeles, CA

Crestline Management, LP
Fort Worth, TX

Czech Asset Management, LP
Old Greenwich, CT

DGV Solutions, LP
Minneapolis, MN

DoubleLine Capital, LP
Los Angeles, CA

DWS
Chicago, IL

EJF Capital, LLC
Arlington, VA

First Eagle Investment Management
New York, NY

King Street Capital Management, LP
New York, NY

Kirkoswald Asset Management, LLC
New York, NY

Landmark Partners
Simsbury, CT

Loomis, Sayles & Company, LP
Boston, MA

Man Asset Management Ltd
London, UK

Investment Managers

Marathon Asset Management, LP
New York, NY

Maverick Fundamental Quant Neutral, L.P.
New York, NY

Morgan Creek Capital Management, LLP
Chapel Hill, NC

Neuberger Berman Group, LLC
New York, NY

Parametric Portfolio Associates, LLC
Minneapolis, MN

Prudential Global Investment Management
Newark, NJ

PIMCO
Newport Beach, CA

Sands Capital Management, LLC
Arlington, VA

Solus Alternative Asset Management
New York, NY

Standish Mellon Asset Management Company, LLC
Pittsburgh, PA

Starboard Value, LP
New York, NY

Two Sigma
New York, NY

WCM Investment Management
Laguna Beach, CA

Professional Services

Actuary
Cheiron
Actuaries
McLean, VA

Independent Auditor
Cherry Bekaert LLP
Certified Public Accountants
Tysons Corner, VA

Custodian Bank
BNY Mellon Asset Servicing
Pittsburgh, PA

Legal Counsel
Morgan, Lewis & Bockius, LLP
Washington, DC

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

Organization Chart

Board of Supervisors
Kathy L. Smith, Penelope A. Gross, Dalia A. Palchik, James R. Walkinshaw
Walter L. Alcorn, Pat Herrity, Jeffrey C. McKay, John W. Foust, Rodney L. Lusk
Daniel G. Storck

Board of Trustees
(Seven Members – see page 7)
Richard A. Barron, James E. Bitner,
James R. Dooley, Jr., Brendan D. Harold, Jay A. Jupiter,
Edward C. O'Carroll, Christopher J. Pietsch

Executive Director
Jeff Weiler

Investment Analyst
Anthony Vu

Chief Investment Officer
Katherine Molnar, CFA

Investment Operations Manager
Jennifer Snyder

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

Cherry Bekaert LLP
CPAs & Advisors

Report of Independent Auditor

To the Board of Supervisors
County of Fairfax, Virginia

To the Board of Trustees
Fairfax County Police Officers' Retirement System

Report on the Financial Statements

We have audited the accompanying financial statements of the Fairfax County Police Officers' Retirement System (the "System"), a pension trust fund of the County of Fairfax, Virginia, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which comprise collectively 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, 2020, 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.

Emphasis of Matter

During 2020, an outbreak of a novel coronavirus ("COVID-19") emerged globally. The United States and the global markets experienced significant declines in value resulting from uncertainty caused by the worldwide coronavirus pandemic that could negatively impact the System's additions and operations for an indeterminable time period. Other financial impacts could occur that are unknown at this time. Our opinion is not modified with respect to this matter.

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 13, 2020, 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 13, 2020.

Cherry Bekaert LLP

Tysons Corner, Virginia
November 13, 2020

Management's Discussion and Analysis
(Unaudited)

This section presents management's discussion and analysis of the Fairfax County Police Officers Retirement System's ("System" or "Plan") financial performance and provides an overview of the financial activities for the fiscal year ended June 30, 2020. 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, 2020 and Statement of Changes in Fiduciary Net Position for the fiscal year ended June 30, 2020. 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 Financial Statements

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

Note 1	Describes significant accounting policies.
Note 2	Provides a description of the System, the funding policy, and member contributions and benefits.
Note 3	Describes investments and disclosures on fair value hierarchy, interest rate, credit quality, foreign currency risk, derivatives disclosures, and security lending.
Note 4	Describes the net pension liability, actuarial method and assumptions.
Note 5	Explains the System's tax status.

Required Supplementary Information

This section consists of historical trend exhibits such as the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Net Pension Liability, Schedule of Employer Contributions accompanied by the Notes to Schedule of Employer Contributions and Schedule of Money-Weighted Rate of Return. These schedules will be presented over 10 years as information becomes available. A Summary of Significant Changes to the Pension System is also included.

Other Supplementary Information

This section includes the Schedule of Administrative Expenses and the Schedule of Investment and Consultant Expenses.

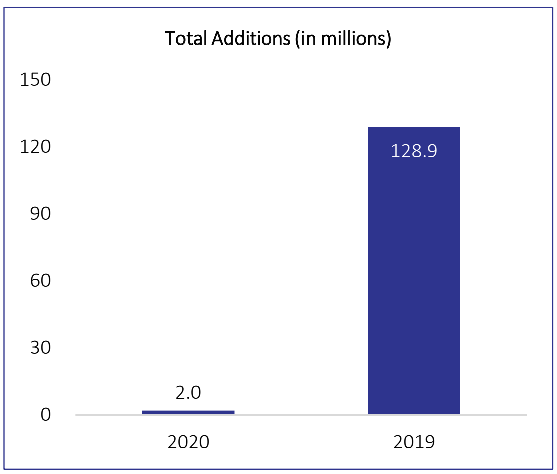
The Required Supplementary Information and Other Supplementary notes are immediately following the Notes to the Financial Statements.

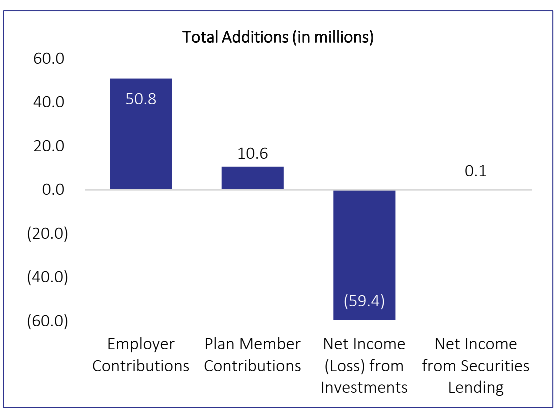
Financial Highlights

During 2020, an outbreak of a novel coronavirus (“COVID-19”) emerged globally. This pandemic, coupled with the current stock market volatility, has created an economic environment likely to have a significant accounting consequences. Financial impacts could occur that are unknown at this time.

The net position restricted for pension benefits as of June 30, 2020, and June 30, 2019, was $1,400.6 million and $1,483.7 million, respectively. The net position restricted for pension benefits representing assets available to pay for current and future member pension benefits, decreased by $83.1 million or 5.6 percent.

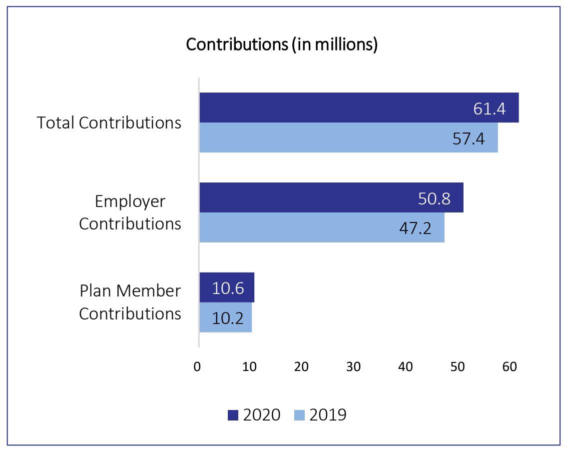
Total additions to fiduciary net position took a downturn by 98.5 percent from $128.9 million in 2019 to $2.0 million in 2020.

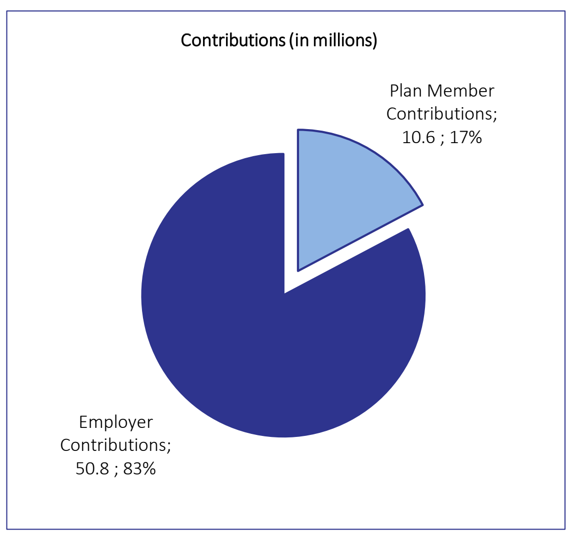




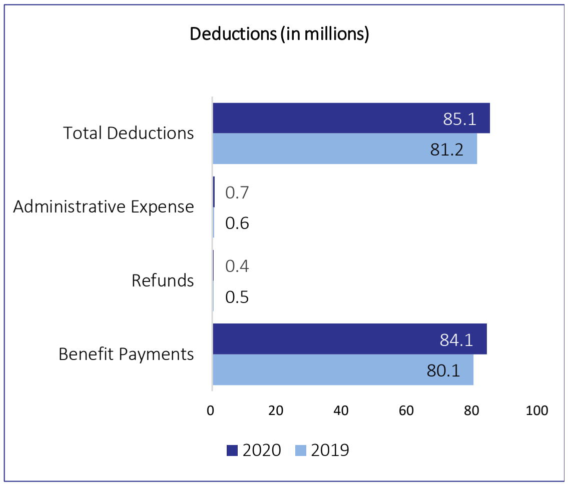
Net income from investments (excluding securities lending) decreased by 183.1 percent from $71.5 million in 2019 to -$59.4 million in 2020. The net money-weighted rate of return on investments on a fair value basis was -3.87 percent in fiscal year 2020, and has decreased from +5.02 percent in fiscal year 2019.

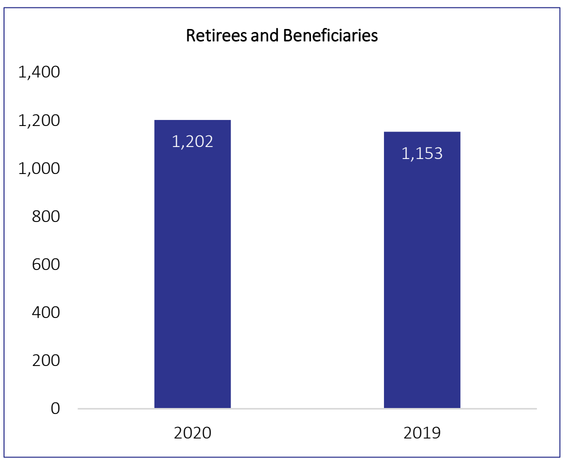
Employer and employee contributions received totaled $61.4 million, an increase of 7.0 percent or $4.0 million compared to 2019 received contributions of $57.4 million. The employer contributions increased by 7.6 percent from $47.2 million in fiscal year 2019 to $50.8 million in fiscal year 2020.





Total deductions from fiduciary net position increased by $3.9 million from $81.2 million in 2019 to $85.1 million in 2020. Member retirement benefit payments of $84.1 million in 2020 make up the majority of total deduction and increased by $4.0 million or 5.0 percent from $80.1 million in 2019. The number of retired members and beneficiaries receiving a benefit payment increased 4.2 percent from 1,153 to 1,202 payees as of June 30, 2020.





The net pension liability as calculated per Generally Accepted Accounting Principles in the United States of Amercia (GAAP) as of June 30, 2020, and June 30, 2019, was $451.0 million and $296.7 million, respectively. The plan fiduciary net position as a percentage of total pension liability as of June 30, 2020, and June 30, 2019, was 75.64 percent and 83.33 percent, respectively. The net pension liability as a percentage of covered payroll has increased from 252.20 percent in fiscal year 2019 to 369.48 percent in fiscal year 2020. The covered payroll increased from $117.7 million in fiscal year 2019 to $122.1 million in fiscal year 2020.

	2020	**2019**
Net Pension Liability (in millions)	$451.0	$296.7
Net Position as Percentage of TPL	75.64%	83.33%
Covered Payroll (in millions)	$122.1	$117.7
Net Pension Liability as Percentage of Covered Payroll	369.48%	252.20%

Financial Analysis

Plan Fiduciary Net Position

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

For fiscal year 2020, the fiduciary net position of the Police Officers Retirement System decreased 5.6 percent, resulting in a total fiduciary net position value of $1,400.6 million, reflecting a decrease of $83.1 million over fiscal year 2019.

Total assets as of June 30, 2020, was $1,419.3 million, representing a decrease of $85.5 million, or 5.7 percent over the previous fiscal year. The main component of the decrease was due to the decline of 5.4 percent or $80.6 million of cash and investment, from $1,479.9 million in fiscal year 2019 to $1,399.3 million in fiscal year 2020 as a result of the unfavorable market conditions. Receivables decreased by $5.1 million or 42.3 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 Police Retirement System's net position for the current and prior year.

Net Position for Current and Prior Fiscal Year			
Fiscal Year	Ending Balances (millions)	Net Change in Dollars (millions)	Net Change in Percent
2020	$1,400.6	($83.1)	-5.6%
2019	1,483.7	47.8	3.3%

Summary of Plan Fiduciary Net Position

Assets	**2020**	**2019**	**Difference**	**Percentage of Change**
Total Cash and Investments	$1,399,287,924	$1,479,889,727	($80,601,803)	-5.4%
Cash Collateral, Securities Lending	13,069,006	12,860,224	208,782	1.6%
Capital Assets, net	9,586	10,512	(926)	-8.8%
Total Receivables	6,914,751	11,979,227	(5,064,476)	-42.3%
Total Assets	1,419,281,267	1,504,739,690	(85,458,423)	-5.7%
Liabilities				
Purchase of Investments	($1,833,463)	($4,902,772)	$3,069,309	-62.6%
Cash Collateral, Securities Lending	(13,069,006)	(12,860,224)	(208,782)	1.6%
Accounts Payables and Others	(3,813,867)	(3,302,373)	(511,494)	15.5%
Total Liabilities	(18,716,336)	(21,065,369)	2,349,033	-11.2%
Net Position Restricted for Pension Benefits	**$1,400,564,931**	**$1,483,674,321**	**($83,109,390)**	**-5.6%**

Summary of Additions and Deductions

Additions	**2020**	**2019**	**Difference**	**Percentage of Change**
Employer Contributions	$50,781,403	$47,182,840	$3,598,563	7.6%
Plan Member Contributions	10,570,158	10,176,811	393,347	3.9%
Net Income (Loss) from Investments	(59,410,577)	71,487,422	(130,897,999)	-183.1%
Net Income from Securities Lending	55,223	91,067	(35,844)	-39.4%
Total Additions	1,996,207	128,938,140	(126,941,933)	-98.5%
Deductions				
Benefit Payments	$84,087,797	$80,116,433	$3,971,364	5.0%
Refunds	361,855	459,698	(97,843)	-21.3%
Administrative Expense	655,945	610,711	45,234	7.4%
Total Deductions	85,105,597	81,186,842	3,918,755	4.8%
Net Increase/(Decrease)	**($83,109,390)**	**$47,751,298**	**($130,860,688)**	-274.0%

Total liabilities as of June 30, 2020, were $18.7 million, representing a decrease of $2.3 million, or 11.2 percent, over the previous year. The decrease in total liabilities was the result of a decline in purchase of investments from $4.9 million as of fiscal year 2019 to $1.8 million as of fiscal year 2020. However, there was a 77.2 percent increase in the accrued liabilities, including the year-end accrual for management fees.

	2020	2019	Difference	Percentage of Change
Accrued Liabilities (in thousands)	$3,326.6	$1,877.2	$1,449.4	77.2%

The total assets of $1,419.3 million exceeded its liabilities of $18.7 million at the close of the Plan year ended June 30, 2020 with $1,400.6 million in fiduciary net position restricted for pension benefits.

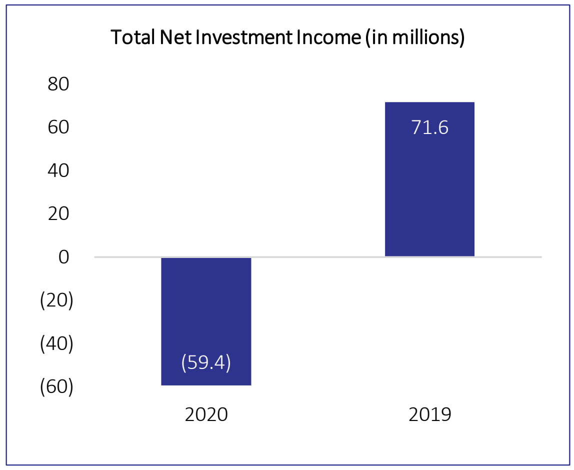
The Plan's investments are exposed to various risks including interest rate, market and credit risks. These risks may be influenced by changes in economic conditions and market conditions. Therefore, it is reasonable to assume that there will be changes in the values of the investments held in trust,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

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 $126.9 million or 98.5 percent, attributed primarily due to a huge decline in investment gains in fiscal year 2020 versus fiscal year 2019. Interest and dividend income also experienced a decrease of 17.4 percent. This net loss compared to the previous year's investment performance was due to the unfavorable and fluctuating market environment in fiscal year 2020.

Total contributions for the fiscal year ended June 30, 2020, amounted to $61.4 million. This was an increase of $4.0 million when compared with the activity of fiscal year 2019. The employer contributions for fiscal year 2020 increased by 7.6 percent which is consistent with the employer contribution rate rising from 40.10 percent to 41.60 percent of salary. Employee contributions increased by 3.9 percent due to merit and 1.6 percent COLA increase.

Investment returns had a huge downfall for fiscal year 2020, reflecting unfavorable returns in the capital markets. Total net investment income (including securities lending) declined from $71.6 million in fiscal year 2019 to a loss of -$59.4 million in fiscal year 2020 as a result of declined investment performance in a fluctuating market.

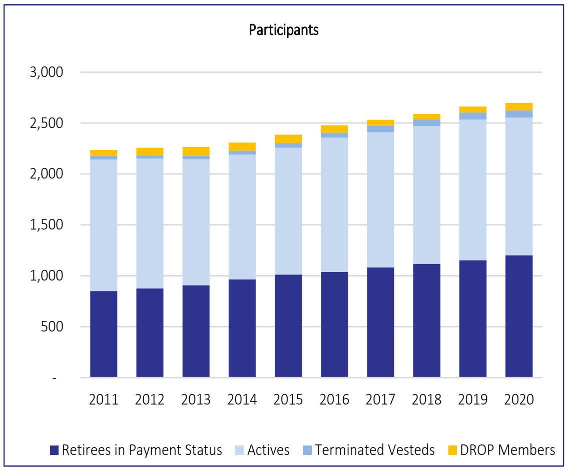


Total deductions of the System consist of the payments of benefits to retirees and beneficiaries, the refund of contributions to former members and the cost of administering the System. The total deductions for fiscal year 2020 were $85.1 million, an increase of $4.0 million, or 4.8 percent, over fiscal year 2019.

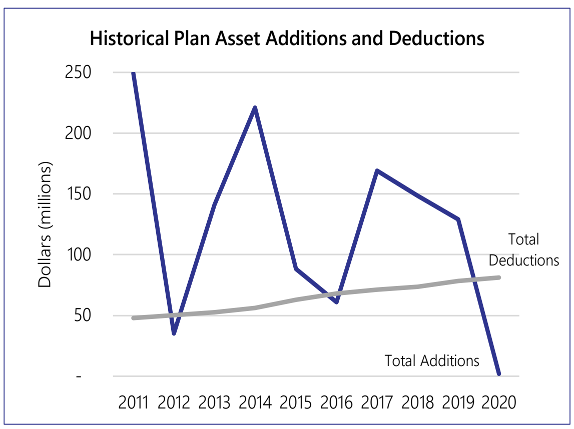
Regular pension benefit payments increased as the number of retirees and beneficiaries receiving benefit payments rose to 1,202 in fiscal year 2020 from 1,153 in fiscal year 2019. Benefit payments also increased due to a cost-of-living increase of 1.6 percent and higher average benefits for new retirees. Refunds reflected 21.3 percent decrease due to lesser employee turnover, separation of employees in the fiscal year, less employees asking for refunds or lower balances of refunded amount.

Management's Discussion and Analysis
(continued)

Participant Count	2020	2019
Actives	1,353	1,382
DROP Members	74	59
Terminated Vesteds	70	69
Retirees in Payment Status	1,202	1,153
Total	**2,699**	**2,663**



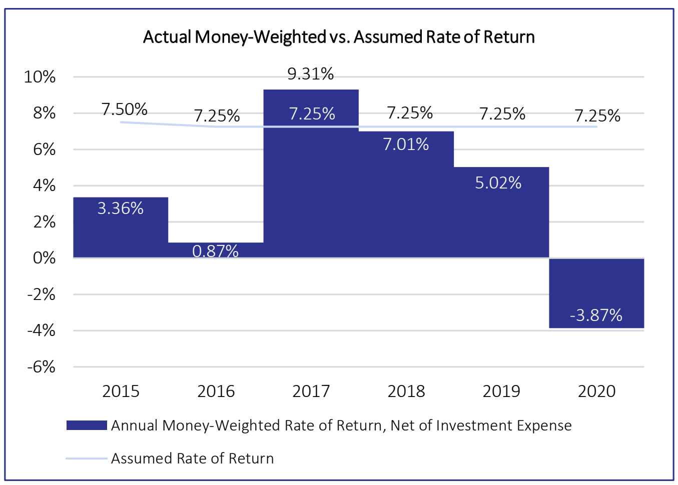
Historical additions to and deductions from fiduciary net position indicate a pattern of steadily increasing deductions as compared to fluctuating additions as a result of the unpredictable market environment.



The System utilizes two methodologies when analyzing investment returns. They may vary from each other in any given period. For GAAP 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 +5.02 percent in fiscal year 2019 to -3.87 percent in fiscal year 2020.

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 +5.07 percent to -3.87 percent in fiscal year 2020.

The annual money-weighted rate of return of -3.87 percent was below the assumed 7.25 percent rate of return, net of fees, for the year ended June 30, 2020.



An actuarial valuation is performed annually by Cheiron. The actuarial value of the assets as of the last valuation on June 30, 2020, was $1,538.1 million, while actuarial liabilities as of the same period was $1,851.6 million. As of June 30, 2020, the date of the most recent actuarial valuation, the funded ratio of the System was 83.07 percent. This was a decrease of 2.37 percent from the June 30, 2019, valuation funded ratio of 85.44 percent.

Under GAAP calculation, using the December 31, 2019, data rolled forward to June 30, 2020, the plan fiduciary net position as a percentage of the total pension liability was 75.64 percent. It decreased from 83.33 percent in fiscal year 2019, primarily as a result of the decline in the Plan Fiduciary Net Position. The Total Pension Liability as of June 30, 2020, and June 30, 2019, was $1,851.6 million and $1,780.4 million, respectively.

(Dollars in millions)	**2020**	**2019**
Actuarial Accrued Liability	$1,851.6	$1,780.4
Actuarial Value of Assets	1,538.1	1,521.2
Unfunded Actuarial Liability	$313.4	$259.2
Funding Ratio	83.07%	85.44%
Total Pension Liability	$1,851.6	$1,780.4
Plan Fiduciary Net Position	1,400.6	1,483.7
Net Pension Liability	$451.0	$296.7
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	75.64%	83.33%

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/.

Basic Financial Statements

Statement of Fiduciary Net Position

as of June 30, 2020

Assets		
Cash and Short-Term Investments		
Equity in County's Pooled Cash and Temporary Investments	$1,008,356	
Cash Collateral Received for Securities on Loan	13,069,006	
Short-Term Investments	85,450,882	
Total Cash and Short-Term Investments		$99,528,244
Capital Assets		
Building Improvements, net	4,189	
Equipment, net	5,397	
Total Capital Assets		9,586
Receivables		
Accounts Receivable	3,901,914	
Accrued Interest and Dividends	1,786,334	
Investment Proceeds and Other Receivables	1,226,503	
Total Receivables		6,914,751
Investments, at Fair Value		
Common Stock	158,491,090	
Preferred Securities	936,102	
Natural Resources	4,986,688	
Fixed Income		
Asset-Backed Securities	49,328,398	
Corporate Bonds	50,947,899	
International Bonds	1,517,949	
U.S. Government Obligations	42,370,768	
Pooled and Mutual Funds	1,004,249,792	
Total Investments		1,312,828,686
Total Assets		1,419,281,267
Current Liabilities		
Investment Purchases and Other Liabilities	1,833,463	
Cash Collateral Received for Securities on Loan	13,069,006	
Accounts Payable and Accrued Expenses	3,742,058	
Compensated Absences, Short-Term	25,600	
Noncurrent Liabilities		
Compensated Absences, Long-Term	46,209	
Total Liabilities		(18,716,336)
Net Position Restricted for Pension Benefits		**$1,400,564,931**

See accompanying notes to financial statements.

Statement of Changes in Fiduciary Net Position

For the Year Ended June 30, 2020

Additions		
Contributions		
Employer	$50,781,403	
Plan Members	10,570,158	
Total Contributions		$61,351,561
Investment Income from Investment Activities		
Net Appreciation (Depreciation) in Fair Value of Investments	(52,388,584)	
Interest	8,403,657	
Dividends	3,000,944	
Total Investment Income(Loss)	(40,983,983)	
Investment Activity Expense		
Management Fees	(17,525,402)	
Custodial Fees	(74,087)	
Consulting Fees	(26,418)	
Allocated Administration Expense	(800,687)	
Total Investment Expense	(18,426,594)	
Net Income(Loss) from Investment Activities		(59,410,577)
Securities Lending Activities		
Total Securities Lending Income	280,858	
Total Securities Lending Expense	(225,635)	
Net Income from Securities Lending Activities		55,223
Total Net Investment Income(Loss)		(59,355,354)
Total Additions		$1,996,207
Deductions		
Annuity Benefits	77,451,380	
Disability Benefits	1,456,544	
Survivor Benefits	5,179,873	
Refunds of Employee Contributions	361,855	
Administrative Expense	655,945	
Total Deductions		85,105,597
Net Increase(Decrease)		(83,109,390)
Net Position Restricted for Pension Benefits		
Beginning of Fiscal Year		1,483,674,321
End of Fiscal Year		**$1,400,564,931**

See accompanying notes to financial statements.

Notes on Financial Statements

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

Note 1. Summary of Significant Accounting Policies

A. Basis of Accounting

The System's basic financial statements have been prepared under the accrual basis of accounting in accordance with accounting principles applicable to governmental units in the United States of America (GAAP). 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 GAAP. 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 fair value when published market prices and quotations are available, or at a cost plus accrued interest, which approximates market or fair value. All other investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Asset-backed securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. Because of the inherent uncertainty in valuing these securities, the fair value may differ from the values that would have been used had a ready market for such securities existed. Accordingly, the realized value received upon the sale of the assets may differ from the fair value. The System records investment purchases and sales as of trade date. These transactions are not finalized until the settlement date, which occurs approximately three business days after the trade date. The amounts of trade receivables and payables are shown as receivables and payables on the Statement of Fiduciary Net Position. Cash received as collateral on securities lending transactions and investments made with such cash are reported as assets along with a related liability for collateral received. The 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, 2020, 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, market and credit risks. Such risks, and the resulting investment security values, may be influenced by changes in economic conditions and market perceptions and expectations. Accordingly, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

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 2020 Beginning Balance	$56,845
Leave Earned	35,888
Leave Used	20,925
FY 2020 Ending Balance	$71,809
Due Within One Year	$25,600

Note 2. Summary of Plan Provisions

A. Plan Description and Provision

The Police Officers 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 Police Officers Retirement System are as follows:

Membership.

The plan covers County police officers who are not covered by other plans of the County or the Virginia Retirement System. Members sworn before January 1, 2013, are members of Plan A. Members sworn on January 1, 2013, or between January 1, 2013, and July 1, 2019, are members of Plan B. Members sworn on or after July 1, 2019, are members of Plan C.

Contribution Rate.

The member contribution rate is set by the County Ordinance and is currently 8.65 percent of base salary. The County contribution rate is set by the actuarial process and was 41.60 percent for fiscal year 2020. Police Officers do not participate in Social Security.

Normal Retirement.

To be eligible for normal retirement, an individual must meet the following criteria: (a) if employed before July 1, 1981; attained the age of 55 or completed 20 years of service, or (b) if employed on or after July 1, 1981; attained the age of 55 or completed 25 years of service.

The normal retirement benefit for Plans A and B is 2.8 percent of average final compensation (i.e., the highest consecutive three years) multiplied by creditable service at date of termination, and increased by 3 percent. Plan C calculation of normal benefit does not include the additional 3 percent.

Early Retirement.

A member is eligible for early retirement if under the age of 55 within at least 20 years of creditable service. This is the normal retirement benefit calculated using average final compensation and service at early retirement, actuarially reduced, and increased by 3 percent.

Deferred Retirement Option Program (DROP).

Those eligible for normal retirement may enter DROP for a period of 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 service with the Police Department.

Service-Connected Disability Retirement.

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

Non-Service Connected Disability Retirement.

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

Death Benefits.

If death occurs prior to retirement:

> An automatic monthly benefit is payable to the member's spouse and children. This benefit equals $2,388.49 for the spouse or surviving handicapped child (if there is no spouse), plus each eligible child receives $955.39 up to a maximum total family benefit of $4,776.98 (these benefits are indexed to inflation). If the death occurred in the line of duty, the spouse or surviving handicapped child (if there is no spouse) may elect to receive 66.67 percent of the member's regular salary at the time of death in lieu of the automatic benefits.

If death occurs after retirement:

> In addition to the automatic benefit detailed above, at the time the member retires, the Plan provides for the member to elect survivor benefit options for the Surviving Spouse or a Handicapped Child at 100 percent, 66.67 percent or 50.0 percent of the retiree's benefit.

Cost of Living Benefit.
Annual cost of living adjustments (COLAs)are provided to retirees and beneficiaries and are 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.

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.

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

C. Membership
At June 30, 2020, the date of the latest actuarial valuation, membership in the System consisted of:

Retirees and Beneficiaries Receiving Benefits	1,202
Terminated Vesteds	70
Deferred Retirement Option Program (DROP) Participants	74
Active Plan Members	1,353
Total	**2,699**

D. Deferred Retirement Option Program
Members eligible for normal retirement may elect to enter the DROP. As a DROP member, he or she will continue to work and receive a salary for a maximum period of three years while an amount equal to what could have been received as a retirement benefit is credited to his or her DROP account. The monthly benefit that will be credited to the DROP account is determined by the years of service and Average Final Compensation at the DROP entry date. During the DROP period, the retirement plan accumulates his or her accrued monthly benefit which is payable at the end of the DROP period. The DROP account balance is credited at an annual interest rate of 5 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, 2020, was $9.1 million.

E. Contributions
The contribution requirements of the System's members are established and may be amended by County ordinances. Member contributions are based on 8.65 percent of compensation for the year ended June 30, 2020. The County is required to contribute at an actuarially determined rate; the rate for the year ended June 30, 2020, was 41.60 percent of annual covered payroll. Total contributions for the fiscal year ended June 30, 2020, amounted to $61.4 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, 2020, amounted to $85.1 million.

Note 3. Investments

A. Investment Policy

The authority to establish the System is set forth in Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia). Section 26-45.1 of the Code of Virginia (Code), updated by Section 51.1-803, authorizes fiduciaries of the *System to purchase investments with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with the same aims. The Board shall also diversify such investments as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so.*

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

The following was the System's adopted asset allocation policy as of June 30, 2020. 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	31.0%
Global Fixed Income	39.0%
Global Multi-Asset	27.0%
Global Real Assets	12.5%

B. Concentrations

For the most part, the overall investment policy does not identify a specific level of credit risk, interest rate risk or foreign currency risk. That is addressed at the individual account level. The guideline for "concentration of risk" is system-wide, however the System does not hold investments (other than U.S. Government and U.S. Government-guaranteed obligations) in any one security that represent 5.0 percent or more of fiduciary 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 and the custodian provides insurance for all custody assets.

C. Rate of Return

For the year ended June 30, 2020, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was -3.87 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

D. Fair Value Hierarchy

The System measures and records its investments using fair value hierarchy measurement guidelines established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and gives 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.

Notes on Financial Statements
(continued)

Fair Value Hierarchy

Investments by Fair Value Level	6/30/2020	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Asset-Backed Securities	$49,328,398	$ -	$49,328,398	$ -
Convertible or Exchangeable Securities	2,222,336	-	2,222,336	-
Corporate and Other Bonds	39,159,669	-	39,159,621	48
Equity	158,491,090	123,594,614	-	34,896,476
Futures Contract	9,565,894	9,565,894	-	-
International Bonds	1,517,949	-	1,517,949	-
Natural Resources	4,986,688	-	-	4,986,688
Preferred Securities	936,102	651,902	284,200	-
Short-Term Investments	85,450,882	-	5,070,595	80,380,287
U.S. Government Obligations	42,370,768	-	42,370,768	-
Total Investments by Fair Value Level	**$394,029,776**	**$133,812,410**	**$139,953,867**	**$120,263,499**
Investments Measured at Net Asset Value (NAV)				
Absolute Return	$228,643,554			
Global Equity	136,474,726			
Global Fixed Income	336,102,027			
Global Multi-Asset	217,458,409			
Global Real Assets	85,571,076			
Total Investments Measured at NAV	**$1,004,249,792**			
Total Investments	**$1,398,279,568**			

Investment Measured at NAV

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Absolute Return	$228,643,554	$ -	Monthly, Quarterly	3 - 90 days
Global Equity	136,474,726	86,549,331	Daily, Monthly, Quarterly, None	3 - 90 days
Global Fixed income	336,102,027	107,510,837	Daily, Semi-Annually, None	5 - 90 days
Global Multi-Asset	217,458,409	-	Monthly	15 - 90 Days
Global Real Assets	85,571,076	30,956,183	Daily, None	3- 20 days
Total Investments Measured at NAV	**$1,004,249,792**	**$225,016,351**		

Absolute Return.

Global Macro:

This type includes four hedge funds. The first one has 100+ active ideas across fixed income, currencies, equities, and commodities. The process is equally driven by analysis of the macro environment, flows of capital, and the expected reaction to changes in interest rates and other drivers. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments. The second one is a Commodity Trading Advisor (CTA) that analyzes market prices to determine trends then uses tactical asset allocation to capture and ride market trends. The Fund is a diversified portfolio with exposure to currencies, commodities, bonds and short interest rates, and equity indices at various times. These exposures are typically achieved through the use of derivatives which 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 one is a short-term systematic global macro strategy and is unique vs. other systematic macro hedge funds. These managers tend to not only be uncorrelated to long-only beta, hedge funds broadly and other global macro hedge funds specifically, they are also generally uncorrelated to each other within their own peer group. These features give them extremely attractive diversification characteristics. The fourth one is a discretionary global macro strategy with an emerging markets bias. Portfolio consists of 3-5 medium to long-term structural themes per year with active short-term positioning. Strategy invests across equities, fixed income, currency, credit, and commodities.

Multi-Strategy:

This type includes two hedge funds. The first manager sells volatility (e.g. put options) on, and provides exposure to, multiple asset classes including: U.S. Large Cap Equity, U.S. Small Cap Equity, International Developed Equity, Emerging Markets Equity, High Yield Credit, Barclays Aggregate, Long-Dated Treasuries, Commodities, Foreign Exchange and VIX Volatility Index. Option implied volatility on many markets and related exchange traded funds is consistently higher than subsequent realized volatility, creating a structural opportunity. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments. The second fund is a stub position.

Event Driven:

This type includes two hedge funds. The first one focuses on global long/short credit and event driven positions, investing across the capital structure. The fund is directionally agnostic and over time has been net long and opportunistically net short. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments. The second fund is a stub position.

Relative Value:

This type includes three hedge funds. The first manager 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 value of this hedge fund has been determined using the NAV per share of the investments (or its equivalent). The second manager trades individual equities and targets a net exposure of 0% and a beta-adjusted net exposure of +/-10% with no particular style bias. The strategy allocates to two underlying quantitative models which have zero correlation to each other; a security selection model based on quantitative evaluation of fundamental factors and a model that uses securities selection driven by shorter-term alpha signals from a range of data sets. The third manager uses a systematic, relative value, duration-neutral approach to global fixed income, global stock indices, currency and volatility investing using a disciplined and repeatable quantitative investment process. They seek to capture macroeconomic theories using a range of input data and research ideas by using a combination of fundamental, technical and sentiment driven models.

Global Equity.

U.S. Equities:

This type includes one hedge fund and six private funds. The first 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 has been determined using the NAV per share of the investments (or its equivalent).

The first and second private fund focuses on acquiring minority equity stakes in institutionalized hedge fund firms or firms managing private exposures (private equity, private credit, etc.) with assets under management in excess of $1.0 billion.

The third and fourth private fund invests in blockchain technology, its many other industry uses, and the infrastructure for crypto currency markets (index rights, wallet, settlement, and custody platforms, etc.).

The fifth fund targets highly innovative life sciences businesses that are leaders in their spaces and present attractive return opportunities with downside protection. The strategy will target companies operating in specific areas of innovation such as therapeutics, medical devices, diagnostics, and life sciences tools.

The sixth fund seeks to identify and invest in breakthrough companies harnessing information growth and computing advances across a variety of industries.

International Equities:

This includes two managers. The first one is an international small cap long/short equity fund that uses a quantitative approach. In addition to traditional value measures such as price/ earnings and price/book ratios, the firm also considers growth-related factors, such as price momentum and trends in analysts' earnings estimates, to target undervalued companies that have strong prospects for future outperformance. The second one seeks long term capital appreciation by investing primarily in companies located in emerging market countries and opportunistically, in frontier market countries. The portfolio typically holds 30-50 companies within global emerging markets. Country and sector exposures are primarily a by-product of individual stock selection. The fair value of these funds has been determined by using NAV per share (or its equivalent) of the investments.

Global Fixed Income.

This type includes one fund and fourteen private debt funds. The fund incorporates a best ideas approach from a broad range of emerging markets sovereign bonds, corporate bonds, local bonds, currencies and volatility through long and short exposures. The private debt funds provide broad exposure to Direct Lending as well as Opportunistic Credit.

Direct Lending:

This strategy conducts middle market corporate and commercial mortgage direct lending with negotiated 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 a period of years as per the terms of the fund. Loan payments are also distributed on a monthly or quarterly basis. The loans are held at book value unless a payment default has occurred at which time a third-party appraisal value is determined.

Opportunistic Credit:

Opportunistic Credit includes opportunistic/distressed funds investing in public and private debt, equity and real estate as opportunities present themselves. 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 a period of years as per the terms of the fund. The fair values of the investments in this type have been determined monthly or quarterly using NAV per share (or its equivalent) of the investments.

Global Multi-Asset.

This type includes three funds that invest 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 percent expected volatility by overweighting the lower risk asset classes and balance expected returns in inflationary, deflation, high growth and low growth periods. This is achieved through the use of derivatives and liquid long positions across multiple asset classes. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments.

Global Real Assets.

This type includes two funds. The first fund focuses on publicly traded REITs, listed infrastructure, commodities, MLPs, natural resource equities (including timber and agriculture), precious metals, TIPS, and floating rate/bank loans. The strategy will set long term strategic allocations to those asset classes with broad ranges and the portfolio will be tactically reviewed on a quarterly basis. A second fund purchases interests in other private real estate funds on the secondary market. The fair value of these funds has been determined by using NAV per share (or its equivalent) of the investments.

E. Sensitivity to Interest Rate Risk

The System's investments' sensitivity to interest rates at June 30, 2020, were as follows:

Investment Type	Fair Value	Option Adjusted Duration (yrs)	Percentage of Fixed
Asset-Backed Securities	$49,328,398	2.9	34.2%
Corporate Bonds	50,947,899	5.8	35.3%
International Bonds	1,517,949	2.3	1.1%
U.S. Government Obligations	42,370,768	8.6	29.4%
Total Fixed Income	**$144,165,014**	5.6	**100.0%**
Short-Term Investments			
Cash and Cash Equivalents	($3,519,787)	-0.0	
Police STIF*	88,970,669	0.1	
Total Short-Term Investments	**$85,450,882**		

*Short-Term Investment Funds

The duration of the System's overall fixed income portfolio excluding pooled fund was 5.6 years for the separately managed accounts. BCAG's established option-adjusted duration was 5.99 years.

F. Short-term Investments

The short-term investments of $85.5 million includes a position of $89.0 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.

G. Quality Ratings

The System's investment quality ratings at June 30, 2020, for the separately managed fixed income accounts, were as follows:

Type of Investment	Fair Value	Ratings	Percentage of Fixed
U.S. Government Obligations	$42,370,768		29.4%
Asset-Backed Securities	13,415,849	AA	9.3%
	1,001,061	A	0.7%
	1,570,836	BBB	1.1%
	2,142,290	BB	1.5%
	350,983	B	0.2%
	1,018,911	CC	0.7%
	751,049	D	0.5%
	29,077,419	Unrated	20.2%
Corporate and Other Bonds	151,268	AA	0.1%
	3,252,273	BBB	2.3%
	20,906,099	BB	14.5%
	10,711,378	B	7.4%
	4,485,834	CCC	3.1%
	363,159	CC	0.3%
	121,650	C	0.1%
	7,942	D	0.0%
	10,948,296	Unrated	7.5%
International Bonds	169,310	A	0.1%
	383,840	BBB	0.3%
	417,000	BB	0.3%
	547,799	Unrated	0.4%
Total Fixed Income	**$144,165,014**		**100.0%**
Short-Term Investments			
Cash and Cash Equivalents	($3,519,787)	Unrated	
Police STIF*	88,970,669	Unrated	
Total Short-Term Investments	**$85,450,882**		

*Short-Term Investment Funds

As of June 30, 2020, the fixed income portfolio, excluding pooled funds, consisted of 43.2 percent invested in investment grade securities, 28.6 percent invested in securities rated below- investment-grade, and 28.2 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.

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. A portion of the developed markets currency exposures is hedged. The System's investments at June 30, 2020, held in currencies other than U.S. dollars were as follows:

International Securities	Short-Term Investments & Other	Convertible & Fixed Income	Equity	Total
Australian Dollar	$22	$ -	$4,316,203	$4,316,225
Canadian Dollar	-	-	2,009,865	2,009,865
Danish Krone	(7)	-	2,200,239	2,200,232
Euro Currency Unit	1,003	-	17,250,866	17,251,869
Hong Kong Dollar	-	-	7,971,377	7,971,377
Japanese Yen	16,209	-	15,071,045	15,087,254
Malaysian Ringgit	-	167,316	-	167,316
Mexican Peso	-	165,716	977,526	1,143,242
Norwegian Krone	-	-	568,740	568,740
Peruvian Sol	-	169,310	-	169,310
Pound Sterling	1	-	8,478,238	8,478,239
Singapore Dollar	-	473,441	2,171,458	2,644,899
South Korean Won	-	39,678	1,741,824	1,781,502
Swedish Krona	1,073	-	3,402,773	3,403,846
Swiss Franc	-	-	6,374,359	6,374,359
Thailand Baht	-	-	276,263	276,263
Other	599	186,077	176,000	362,676
Grand Total	**$18,900**	**$1,201,538**	**$72,986,776**	**$74,207,214**

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. The System had exposure to various derivatives including asset-backed securities, collateralized mortgage obligations (CMOs), 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 CMOs, are sensitive to changes in interest rates and pre-payments. It should also be noted that the System has exposure to derivatives indirectly through its ownership interests in certain hedge funds, mutual funds and commingled funds which may use, hold or write derivative financial instruments.

Derivative investments may involve, to varying degrees, elements of credit and market risk in excess of amounts recognized on the financial statements. Market risk results from 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, 2020, the System held the following three types of derivative financial instruments: futures, swaps and currency forwards. These three types of derivatives provide the System with the opportunity to build passive benchmark positions, enhance returns, and gain market exposure to various indices in a more efficient way and at lower transaction costs. Credit risks depend on whether the contracts are exchange-traded or exercised over-the-counter. Market risks arise from adverse changes in market prices, interest rates and foreign exchange rates.

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

Futures.

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

The notional value of the System's investment in futures contracts at June 30, 2020, were as follows:

Types of Futures	Base Exposure	Notional Cost
Cash and Cash Equivalents		
Short	($67,748,396)	($68,617,285)
Equity		
Long	106,338,330	103,048,122
Fixed Income Securities		
Long	162,667,992	158,822,725
Commodity		
Long	37,270,350	35,708,820
Total	**$238,528,276**	**$228,962,382**

Swaps.

The System enters into several types of swap contracts, in which two counterparties agree to exchange one stream of payments for another over some agreed to period of time. Swaps are used to manage risk and enhance returns. All counterparties are rated A or better. The following is the information on the System's swap contracts outstanding at June 30, 2020:

Fixed Income Securities	Fair Value	Base Exposure
Cleared Credit Default Swaps	($100,590)	($82,362)
Cleared Zero Coupon Swaps	18,139	18,138
Cleared Interest Rate Swaps	253,949	270,697
Total	**$171,498**	**$206,473**

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 the summary information on the System's currency forward contracts at June 30, 2020:

Foreign Currency Contracts Purchased	Notional (Local Currency)	Cost	Fair Value Payable in U.S. Dollars	Unrealized Gain/(Loss)
Euro Currency Unit	(290,000)	($314,079)	($325,803)	($11,724)
Japanese Yen	(46,577,000)	(437,278)	(431,875)	5,403
Pound Sterling	(230,000)	(287,753)	(284,234)	3,519
		($1,039,110)	**($1,041,912)**	**($2,802)**

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 the 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 sheets 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 2020 on the amounts of loans the lending agent made on its behalf. At June 30, 2020, 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, 2020, 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, 2020:

Securities Lent	Underlying Securities	Cash Collateral Investment Value	Securities Collateral Investment Value
Lent for Cash Collateral			
Corporate and Other Bonds	$8,499,732	$8,731,069	
Common and Preferred Stock	4,224,762	4,337,937	
Lent for Securities Collateral			
U.S. Government Securities	13,914,068	-	$15,305,738
Corporate and Other Bonds	4,496	-	4,588
Common and Preferred Stock	13,913,358	-	15,474,732
Total Securities Lent	**$40,556,416**	**$13,069,006**	**$30,785,058**

K. Reclassifications

During the fiscal year 2020, 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 net effect on the financial statements for any period.

L. Commitments and Contingencies

During 2020, an outbreak of a novel coronavirus ("COVID-19") emerged globally. The United States and the global markets experienced significant declines in value resulting from uncertainty caused by the worldwide coronavirus pandemic that could negatively impact the System's additions and operations for an indeterminable time period. Other financial impacts could occur that are unknown at this time.

Note 4. Net Pension Liability, Actuarial Methods and Assumptions

A. Net Pension Liability

The components of the net pension liability at June 30, 2020, were as follows:

Total Pension Liability	$1,851,586,671
Plan Fiduciary Net Position	1,400,564,931
Net Pension Liability	$451,021,740
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	75.64%

B. Actuarial Methods and Assumptions

The Total Pension Liability was determined by an actuarial valuation as of June 30, 2020, using the following actuarial assumptions, applied to all periods included in the measurement.

Entry Age Normal, Level Percent of Payroll	
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 13, 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, 2020, was 41.60 percent of annual covered payroll.

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. Twenty percent of pre-retirement deaths are assumed to be service-connected.

The actuarial assumptions used in the June 30, 2020, 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 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, 2020, are summarized below.

Asset Class	Long Term Expected Real Rate of Return
Absolute Return	7.00%
Core Fixed Income	1.80%
U.S. High Yield	4.25%
International Developed Mkt. Equities	4.35%
International Emerging Mkt. Equities	7.05%
Diversified Real Assets	4.55%
Diversified Multi-Asset	6.00%
U.S. Equity	4.65%
Gold	0.00%

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 2020 actuarial valuation. The administrative expenses attributable to current actives were assumed to equal 0.40 percent of covered payroll. The inflows to the plan were assumed to continue at the member rate for the 2020 active population of 8.65 percent of payroll and County contributions were projected at 41.60 percent for fiscal year 2021, with continued increases to 56.11 percent contributed through fiscal year 2035. After that time, the County contribution is assumed to decrease to the normal cost, plus expenses (16.79 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	$2,107,208,724	$1,851,586,671	$1,642,487,091
Plan Fiduciary Net Position	1,400,564,931	1,400,564,931	1,400,564,931
Net Pension Liability	$706,643,793	$451,021,740	$241,922,160
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	66.47%	75.64%	85.27%

Note 5. Income Taxes

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

Required Supplementary Information

(Unaudited)

Schedule of Changes in the Net Pension Liability and Related Ratios

Year Ended June 30	2020	2019	2018	2017
Total Pension Liability				
Service Cost	$32,943,754	$31,993,668	$30,743,227	$29,051,739
Interest	128,460,867	123,663,623	118,405,143	112,637,566
Changes in Benefit Terms	-	-	-	-
Differences Between Expected and Actual Experience	(5,784,619)	(7,959,490)	1,315,247	11,638,382
Changes in Assumptions	-	-	-	-
Benefit Payments, Including Refunds of Member Contributions	(84,449,652)	(80,576,131)	(77,838,367)	(73,175,998)
Net Change in Total Pension Liability	71,170,350	67,121,670	72,625,250	80,151,689
Total Pension Liability - Beginning	1,780,416,321	1,713,294,651	1,640,669,401	1,560,517,712
Total Pension Liability - Ending (a)	$1,851,586,671	$1,780,416,321	$1,713,294,651	$1,640,669,401
Plan Fiduciary Net Position				
Contributions - Employer	$50,781,403	$47,182,840	$44,504,675	$43,381,151
Contributions - Member	10,570,158	10,176,811	9,895,922	9,631,618
Net Investment Income	(59,355,354)	71,578,489	94,134,740	116,099,350
Benefit Payments, Including Refunds of Member Contributions	(84,449,652)	(80,576,131)	(77,838,367)	(73,175,998)
Administrative Expenses	(655,945)	(610,711)	(618,207)	(481,574)
Net change in Plan Fiduciary Net Position	(83,109,390)	47,751,298	70,078,763	95,454,547
Plan Fiduciary Net Position - Beginning	1,483,674,321	1,435,923,023	1,365,844,260	1,270,389,713
Plan Fiduciary Net Position - Ending (b)	$1,400,564,931	$1,483,674,321	$1,435,923,023	$1,365,844,260
Net Pension Liability - Ending (a)-(b)	451,021,740	296,742,000	277,371,628	274,825,141
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	75.64%	83.33%	83.81%	83.25%
Covered Payroll	$122,070,680	$117,662,943	$114,173,102	$111,290,793
Net Pension Liability as a Percentage of Covered Payroll	369.48%	252.20%	242.94%	246.94%

See next page for the continuation of the 10 year report.

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 Police Officers Retirement System.

Schedule of Changes in the Net Pension Liability and Related Ratios

Year Ended June 30	2016	2015	2014
Total Pension Liability			
Service Cost	$30,913,269	$30,389,897	$30,858,609
Interest	110,362,493	106,739,905	102,492,490
Changes in Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	(30,820,874)	(11,515,790)	-
Changes in Assumptions	9,895,400	-	-
Benefit Payments, Including Refunds of Member Contributions	(70,749,811)	(67,757,160)	(62,287,705)
Net Change in Total Pension Liability	49,600,477	57,856,852	71,063,394
Total Pension Liability - Beginning	1,510,917,235	1,453,060,383	1,381,996,989
Total Pension Liability - Ending (a)	$1,560,517,712	$1,510,917,235	$1,453,060,383
Plan Fiduciary Net Position			
Contributions - Employer	$40,646,884	$37,867,181	$34,178,960
Contributions - Member	9,324,066	8,889,931	10,091,331
Net Investment Income	10,764,028	41,601,153	176,683,610
Benefit Payments, Including Refunds of Member Contributions	(70,749,811)	(67,757,160)	(62,287,705)
Administrative Expenses	(510,544)	(443,230)	(431,064)
Net change in Plan Fiduciary Net Position	(10,525,377)	20,157,875	158,235,132
Plan Fiduciary Net Position - Beginning	1,280,915,090	1,260,757,215	1,102,522,083
Plan Fiduciary Net Position - Ending (b)	$1,270,389,713	$1,280,915,090	$1,260,757,215
Net Pension Liability - Ending (a)-(b)	290,127,999	230,002,145	192,303,168
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	81.41%	84.78%	86.77%
Covered Payroll	$107,021,811	$102,844,055	$100,912,194
Net Pension Liability as a Percentage of Covered Payroll	271.09%	223.64%	190.56%

Continued from previous page.

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

Required Supplementary Information
(continued)

Schedule of Net Pension Liability						
Year Ended June 30	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	Covered Payroll	Net Pension Liability as a Percentage of Covered Payroll
2020	$1,851,586,671	$1,400,564,931	$451,021,740	75.64%	$122,070,680	369.48%
2019	1,780,416,321	1,483,674,321	296,742,000	83.33%	117,662,943	252.20%
2018	1,713,294,651	1,435,923,023	277,371,628	83.81%	114,173,102	242.94%
2017	1,640,669,401	1,365,844,260	274,825,141	83.25%	111,290,793	246.94%
2016	1,560,517,712	1,270,389,713	290,127,999	81.41%	107,021,811	271.09%
2015	1,510,917,235	1,280,915,090	230,002,145	84.78%	102,844,055	223.64%
2014	1,453,060,383	1,260,757,215	192,303,168	86.77%	100,912,194	190.56%

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
2020	-3.87%
2019	5.02%
2018	7.01%
2017	9.31%
2016	0.87%
2015	3.36%
2014	16.20%
2013	9.50%
2012	-0.68%
2011	25.20%

Required Supplementary Information
(continued)

Schedule of Employer Contributions

Fiscal Year	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2020	$50,781,403	$50,781,403	$ -	$122,070,680	41.60%
2019	47,182,840	47,182,840	-	117,662,943	40.10%
2018	44,504,675	44,504,675	-	114,173,102	38.98%
2017	43,381,151	43,381,151	-	111,290,793	38.98%
2016	40,646,884	40,646,884	-	107,021,811	37.98%
2015	37,867,181	37,867,181	-	102,844,055	36.82%
2014	34,178,960	34,178,960	-	100,912,194	33.87%
2013	34,011,347	34,011,347	-	102,598,332	33.15%
2012	31,700,690	31,700,690	-	101,280,160	31.30%
2011	29,174,611	29,174,611	-	103,054,083	28.31%

Notes to the Required Supplementary Information

Valuation Date	6/30/2018
Timing	Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year
Key Methods and Assumptions Used to Determine Contribution Rates:	
Actuarial Cost Method	Entry Age Normal, Level Percent of Payroll
Asset Valuation Method	33% of Aggregate Gain/Loss is recognized
Amortization Method	Closed 15-year layers, 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, 2020 can be found in the June 30, 2018 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**
2020	41.60%	8.65%
2019	40.10%	8.65%
2018	38.98%	8.65%
2017	38.98%	8.65%
2016	37.98%	8.65%

July 2019	New hires on or after July 1, 2019, are enrolled in Plan C.
December 2018	Retirement Board of Trustees approved a new plan for all employees hired on or after July 1, 2019.
July 2014	Member contribution rate decreased from 10 percent to 8.65 percent.

Schedule of Investment & Consultant Expenses For the Year Ended June 30, 2020	
Investment Manager Fees	
Absolute Return	$3,068,763
Global Equity	5,791,493
Global Fixed Income	3,052,634
Global Multi-Asset	3,019,381
Global Real Assets	2,203,156
Short Term and Others	389,975
Fees Related to Securities Lending	225,635
Custodial Fees	74,087
Consultant Expenses	26,418
Investment Related Legal Fees	397,858
Allocated Administration Expense	402,829
Total Investment and Consultant Expenses	$18,652,229

Schedule of Administrative Expenses For the Year Ended June 30, 2020		
Personnel Services		
Salaries and Wages	$346,269	
Fringe Benefits	151,045	
Total Personnel Services		$497,314
Professional Services		
Actuarial	30,075	
Audit	6,641	
Total Professional Services		36,716
Communications		
Phone Charges	4,075	
Printing, Binding and Copying	2,179	
Postage	3,031	
Total Communications		9,285
Supplies		
Office Supplies	1,458	
Total Supplies		1,458
Other Services and Charges		
Staff Travel and Development	427	
Professional Membership	1,254	
Professional Subscription	801	
Insurance	11,218	
Building Rent	33,693	
Depreciation Expense	617	
Computer System	41,654	
Other Operating	21,508	
Total Other Services and Charges		111,172
Total Administrative Expenses		$655,945

Cherry Bekaert LLP
CPAs & Advisors

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 Police Officers' 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 Police Officers' Retirement System (the "System"), a pension trust fund of the County of Fairfax, Virginia, as of and for the year ended June 30, 2020 and the related notes to the financial statements, and have issued our report thereon dated November 13, 2020.

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") as a basis for designing 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 financial statements. 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.

Cherry Bekaert LLP

Tysons Corner, Virginia
November 13, 2020

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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

October 5, 2020

Dear Members of the Board of Trustees:

The fiscal year ended June 2020 saw the end of the longest economic expansion on record. Economies around the world were disrupted because of the novel coronavirus (COVID-19) and markets reacted with historically fast-paced declines. Governments and central banks from around the world took extraordinary measures to stimulate shuttered economies. In the U.S., fiscal stimulus reached over 12% of GDP while Germany, Japan, France, and the U.K. had materially larger stimulus packages. The Federal Reserve provided additional support to the U.S. economy by reducing the Fed Funds Rate to a targeted range of 0.00% to 0.25%, resumed quantitative easing, and flooded markets with liquidity. Similar actions were taken by central banks globally. These stimulus measures, along with optimism around a potential vaccine for COVID-19 and easing of lockdown restrictions resulted in a historically dramatic reversal in risk assets in the fourth fiscal quarter. U.S. stocks posted their eleventh consecutive year of positive returns and outperformed international equities, returning 7.5% as measured by the S&P 500 Index. International developed-markets equities (-5.1% for the year) lagged domestic equities by 12.6%. U.S. equity outperformance was driven in large part by big technology stocks that benefitted from a demand surge in the wake of the pandemic. Emerging markets equities returned -3.4%, underperforming U.S. equities and outperforming international-developed markets equities. Driven by declining interest rates and demand for safe-haven assets, U.S. high quality fixed income investments generated a positive 8.7% return in the fiscal year as measured by the Bloomberg Barclays U.S. Aggregate Bond Index.

US equities were a mixed bag in the third quarter of 2019 with the S&P 500 Index gaining 1.7% and the small cap Russell 2000 Index losing 2.4%. There was a sharp reversal of growth and value strategies across the capital spectrum in the final month of the quarter with value outperforming growth by 3.6% and 5.9% across large and small caps, respectively. International stocks were increasingly volatile for the three months ended September 30, 2019 amid concerns around the global fallout from the ongoing trade war between the United States and China. The MSCI EAFE Index posted a modest loss of 1.1% as gains from defensive sectors, such as utilities and consumer staples, offset losses from cyclical sectors such as energy and materials. Japanese equities recorded gains of 3.1%, while European stocks were in the red at 1.8%; emerging market equities and China were harder hit, losing 4.2% and 4.7%, respectively. In this late stage of the US economic cycle, investors are favoring higher-quality credit and safe-haven fixed income assets. As a result, US bond markets were in the black for the quarter with the Bloomberg Barclays Aggregate posting gains of 2.3%, the Bloomberg Barclays High Yield up 1.3%, and S&P LSTA Leveraged Loan Index returning 1.3%; the Bloomberg Barclays US Long Treasury gained 7.9% in the third quarter of 2019 underscoring the demand for safe-haven investments. Outside the US, emerging market debt (EMD) posted mixed results in the third quarter. Local currency denominated debt posted losses related to currency weakness but was positive for the trailing twelve-month period. External EMD sovereign debt and corporate bonds were up during the quarter. The fundamentals for emerging markets are still favorable, but volatility remains elevated.

Equities ended 2019 in a blaze of glory with emerging markets leading the way with fourth-quarter 2019 returns of 11.8%, bolstered by a trade pact between the United States and China; non-US developed market stocks were up 8.2% and US small-cap equities gained 9.9% during the same period. In the US, growth outperformed value by 3.2%, in line

FAIRFAX COUNTY Retirement SYSTEMS
EMPLOYEES' POLICE Officers UNIFORMED

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Phone: 703-279-8200 * 1-800-333-1633 * Fax: 703-273-3185
www.fairfaxcounty.gov/retirement/

with a trend established in the aftermath of the financial crisis, with the annualized difference totaling 3.6% over the last 10 years. While small caps edged out large caps for the three months ended December 31, 2019, large caps carried the year with returns of 31.5%, according to the S&P 500 Index, trouncing the Russell 2000 Index's gains of 25.4%. Outside the US, developed market small caps outperformed large caps by 3% with returns of 24.9%. Fixed-income securities ended 2019 in the black, reversing declines from the year earlier. Spreads on high-yield credit narrowed for most part of the year, but segments in the high-yield and bank loan market showed signs of stress towards the end of 2019. On a risk adjusted basis, high-yield and bank loan CCC-bonds posted their worst performance since the financial crisis. US credit ended the year up 13.7%, according to the Bloomberg Barclays Aggregate Index, while the Bloomberg Barclays High Yield Index gained 14.3% in 2019; the S&P LSTA Leveraged Loan Index returned 10.6% during the same period. Outside the US, emerging market debt performed robustly but concerns were elevated due to heightened geo-political risks and an overall slowdown in global growth. The JPM EMBI Index was up 15%, while the JPM GBI Index was in the black, gaining 13.4% last year.

Equities nosedived in the first quarter of 2020 as volatility tore through markets. The S&P 500 Index plunged 29.5% over 18 trading days between February and March, ending the quarter down 19.6%. The MSCI EAFE and Emerging Markets indexes also recorded steep losses of 22.8% and 23.6%, respectively. Growth and large-cap companies outperformed value and small caps; the gap was the widest in the US with the Russell 1000 Growth Index declining 14.1% compared to losses of 35.7% for the Russell 2000 Value Index. Energy companies, particularly in the exploration and production sector, were the hardest hit with the S&P 500 Energy Sector Index down 50.5% for the three months ended March 31, 2020. Fixed income experienced significant spread widening across the credit spectrum in the first quarter amid market illiquidity, rapid deleveraging, and fire sales in March. Government bond yields fell as investors took refuge in safe-haven securities. The Bloomberg Barclays Aggregate Index was up 3.1% as gains in Treasuries were offset by negative returns from investment-grade credit. Debt rated below investment grade suffered larger losses with the Bloomberg Barclays High Yield Index down 12.7% and the S&P LSTA Leveraged Loan Index declining 9.9%. Credit hedge funds were not immune to the market dislocation, with the HFRI Relative Value index down 4.1%. Emerging market debt was also in the red with the JPM EMBI Index declining 13.4% and the JPM GBIEM Index losing 15.2% for the quarter.

Equities surged in the second quarter of 2020, substantially erasing losses from the prior quarter. US stocks led the rally with the S&P 500 Index returning 20.5%; emerging market equities and non-US developed market stocks followed with gains of 18.1% and 14.9%, respectively, during the same period. In domestic stocks, growth trumped value, with the Russell 1000 Growth Index up 27.8% compared to returns of 14.3% for its value counterpart. Small-cap companies outperformed large-cap with the Russell 2000 Index up 25.4% for the three months ended June 30, 2020. Technology shares maintained their lead with the NASDAQ Composite hitting new highs; the S&P 500 technology sector was up 30.5% in the second quarter of 2020 and 15.0% for the year. Corporate bond spreads compressed significantly in the second quarter of 2020 amid the Fed's massive intervention in fixed income markets. The central bank held benchmark rates at a range of 0% to 0.25%. Issuance of corporate investment-grade and high-yield bonds during this period outpaced the prior quarter. US corporate credit benefitted from improved market liquidity with the Bloomberg Barclays US Aggregate Index returning 2.9% in the second quarter, bringing year-to-date gains to 6.1%; the Bloomberg Barclays US Corporate High Yield Index was up 10.2% for the three months ended June 30,2020 while the S&P/LSTA Leveraged Loan Index rose 6.6% in the same period.

Ending June 30, 2020, U.S. stocks posted their eleventh consecutive year of positive returns and outperformed international equities, returning +7.5% as measured by the S&P 500 Index. U.S. equities outperformance was primarily driven by a few large technology stocks which benefitted from a demand surge in the wake of the pandemic. Although technology companies began the fiscal year detracting from domestic equity portfolio, the sector was a significant driver of performance rounding out the fiscal year up 15% (as measured by the S&P Technology index). Growth ended the fiscal year outpacing value, driven in part by the markets increasing risk appetite, ending the fiscal year with the widest margin for a 6-month period since 1998. Large cap names outpaced their small cap peer, returning +7.5% (as measured by the S&P 500) versus the Russell 2000 return which returned -6.6% for the one-year period ending June 30, 2020.

Driven by declining interest rates and demand for safe-haven assets, U.S. high quality fixed income investments generated a positive 8.7% return in the fiscal year as measured by the Bloomberg Barclays U.S. Aggregate Bond Index. Credit markets ended the fiscal year with Corporate bond spreads compressed significantly in the second quarter of 2020 amid the Fed's massive intervention in fixed income markets. The central bank held benchmark rates at a range of 0% to 0.25%. US corporate credit benefitted from improved market liquidity with the Bloomberg Barclays US Aggregate Index returning bringing fiscal year end gains to +6.1%; the Bloomberg Barclays US Corporate High Yield Index was flat, while the S&P/LSTA Leveraged Loan Index returned -0.5% in the same period.

International stock saw a volatile fiscal year, beginning with negative returns driven by increased volatility amid concerns around the global fallout from the ongoing trade war between the United States and China. International names were a part of the equity blaze of glory during the last quarter of 2019, driven by strong emerging market returns as the trade pact between the US and China was used to inject confidence into the international markets. The positive returns from quarter end of 2019 were disintegrated as the equity markets took a nosedive as markets entered a global pandemic. For the fiscal year end, developed markets underperformed emerging markets, although both ended the one-year period with negative returns. One bright spot within international markets was Japan, which was helped during Q2 2020 when the Japanese government approved a record stimulus package equaling almost 40% of GDP to prevent COVID-19. For the one-year period ending June 30, 2020, developed markets, measured by MSCI EAFE, posted a return of -5.1% and emerging markets (measured by MSCI Emerging Markets Index) posted a return of -3.4%.

Police Officers Retirement System

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

As of June 30, 2020, the Fairfax County Police Officers Retirement System stood at $1.401 billion, down from $1.483 billion at the end of fiscal year 2019. Calculating performance using a time-weighted rate of return, for the year ending 2020, the system returned -2.85%, gross of fees (-3.87%, net of fees), ranking in the 97th percentile of all public funds in the BNY Mellon Total Public Fund Universe. The System was adversely impacted by short-term cash markets freezing up in March at a time when a portion of the portfolio was being transitioned between investment managers. For the three, five, and ten-year periods (annualized), the system returned gross of fees, +3.55%, (+2.62%, net of fees), ranking in the 97th percentile, +4.32%, (+3.57%, net of fees), ranking in the 91st percentile, and +7.43% (+6.91, net of fees), ranking in the 84th percentile, respectively.

During the past twelve months, the System continued to focus on further diversifying risk. Morgan Creek Blockchain Opportunity II, Sands Life Science Pulse, and Two Sigma Ventures III were added to the Global Equity portfolio; Crabel Capital Management and Kirkoswald Capital Partners were added to the Absolute Return lineup; Man AHL TargetRisk was added to the Global Multi-Asset lineup; Crestline IV, EJF Debt Opportunity, Marathon Europe Credit IV, Marathon Distressed, PIMCO DiSCO III, and Solus Long-Term Opportunity Fund were added to the Global Fixed Income portfolio.

Sincerely,

Katherine Molnar

Katherine Molnar, CFA
Chief Investment Officer
Fairfax County Police Officers Retirement System

Investment by Category and Investment Manager
For the Yar Ended June 30, 2020

Asset Class Manager	Investment Style	Fair Value	% of Total Portfolio
Absolute Return			
AlphaSimplex Group	Global Macro	$28,758,778	2.1%
AQR Style Premia	Relative Value	2,079,370	0.1%
Aspect Systematic GM	Global Macro	28,847,753	2.1%
BlueCrest Capital Management	Multi-Strategy	133,249	0.0%
Bridgewater Pure Alpha	Global Macro	36,041,670	2.6%
Crabel Capital Management	Systematic Global Macro	30,021,344	2.1%
DGV Solutions LP	Multi-Strategy	24,333,015	1.7%
King Street Capital	Event Driven	3,013,280	0.2%
Kirkoswald	Global Macro	31,956,254	2.3%
Maverick MFQ	Absolute Return	23,360,588	1.7%
Solus Alternative Asset Management	Event Driven	20,098,253	1.4%
Global Equity			
ACADIAN Int' Small Cap	Int'l Developed Small Cap	34,896,476	2.5%
Dyal Capital Partners	Private Markets Equity	24,628,486	1.9%
First Eagle Investment Management	Int'l Developed Markets Value	45,422,088	3.2%
Morgan Creek	Private Markets Equity	26,873,767	1.9%
Sands Capital Management Life Science Pulse	Private Markets Credit	1,410,303	0.1%
Sands Capital Management	Int'l Emerging Markets	41,188,677	2.9%
Starboard Value and Opportunity	U.S. Small Cap	38,057,226	2.7%
Two Sigma Venture III	U.S. Small Cap	4,316,267	0.3%
WCM Investment Management*	Int'l Developed Markets Growth	54,411,038	3.9%
Global Fixed Income			
Crestline Management	Private Markets Credit	37,241,361	2.6%
Czech Asset Management	Private Markets Credit	29,422,605	2.1%
Double Line Capital DMO	Private Markets Credit	39,282,075	2.8%
DoubleLine Capital SMBS*	Mortgage-Backed Securities	52,869,193	3.8%
EJF Debt Opportunity	Private Markets Credit	34,932,926	2.5%
Loomis, Sayles & Company*	High Yield Bonds	44,415,662	3.2%
Marathon Asset Management LP ("Marathon")	Private Markets Credit	30,506,520	2.2%
Parametric Portfolio Associates TIPS*	Inflation-Linked	42,539,670	3.0%
PGIM Emerging Market	Emerging Market	54,087,420	3.9%
PIMCO BRAVO	Private Markets Credit	10,693,520	0.8%
PIMCO BRAVO III	Private Markets Credit	39,439,520	2.8%
PIMCO DISCO III	Private Markets Credit	7,000,000	0.5%
PIMCO Tactical Opportunities	Private Markets Credit	31,591,695	2.3%
SOLUS Long Term Capital	Private Markets Credit	20,828,938	1.4%
Global Multi-Asset			
AQR Global Risk Premium	Core Risk Parity	47,175,733	3.4%
Blackrock Market Advantage	Core Risk Parity	85,821,627	6.1%
Man AHL Target Risk	Core Risk Parity	84,461,049	6.0%
Global Real Assets			
Cohen & Steers Capital Management*	Global Real Estate Securities	41,845,621	3.0%
Deutsche Asset Management	Multi-Real Asset	71,643,176	5.1%
Landmark Partners	Private Markets Real Estate	13,927,900	1.0%
Short Term			
Cash Held at County Treasurer	Operating Cash Account	1,016,012	0.1%
BNY Mellon Cash Management	Plan Level Cash Account	35,766,919	2.6%
BNY Mellon Cash Investment Strategies STIF	Plan Level Cash Account	2,025,483	0.1%
Parametric Portfolio Associates*	Overlay	42,084,790	3.0%
Total Investments		$1,400,467,297	100.0%

*Separately Managed Accounts

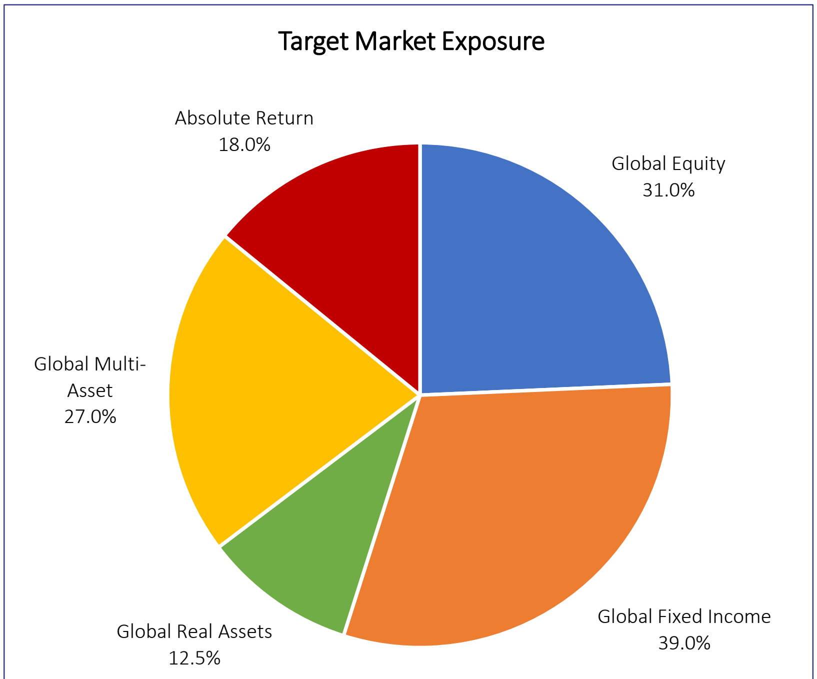
**See pages 8-9 for complete listing of investment professionals

Police Officers Retirement System – Allocation of Capital Exposures

Target Asset Allocation

The asset structure shown below represents the Trustees' assessment of their optimal asset allocation as of June 30, 2020. 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, 2020.

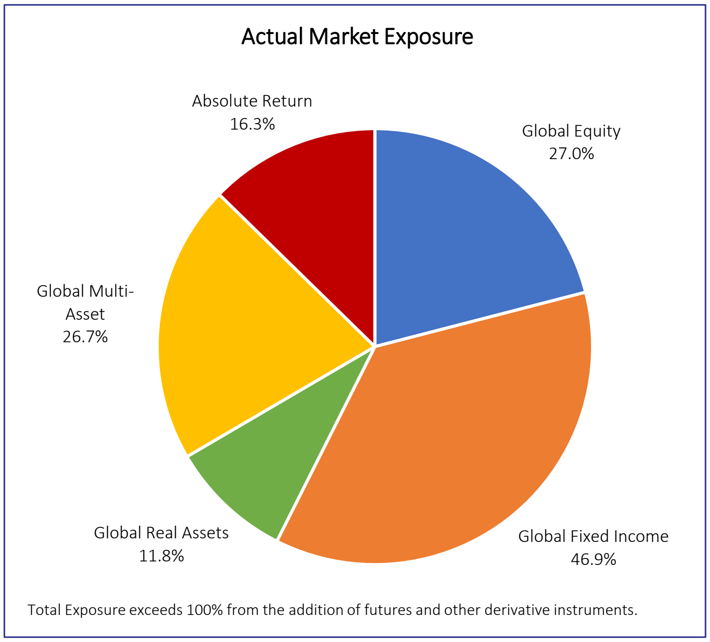


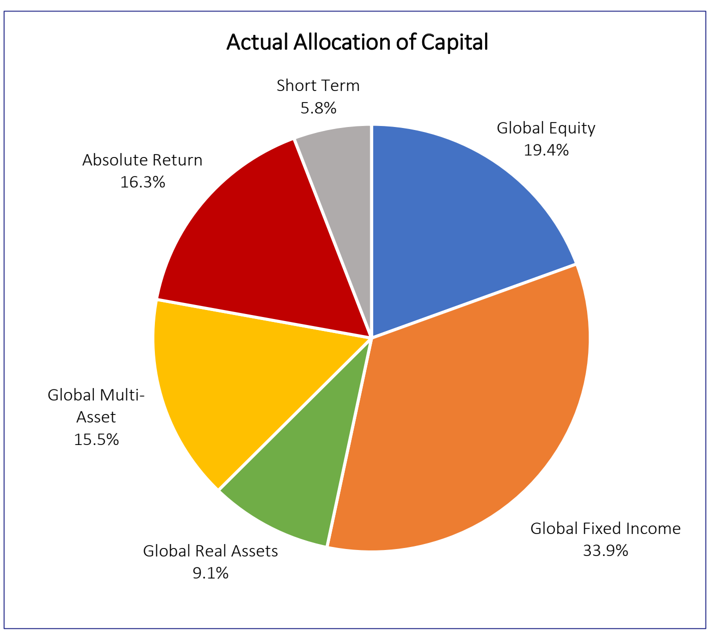
Total Exposure exceeds 100% from the addition of futures and other derivative instruments.

Actual Asset Allocation as of June 30, 2020

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

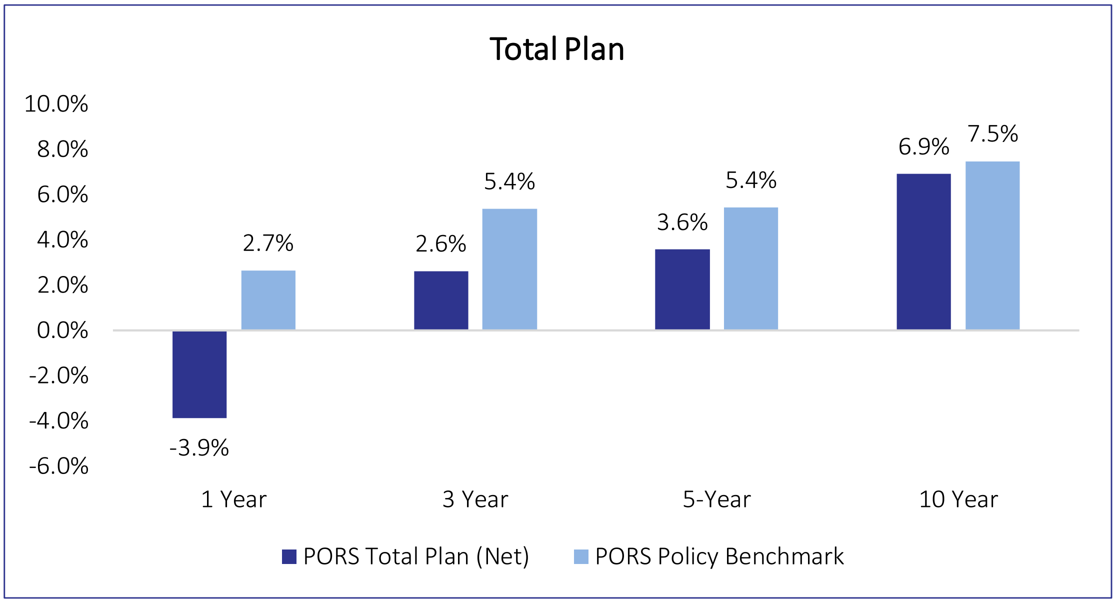
The pie chart below details the target asset mix, consistent with the achievement of the long-term objectives of the System, as of June 30, 2020.



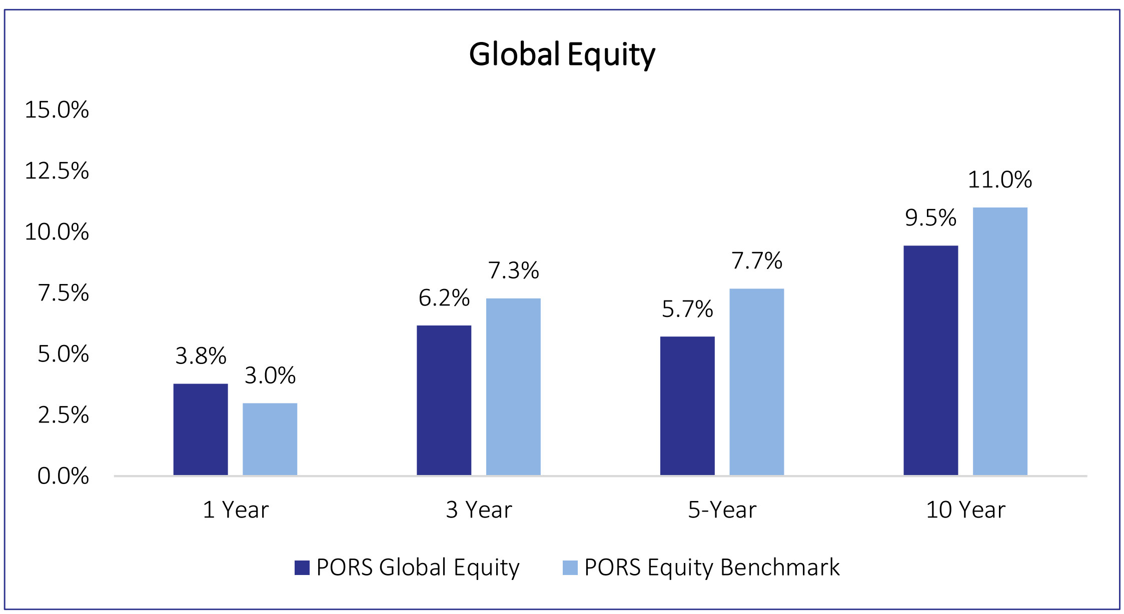


Investment Results

(Time-Weighted Return, net of Fees)



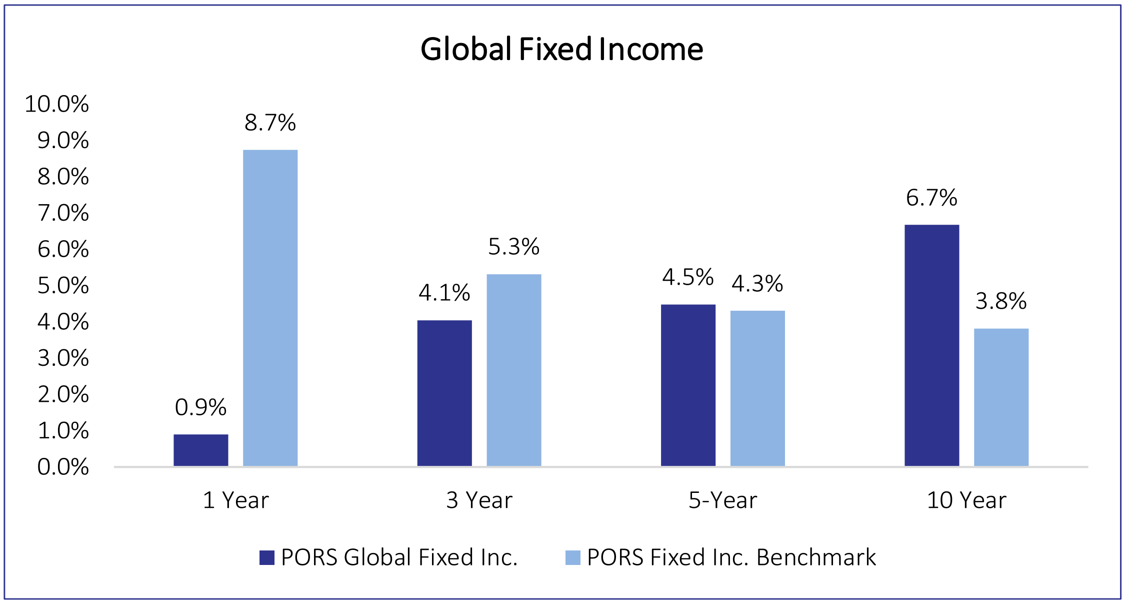
*Current Benchmark: 27% Global Multi-Asset blended benchmark, 11% S&P 500, 8% Russell 2000, 9.5% MSCI EAFE, 2.5% MSCI Emerging Markets, 35% U.S. Aggregate Bond Index, 4% Merrill Lynch High Yield Master, 10% Real Assets blended benchmark, 2.5% S&P GSCI Gold Excess Return, -7.0% Libor. (Benchmark has been revised through time)



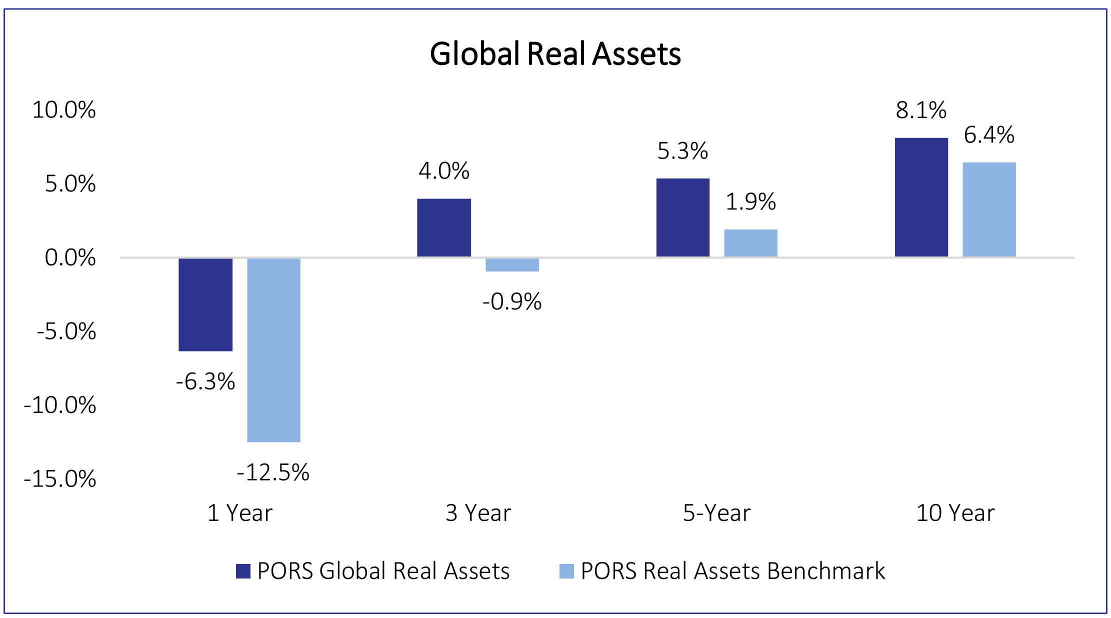
*Current Benchmark: 41% S&P 500, 33% MSCI EAFE, 17% Russell 2000, 9% EM (Benchmark has been revised through time)

Investment Results

(Time-Weighted Return, net of Fees)

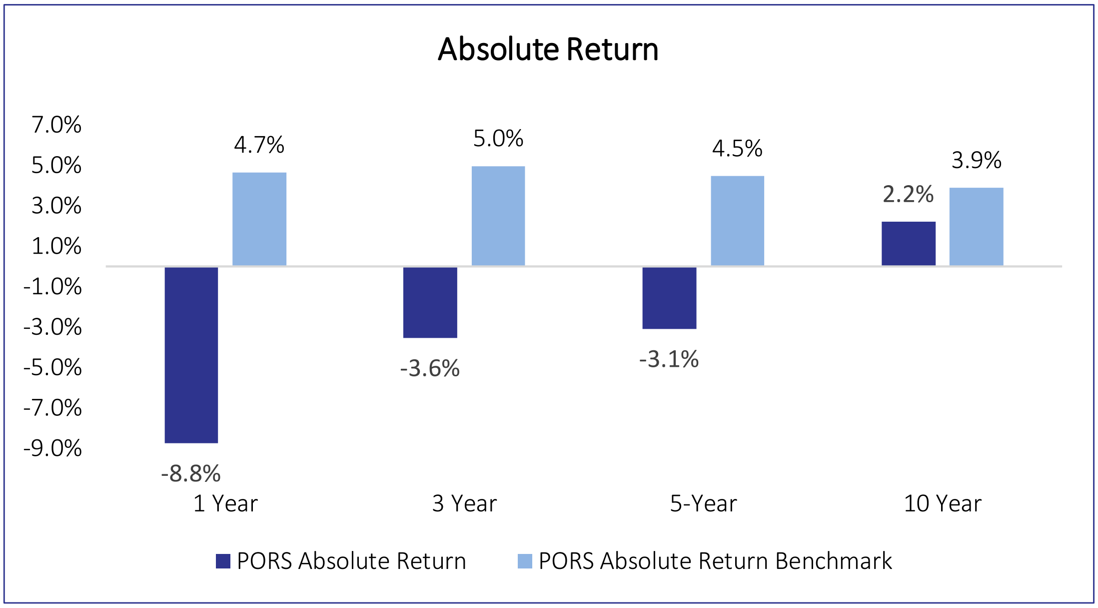


*Current Benchmark: 83% U.S. Agg Bond Index, 17% Merrill Lynch High Yield Master (Benchmark has been revised through time)

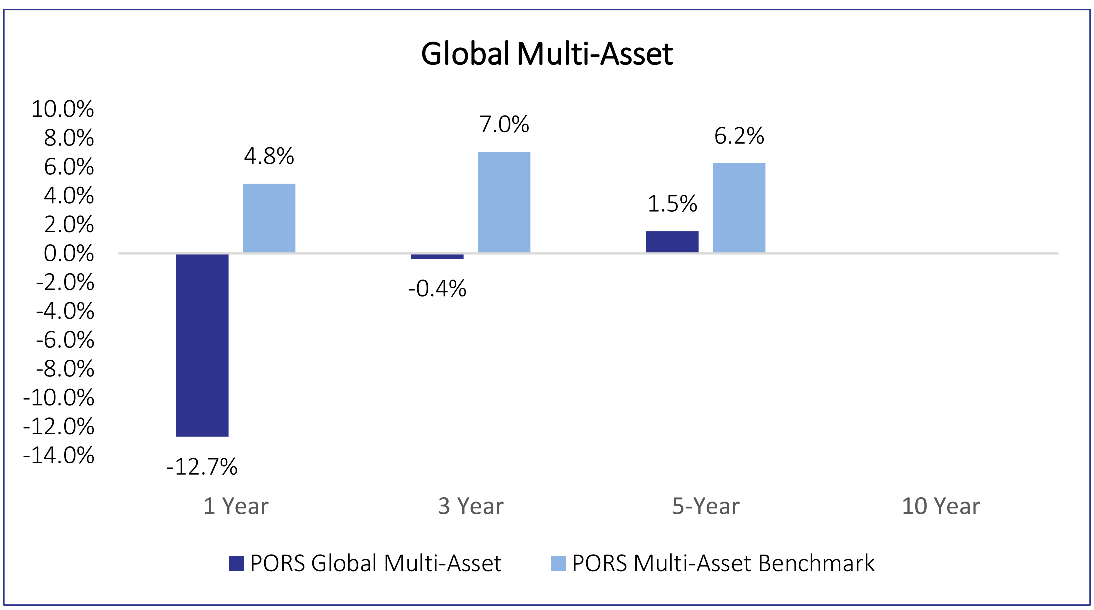


*Current Benchmark: 33.3% FTSE/NAREIT Developed, 33.3% DJ Brookfield Global Infrastructure, 33.3% Commodity (Benchmark has been revised through time)

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



*Current Benchmark: Libor + 3% (Benchmark has been revised through time)



*Current Benchmark: 25% MSCI AC World Index (Local Currency Gross), 75% Global Treasury 7-10 Year Index (Hedged), 75% World Government Inflation Linked Bond Index (Hedged), 25% Commodity Index, -100% LIBOR 3 Month Return (Benchmark has been revised through time)

Schedule of Ten Largest Equity & Fixed Income Holdings

Ten Largest Equity Holdings*

No. Shares	Description	Cost	Fair Value	% of Total Portfolio
3,705	Shopify Inc	$459,908	$3,516,786	0.25%
9,846	Lululemon Athletica Inc	1,988,846	3,072,050	0.22%
29,982	Prologis Inc	2,023,189	2,798,220	0.20%
2,589	Mercadolibre Inc	1,656,738	2,552,159	0.18%
12,575	Csl Ltd	904,841	2,484,814	0.18%
35,000	Tencent Holdings Ltd	523,899	2,251,611	0.16%
11,530	Resmed Inc	1,227,828	2,213,760	0.16%
10,126	Accenture Plc	1,168,985	2,174,255	0.16%
61,425	Experian Plc	1,060,822	2,139,529	0.15%
17,085	Dsv Panalpina A/S	1,618,035	2,084,921	0.15%
	Total	**$12,633,091**	**$25,288,105**	**1.81%**

*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
8,722,242	U.S. Treas-Cpi Inflat 0.125% 07/15/2024 Dd 07/15/14	$8,930,432	$9,110,032	0.65%
6,192,936	U.S. Treas-Cpi Inflat 2.375% 01/15/2027 Dd 01/15/07	7,380,665	7,518,905	0.54%
5,183,747	U.S. Treas-Cpi Inflat 3.875% 04/15/2029 Dd 04/15/99	7,180,722	7,326,604	0.52%
5,182,743	U.S. Treas-Cpi Inflat 0.125% 01/15/2022 Dd 01/15/12	5,173,844	5,252,607	0.38%
3,296,880	U.S. Treas-Cpi Inflat 1.375% 02/15/2044 Dd 02/15/14	4,445,420	4,494,604	0.32%
2,033,083	U.S. Treas-Cpi Inflat 1.000% 02/15/2048 Dd 02/15/18	2,657,551	2,684,991	0.19%
2,085,155	Fhlmc Multiclass Mtg 4223 Sbvar Rt 07/15/2043 Dd 07/01/13	1,618,601	2,334,456	0.17%
2,013,439	U.S. Treas-Cpi Inflat 0.125% 04/15/2025 Dd 04/15/20	2,073,915	2,109,299	0.15%
1,308,698	U.S. Treas-Cpi Inflat 2.125% 02/15/2040 Dd 02/15/10	1,900,589	1,928,027	0.14%
1,970,304	Fhlmc Multiclass Mtg 0.000% 07/15/2043 Dd 08/01/13	1,063,964	1,772,052	0.13%
	Total	**$42,425,703**	**$44,531,577**	**3.19%**

*Full disclosure of holdings is available upon request.

Schedule of Brokerage Commissions

For Year Ended June 30, 2020

Broker Name	Base Volume	Total Shares	Base Commission	Commission Percentage
MORGAN STANLEY & CO, LONDON (MSLNGB2X)	$505,245	233,200	$4,306	0.85%
DAIWA SECS SMBC CATHAY CO, TAIPEI	2,824,530	510,000	7,061	0.25%
KIM ENG SEC, BANGKOK	168,977	374,300	421	0.25%
CIMB SECURITIES (USA), INC, NEW YORK	41,584	644,000	104	0.25%
DAIWA SEC SMBC INDIA PRIV LTD,MUMBIA	146,678	6,953	294	0.20%
BANCO BTG PACTUAL SA, RIO DE JANEIRO	753,414	128,000	1,508	0.20%
AMBIT CAPITAL PRIVATE LTD, MUMBAI	1,746,366	262,608	3,494	0.20%
CITIBANK, NY	51,064	8,300	102	0.20%
INSTINET PACIFIC LTD, HONG KONG	1,572,671	112,298	3,009	0.19%
GOLDMAN SACHS DO BRASIL, SAO PAULO	1,484,724	129,500	2,836	0.19%
BANCO SANTANDER, NEW YORK	907,806	91,800	1,729	0.19%
BOFA SECURITIES, INC, NEW YORK	2,983,798	554,445	5,467	0.18%
BANCO ITAU, SAO PAULO	2,128,779	383,600	3,838	0.18%
SAMSUNG SECS, SEOUL	1,172,416	31,219	2,077	0.18%
HYUNDAI SECURITIES, SEOUL	2,197,340	107,122	3,676	0.17%
J P MORGAN SEC LTD/STOCK LENDING, LONDON	99,623	1,199	160	0.16%
CITIGROUP GBL MKTS INDIA, MUMBAI	1,625,409	207,262	2,576	0.16%
BARCLAYS CAPITAL, LONDON (BARCGB33)	964,503	76,310	1,523	0.16%
J.P. MORGAN SECURITIES, HONG KONG	1,970,973	855,353	3,057	0.16%
S G WARBURG, SEOUL	1,956,840	51,370	3,012	0.15%
SANFORD C. BERNSTEIN (INDIA) PRI, MUMBAI	402,903	223,134	606	0.15%
CARNEGIE SECS LTD, HELSINKI (CASFFIH1)	258,645	6,528	389	0.15%
DAVY STOCKBROKERS, DUBLIN	1,360,835	167,916	2,044	0.15%
J P MORGAN SEC, SYDNEY	331,752	75,832	498	0.15%
CREDIT SUISSE AUSTRALIA EQ, MELBOURNE	276,925	115,029	416	0.15%
SKANDINAVISKA ENSKILDA BANKEN, LONDON	510,881	13,302	767	0.15%
CREDIT SUISSE (EUROPE), LONDON	113,575	826	170	0.15%
CHINA INTL CAP CORP HK SECS, HONG KONG	1,219,712	1,187,000	1,827	0.15%
MIRAE ASSET SECURITIES, SEOUL	86,916	756	130	0.15%
SVENSKA HANDELSBANKEN, STOCKHOLM	744,363	37,653	1,115	0.15%
BNP PARIBAS PEREGRINE SEC LTD, HONG KONG	1,038,790	31,600	1,556	0.15%
CREDIT MUTUEL-CIC BANQUES, PARIS	402,018	3,217	602	0.15%
REDBURN PARTNERS LLP, LONDON	1,993,046	162,899	2,979	0.15%
BERENBERG GOSSLER & CIE, HAMBURG	5,152,278	140,549	7,640	0.15%
JP MORGAN SECS, SINGAPORE	248,522	56,200	367	0.15%
CREDIT INDUSTRIEL ET COMMERCIAL, PARIS	2,378,064	116,886	3,458	0.15%
RAYMOND JAMES & ASSOC INC, ST PETERSBURG	198,580	13,501	288	0.15%
D CARNEGIE AB, STOCKHOLM	5,846,672	246,419	8,222	0.14%
OKASAN INTERNATIONAL (ASIA), HONG KONG	12,033,489	435,900	16,912	0.14%
J P MORGAN SECS LTD, LONDON	5,113,739	234,194	7,149	0.14%
HAITONG INTL SEC CO LTD, HONG KONG	2,276,842	163,800	3,178	0.14%
DAIWA SECS AMER INC, NEW YORK	8,696,003	609,283	12,007	0.14%
CARNEGIE ASA, OSLO	524,396	23,642	717	0.14%
MAINFIRST BANK AG,FRANKFURT AM MAIN	3,570,190	86,682	4,816	0.13%
SKANDINAVISKA ENSKILDA BANKEN, STOCKHOLM	3,376,378	171,824	4,376	0.13%
SHENYIN WANGUO SECS LTD, HONG KONG	844,834	295,500	1,091	0.13%
CITIBANK LTD, MELBOURNE	258,987	81,998	334	0.13%
CITIGROUP GLOBAL MARKETS LTD, LONDON	1,607,805	101,667	2,068	0.13%
PEEL HUNT LLP, LONDON	388,672	92,851	499	0.13%
MITSUBISHI UFJ SECURITIES, NEW YORK	10,480,520	322,975	13,380	0.13%
Other Brokers	1,480,459,531	64,965,780	930,211	0.06%
Total	$1,577,498,600	74,954,182	$1,080,063	0.07%

Schedule of Management Fees by Asset Class

For Year Ended June 30, 2020

Asset Class	Fair Value	Management Fees
Absolute Return	$228,643,554	$3,068,763
Global Equity	271,204,328	5,791,493
Global Fixed Income	474,851,105	3,052,634
Global Multi-Asset	217,458,409	3,019,381
Global Real Assets	127,416,697	2,203,156
Short Term and Others	80,893,204	389,975
Total	**$1,400,467,297**	**17,525,402**

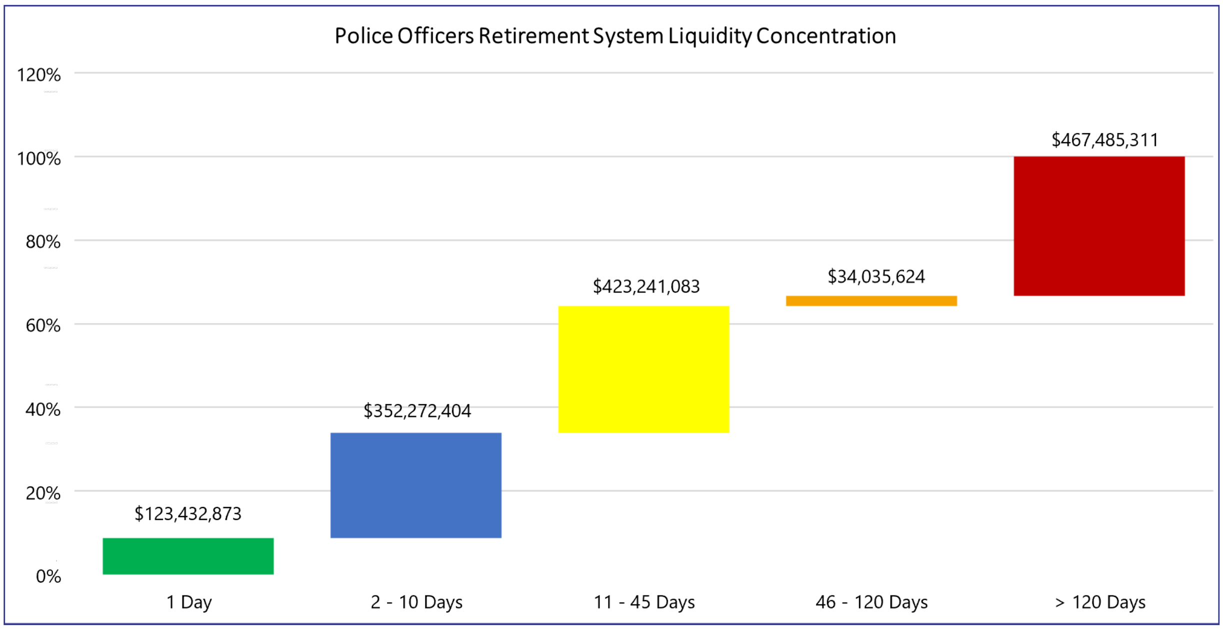
Investment Summary

(Based on Capital Allocation)

	As of June 30, 2020		As of June 30, 2019	
	Fair Value	% Fair Value	Fair Value	% Fair Value
Absolute Return	$228,643,554	16.3%	$241,380,876	16.3%
Global Equity	271,204,328	19.4%	283,557,483	19.1%
Global Fixed Income	474,851,105	33.9%	352,927,978	23.8%
Global Multi-Asset	217,458,409	15.5%	395,976,385	26.7%
Global Real Assets	127,416,697	9.1%	135,604,130	9.1%
Short Term and Others	80,893,204	5.8%	74,280,408	5.0%
Total	**$1,400,467,297**	**100.0%**	**$1,483,727,260**	**100.00%**

Liquidity Snap Shot on June 30, 2020

The below liquidity chart for the Police Officers 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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CHEIRON Classic Values, Innovative Advice.

September 24, 2020

Fairfax County Police Officers
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 Police Officers Retirement System (System) as of June 30, 2020. 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 Comprehensive Annual Financial Report. For a more complete analysis, please see the full report.

Funding Objective

The funding objective of the System is to establish contribution rates that will remain level as a percentage of payroll over time. In order to achieve this, the County 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 15 year layered amortization bases reflecting assumption changes, plan changes, and annual gains and losses.

Assumptions

The actuarial assumptions used in performing the June 30, 2020 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 2020 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, 2020.

Compliance with Code of Virginia §51.1-800

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

Although there is no formal procedure for making this comparison, we compared the least valuable rate under the Police Officers 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. We found that the employer-provided accrual rates do exceed two-thirds of the most valuable employer-provided accrual rates under the VRS plan.

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

Certification

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

Sincerely,
Cheiron

Fiona E. Liston, FSA
Principal Consulting Actuary

Coralie A, Taylor, FSA
Consulting Actuary

Summary of Valuation Results

The Actuarially Determined Contribution rate for Fiscal Year (FY) 2020 was developed in the 2018 valuation report. For more information on the assumptions and methods used to develop that rate, please see the Funding Method section of that report.

Amounts disclosed in Note 4 of the Financial Section were developed in conjunction with the 2020 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 rate includes amortization layers which exhaust the unfunded liability amount over 15 year layers from the date first measured. The amortization is performed as a level percent of pay.

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

The County's total contribution rate is equal to the sum of these three components.

Actuarial Value of Assets

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

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

Changes Since Last Valuation

None

Long Term Assumptions Used to Determine System Costs and Liabilities

Demographic Assumptions
Healthy Mortality

Annual Deaths Per 10,000 Members

Mortality Projected to 2020

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	53
65	122	82
70	187	131
75	303	214
80	511	362
85	890	642
90	1,586	1,162
95	2,520	1,934
100	3,577	2,869

*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.

20% of pre-retirement deaths are assumed to be service-connected.

Disabled Mortality

Annual Deaths Per 1,000 Members

Mortality Projected to 2020

Age	Male	Female
45	171	104
50	205	133
55	232	166
60	264	201
65	319	246
70	410	331
75	558	483
80	796	730

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 Per 1,000 Members

Years of Service	Terminations
0	70
1	50
2	40
3	33
4	28
5	23
6	20
7	15
8	14
9	11
10	8
11	7
12	6
13	6
14	5
15	5
16	4
17	4
18	3
19	3
20	2
21	2
22	1
23	1
24	1
25 or more	0

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

Disability

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

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

Retirement/DROP

Years of Service	Retirement/DROP*
5-24	5%
25	40
26	40
27	40
28	40
29	40
30	40
31	40
32	40
33	40
34	40
35+	100

*70% of those who leave under this decrement are assumed to DROP, with the other 30% taking immediate retirement.

Merit/Seniority Salary Increase

(in addition to across-the-board increase)

Years of Service	Merit/Seniority Increase*
0	7.00%
1	6
2	5
3	4
4	3
5	2
6+	1

Family Composition

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

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:	0.40% of payroll.

* Benefit increases are limited to 4% per year.

Changes Since Last Valuation

None

Analysis of Financial Experience

Gain and Loss in Accrued Liability during Years Ended June 30[1]

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
2011	$26,496,140	($12,495,024)	$14,001,116	($5,795,987)	$8,205,129
2012	(8,996,470)	1,919,058	7,077,412	-	(7,077,412)
2013	523,678	17,282,544	17,806,222	-	17,806,222
2014	31,937,393	11,575,441	43,512,834	(3,202,649)	40,310,185
2015	(4,528,707)	19,857,201	15,328,494	-	15,328,494
2016	(31,414,324)	10,963,818	(20,450,506)	(9,895,400)	(30,345,906)
2017	(14,213,085)	(11,638,382)	(25,851,467)	-	(25,851,467)
2018	(11,506,421)	(1,315,247)	(12,821,668)	-	(12,821,668)
2019	(18,786,193)	7,959,490	(10,826,702)	-	(10,826,702)
2020	(68,790,703)	5,784,618	(63,006,085)	-	(63,006,085)

[1] Schedule comes from the Actuarial Valuation as of June 30, 2020.

Schedule of Retirees and Beneficiaries

Added To and Removed From Rolls[2]

Year Ended June 30	Added to Rolls		Removed From Rolls		On Rolls @ Yr. End		% Increase Allowance	Average Allowance
	No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		
2011	34	$3,623,899	8	$306,852	850	$48,395,771	7.36%	$56,936
2012	37	3,304,118	11	433,632	876	51,266,257	5.93%	58,523
2013	51	3,747,038	20	820,110	907	54,193,185	5.71%	59,750
2014	71	5,441,901	12	671,616	966	58,963,469	8.80%	61,039
2015	62	4,149,523	16	534,130	1,012	62,578,862	6.15%	61,837
2016	35	1,828,843	8	288,260	1,039	64,119,445	2.46%	61,713
2017	55	3,992,713	12	600,334	1,082	67,511,824	5.29%	62,395
2018	51	4,209,384	14	756,560	1,119	70,694,648	5.11%	63,418
2019	46	4,289,133	12	714,403	1,153	74,539,378	5.04%	64,648
2020	72	5,480,470	23	1,205,650	1,202	78,814,198	5.73%	65,569

[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 Type[1]

	Aggregate Accrued Liabilities For						
	(1)	(2)	(3)		(1)	(2)	(3)
Valuation Date June 30	Active Member Contributions	Retirees, Vested Terms, Beneficiaries & DROP	Active Members (County Financed Portion)	Reported Assets	Portion of Accrued Liabilities by Reported Assets		
2011	$104,188,027	$732,172,476	$383,248,604	$982,153,681	100%	100%	38%
2012	107,411,328	798,639,061	380,790,276	1,035,444,171	100%	100%	34%
2013	107,211,514	859,305,980	374,612,001	1,101,474,728	100%	100%	36%
2014	106,872,811	913,113,803	421,557,979	1,224,882,430	100%	100%	49%
2015	105,765,035	961,692,517	423,602,482	1,289,972,504	100%	100%	53%
2016	110,961,165	995,104,603	454,451,944	1,333,218,360	100%	100%	50%
2017	114,966,811	1,022,229,636	503,472,954	1,394,270,429	100%	100%	51%
2018	116,981,031	1,067,481,291	528,832,329	1,458,935,865	100%	100%	52%
2019	118,210,189	1,119,414,518	542,791,614	1,521,246,708	100%	100%	52%
2020	116,462,622	1,180,355,291	554,768,758	1,538,146,337	100%	100%	44%

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

Schedule of Active Member Valuation Data

Valuation Date June 30	Number of Active Members[2]	Covered Payroll	Average Annual Salary	Percentage Increase in Average Pay
2011	1,293	$100,251,171	$77,534	
2012	1,276	101,121,159	79,249	2.21%
2013	1,237	97,361,728	78,708	-0.68%
2014	1,226	98,346,858	80,218	1.92%
2015	1,246	100,619,957	80,754	0.67%
2016	1,319	109,062,310	82,686	2.39%
2017	1,329	112,928,533	84,973	2.77%
2018	1,350	117,785,703	87,249	2.68%
2019	1,382	121,441,720	87,874	0.72%
2020	1,353	123,249,682	91,094	3.66%

[2] Excludes DROP participants.

Schedule of Funding Progress

Valuation Date June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liabilities (b)	Unfunded Actuarial Accrued Liabilities (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
2011	$982,153,681	$1,219,609,107	$237,455,426	81%	$99,070,327	240%
2012	1,035,444,171	1,286,840,665	251,396,494	80%	101,121,159	249%
2013	1,101,474,728	1,341,129,495	239,654,767	82%	97,361,728	246%
2014	1,224,882,430	1,441,544,593	216,662,163	85%	98,346,859	220%
2015	1,289,972,504	1,491,060,034	201,087,530	87%	100,619,957	200%
2016	1,333,218,360	1,560,517,712	227,299,352	85%	109,062,310	208%
2017	1,394,270,429	1,640,669,401	246,398,972	85%	112,928,533	218%
2018	1,458,935,865	1,713,294,651	254,358,786	85%	117,785,703	216%
2019	1,521,246,708	1,780,416,321	259,169,613	85%	121,441,720	213%
2020	1,538,146,337	1,851,586,671	313,440,334	83%	123,249,682	254%

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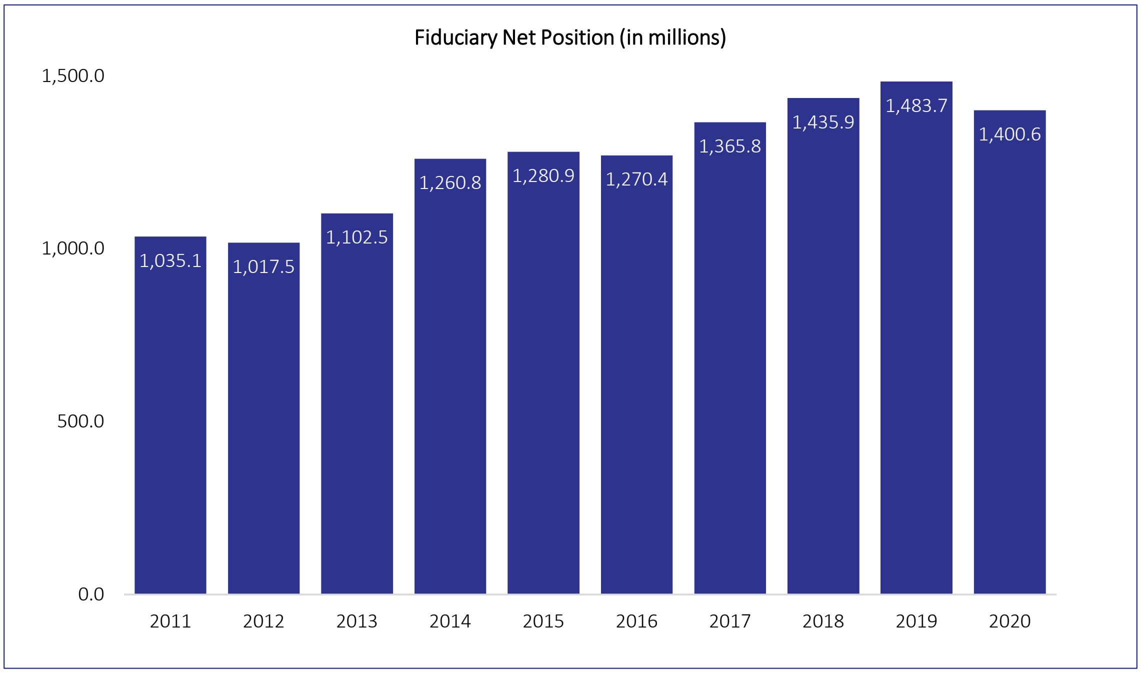
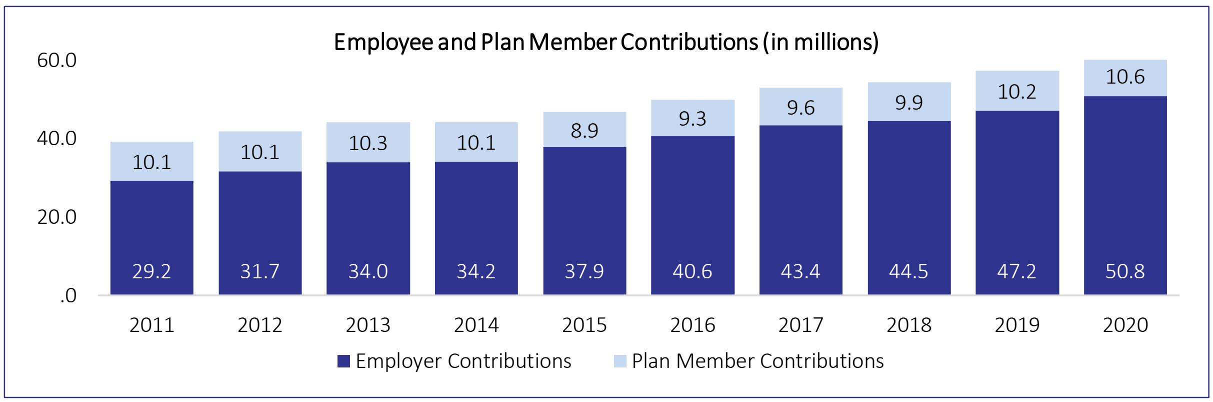
The Statistical Section presents historical information regarding the retirement plan. This information includes a ten-year analysis of the sources of change in plan fiduciary net position, benefit payments, the number of retired members and average monthly benefits. Sources of additions include employer 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.

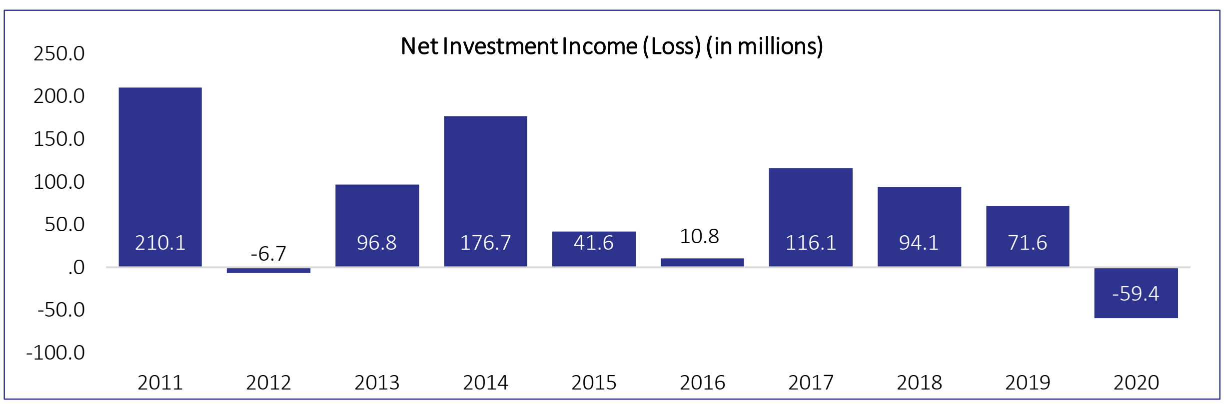


Fiscal Year	Fiduciary Net Position
2011	$1,035,145,961
2012	1,017,451,230
2013	1,102,522,083
2014	1,260,757,215
2015	1,280,915,090
2016	1,270,389,713
2017	1,365,844,260
2018	1,435,923,023
2019	1,483,674,321
2020	1,400,564,931

Changes in Fiduciary Net Position					
Fiscal Year	**2011**	**2012**	**2013**	**2014**	**2015**
Additions by Source					
Plan Member Contributions	$10,142,459	$10,109,068	$10,258,858	$10,091,331	$8,889,931
Employer Contributions	29,174,611	31,700,690	34,011,347	34,178,960	37,867,181
Net Investment Income (Loss)	210,054,206	(6,731,294)	96,783,078	176,683,610	41,601,153
Total Additions	249,371,276	35,078,464	141,053,283	220,953,901	88,358,265
Deductions by Type					
Benefit Payments	$49,429,119	$52,043,157	$55,266,464	$61,715,421	$67,276,713
Refunds of Contributions	466,363	357,901	300,847	572,284	480,447
Administrative Expenses	362,889	372,137	415,119	431,064	443,230
Total Deductions	50,258,371	52,773,195	55,982,430	62,718,769	68,200,390
Change in Fiduciary Net Position	**$199,112,905**	**($17,694,731)**	**$85,070,853**	**$158,235,132**	**$20,157,875**

See next page for the continuation of the 10 year report.





Changes in Fiduciary Net Position					
Fiscal Year	**2016**	**2017**	**2018**	**2019**	**2020**
Additions by Source					
Plan Member Contributions	$9,324,066	$9,631,618	$9,895,922	$10,176,811	$10,570,158
Employer Contributions	40,646,884	43,381,151	44,504,675	47,182,840	50,781,403
Net Investment Income (Loss)	10,764,028	116,099,350	94,134,740	71,578,489	-59,355,354
Total Additions	60,734,978	169,112,119	148,535,337	128,938,140	1,996,207
Deductions by Type					
Benefit Payments	$70,352,623	$72,534,389	$77,478,191	$80,116,433	$84,087,797
Refunds of Contributions	397,188	641,609	360,176	459,698	361,855
Administrative Expenses	510,544	481,574	618,207	610,711	655,945
Total Deductions	71,260,355	73,657,572	78,456,574	81,186,842	85,105,597
Change in Fiduciary Net Position	**($10,525,377)**	**$95,454,547**	**$70,078,763**	**$47,751,298**	**($83,109,390)**

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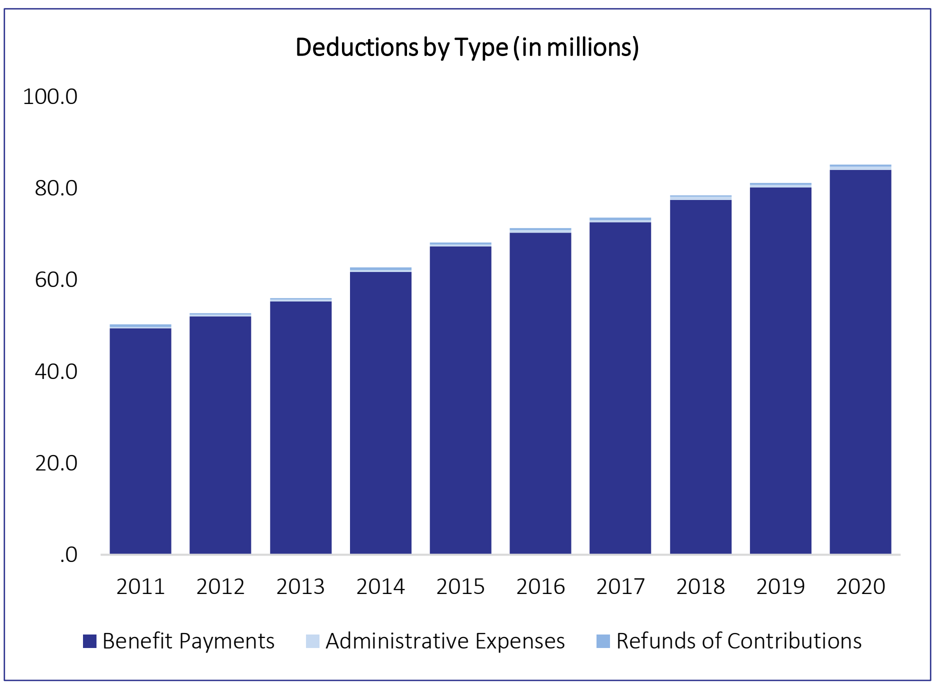


Schedule of Benefit Payments by Type

Fiscal Year	Service Annuity	Service-Connected Disability	Ordinary Disability	Survivor Benefit	Total
2011	$45,302,801	$1,173,023	$109,018	$2,844,277	$49,429,119
2012	47,757,201	1,180,749	149,163	2,956,044	52,043,157
2013	50,784,313	1,212,826	147,739	3,121,586	55,266,464
2014	56,871,422	1,179,687	130,181	3,534,131	61,715,421
2015	62,221,104	1,182,810	134,897	3,737,902	67,276,713
2016	65,061,094	1,262,170	135,167	3,894,192	70,352,623
2017	67,080,670	1,148,156	136,519	4,169,044	72,534,389
2018	71,721,421	1,248,701	145,058	4,363,011	77,478,191
2019	74,086,887	1,295,820	157,209	4,576,517	80,116,433
2020	77,451,380	1,280,763	175,781	5,179,873	84,087,797

Schedule of Retired Members by Benefit Type

Fiscal Year	Service Annuity	Service-Connected Disability	Ordinary Disability	Survivor Benefit	Total
2011	716	30	7	97	850
2012	735	30	7	104	876
2013	764	30	6	107	907
2014	813	29	6	118	966
2015	862	29	6	115	1,012
2016	880	30	6	123	1,039
2017	915	30	6	131	1,082
2018	952	28	6	133	1,119
2019	978	28	7	140	1,153
2020	1,011	27	7	157	1,202

Schedule of Average Monthly Benefit Amounts

Fiscal Year	Service Annuity	Service-Connected Disability	Ordinary Disability	Survivor Benefit	Average
2011	$5,154	$3,284	$1,776	$2,392	$4,745
2012	5,320	3,370	1,825	2,385	4,877
2013	5,427	3,334	1,844	2,418	4,979
2014	5,551	3,385	1,874	2,469	5,087
2015	5,592	3,236	1,877	2,515	5,153
2016	5,599	3,556	1,877	2,424	5,143
2017	5,664	3,350	1,896	2,493	5,200
2018	5,745	3,688	1,921	2,482	5,285
2019	5,864	3,987	1,872	2,518	5,387
2020	5,967	4,290	1,901	2,537	5,458

Schedule of Average Monthly Benefit Payments by Years of Service

	Years of Credited Service*						
	2-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/2009 to 6/30/2010							
Average Monthly Benefit **	$ -	$ -	$3,069	$ -	$4,278	$5,307	$ -
Average of Final Monthly Salaries	$ -	$ -	$5,936	$ -	$7,866	$7,182	$ -
Number of Retirees	-	-	2	-	4	32	-
Period 7/1/2010 to 6/30/2011							
Average Monthly Benefit **	-	4,163	-	4,580	4,169	6,193	6,504
Average of Final Monthly Salaries	-	6,062	-	6,669	7,099	8,246	7,576
Number of Retirees	-	1	-	1	8	20	2
Period 7/1/2011 to 6/30/2012							
Average Monthly Benefit **	-	600	-	-	4,565	5,800	-
Average of Final Monthly Salaries	-	3,711	-	-	7,437	7,661	-
Number of Retirees	-	1	-	-	4	17	-
Period 7/1/2012 to 6/30/2013							
Average Monthly Benefit **	-	-	4,339	-	4,070	5,702	7,525
Average of Final Monthly Salaries	-	-	6,319	-	7,416	8,056	8,661
Number of Retirees	-	-	1	-	4	27	3
Period 7/1/2013 to 6/30/2014							
Average Monthly Benefit **	-	-	-	3,147	4,041	5,795	6,965
Average of Final Monthly Salaries	-	-	-	6,728	7,192	8,016	7,837
Number of Retirees	-	-	-	2	9	37	7
Period 7/1/2014 to 6/30/2015							
Average Monthly Benefit **	-	997	3,202	3,758	4,059	5,624	8,047
Average of Final Monthly Salaries	-	5,519	6,235	6,925	7,507	7,840	8,698
Number of Retirees	-	1	2	2	3	32	5
Period 7/1/2015 to 12/31/2015							
Average Monthly Benefit **	-	3,726	-	3,113	3,590	5,792	8,409
Average of Final Monthly Salaries	-	5,589	-	6,492	6,977	7,982	9,192
Number of Retirees	-	1	-	1	1	15	5
Period 1/1/2016 to 12/31/2016							
Average Monthly Benefit **	-	967	3,416	2,999	3,876	5,739	6,814
Average of Final Monthly Salaries	-	6,031	6,565	6,478	7,386	7,976	7,628
Number of Retirees	-	1	2	1	5	33	3
Period 1/1/2017 to 12/31/2017							
Average Monthly Benefit **	-	2,340	2,243	-	4,469	6,267	7,219
Average of Final Monthly Salaries	-	5,541	6,510	-	7,652	8,542	8,206
Number of Retirees	-	2	2	-	4	31	5
Period 1/1/2018 to 12/31/2018							
Average Monthly Benefit **	-	1,334	-	-	4,464	6,466	7,171
Average of Final Monthly Salaries	-	5,809	-	-	8,291	8,687	8,149
Number of Retirees	-	3	-	-	6	24	3
Period 1/1/2019 to 12/31/2019							
Average Monthly Benefit **	-	929	1,937	-	4,089	6,551	9,192
Average of Final Monthly Salaries	-	4,670	6,287	-	7,747	8,884	10,481
Number of Retirees	-	1	2	-	11	32	5

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

Active Participants Count by Age/Service

	Service								
Age	**Under 1**	**1 to 4**	**5 to 9**	**10 to 14**	**15 to 19**	**20 to 24**	**25 to 29**	**30 & Up**	**Total**
Under 25	30	57	-	-	-	-	-	-	87
25 to 29	20	162	38	2	-	-	-	-	222
30 to 34	8	61	90	53	-	-	-	-	212
35 to 39	2	16	28	97	68	2	-	-	213
40 to 44	2	9	17	32	105	73	1	-	239
45 to 49	-	3	5	13	70	116	25	-	232
50 to 54	-	1	2	7	29	40	25	4	108
55 to 59	-	1	3	3	7	5	7	4	30
60 to 64	-	-	1	2	2	1	1	2	9
65 & up	-	-	-	-	-	1	-	-	1
Total	62	310	184	209	281	238	59	10	1,353

Active Participants Total Salary by Age/ Service

	Service								
Age	**Under 1**	**1 to 4**	**5 to 9**	**10 to 14**	**15 to 19**	**20 to 24**	**25 to 29**	**30 & Up**	**Total**
Under 25	$1,712,379	$3,507,728	$-	$-	$-	$-	$-	$-	$5,220,107
25 to 29	1,185,855	11,379,126	2,995,999	152,497	-	-	-	-	15,713,477
30 to 34	484,838	4,410,695	7,376,500	4,563,655	-	-	-	-	16,835,688
35 to 39	116,786	1,126,034	2,367,720	8,473,090	6,344,015	189,907	-	-	18,617,552
40 to 44	128,372	698,431	1,392,361	2,816,673	9,839,389	7,545,805	154,854	-	22,575,885
45 to 49	-	236,263	414,522	1,080,872	6,462,124	11,741,001	2,891,740	-	22,826,522
50 to 54	-	79,568	189,599	604,371	2,685,248	3,999,347	2,944,841	589,898	11,092,872
55 to 59	-	73,625	256,672	252,635	648,733	477,314	733,482	569,994	3,012,455
60 to 64	-	-	87,240	170,273	177,112	92,853	133,991	271,617	933,086
65 & up	-	-	-	-	-	93,698	-	-	93,698
Total	$3,628,230	$21,511,470	$15,080,613	$18,114,066	$26,156,621	$24,139,925	$6,858,908	$1,431,509	$116,921,342

Retirees by Location

Retirees By State

State	% of Total
Virginia	70.36%
Florida	8.77%
North Carolina	4.64%
South Carolina	3.73%
Maryland	2.32%
Georgia	1.21%
Pennsylvania	1.21%
Texas	1.11%
Tennessee	0.91%
West Virginia	0.91%
Arizona	0.60%
Alabama	0.40%
Arkansas	0.40%
California	0.30%
Colorado	0.30%
New York	0.30%
South Dakota	0.30%
Delaware	0.20%
District of Columbia	0.20%
Kentucky	0.20%
Missouri	0.20%
Nevada	0.20%
Idaho	0.10%
Iowa	0.10%
Louisiana	0.10%
Maine	0.10%
Massachusetts	0.10%
Minnesota	0.10%
New Hampshire	0.10%
New Jersey	0.10%
New Mexico	0.10%
North Dakota	0.10%
Oregon	0.10%
Wisconsin	0.10%

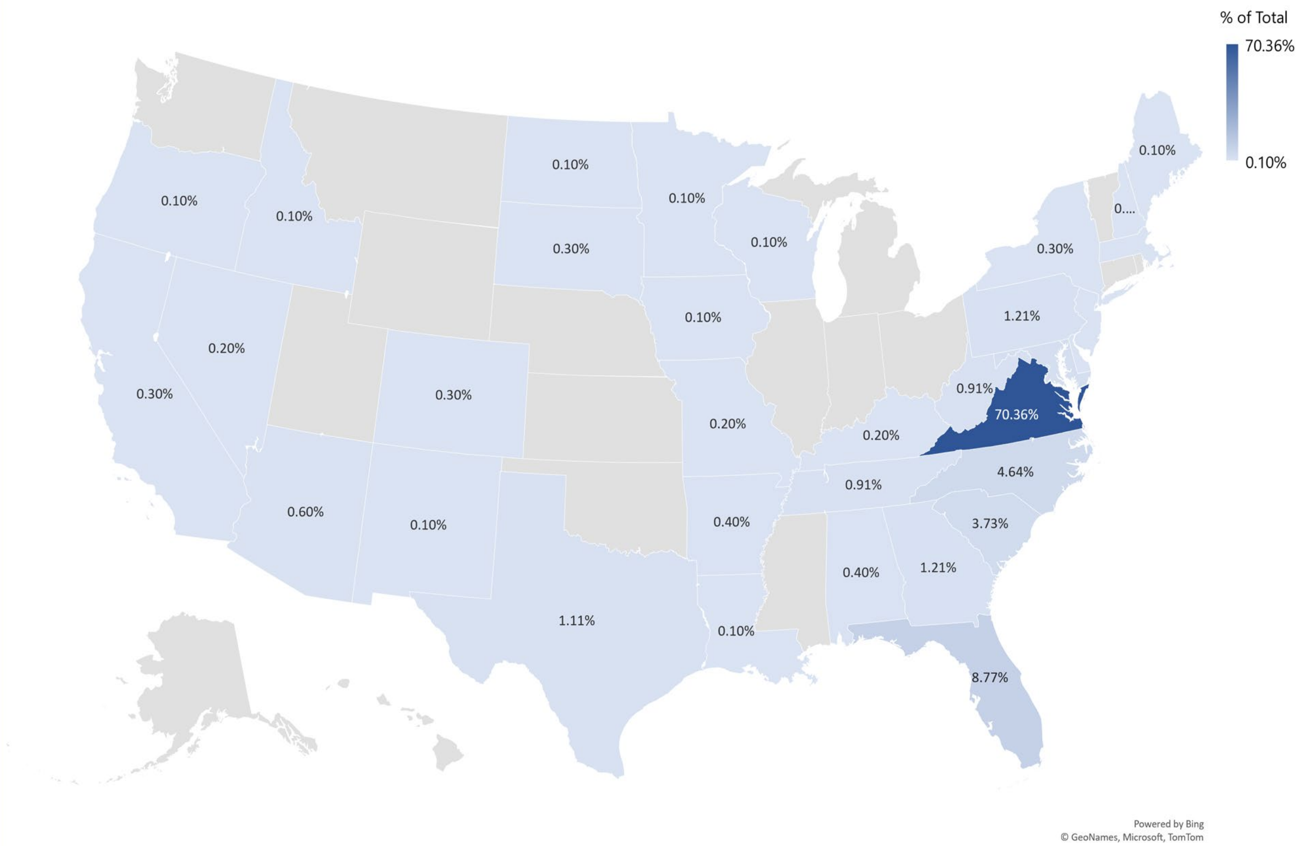
Retirees in Virginia

County	% of Total
Other Counties	93.38%
Fairfax County	6.62%
Total	**100.00%**

Retirees by Fairfax County/City

City	% of Total
Centreville	1.21%
Fairfax	0.60%
Springfield	0.81%
Herndon	0.60%
Clifton	0.50%
Fairfax Station	0.60%
Lorton	0.60%
Alexandria	0.30%
Vienna	0.30%
Chantilly	0.30%
Reston	0.20%
Burke	0.10%
Oakton	0.20%
Falls Church	0.20%
Great Falls	0.10%

Retirees by State



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.

We have added new features for our member's convenience:

- **All our forms online are now fillable**
- **We have added How To videos to our video library**
- **Our classes are available virtually**
- **You can now meet with your retirement analyst virtually as well. Just email your analyst for more details.**

HOW TO VIDEOS
- **How to Use the Online Retirement Benefit Estimator**

HOW TO FILL OUT FORMS:
- **Employee Normal/Early Service Retirement Application**
- **Direct Deposit Form**
- **Payroll Deduction Form**

FAIRFAX COUNTY Retirement SYSTEMS
EMPLOYEES' POLICE Officers UNIFORMED

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