

# ANNUAL COMPREHENSIVE FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2022

FAIRFAX COUNTY  
**POLICE** Officers  
RETIREMENT SYSTEM



A Fiduciary Component Unit  
of Fairfax County, Virginia

# ANNUAL COMPREHENSIVE FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2022

Three systems...  
one team.



*A Fiduciary Component Unit of Fairfax County, Virginia*

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

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# INTRODUCTORY





# INTRODUCTORY





# County of Fairfax, Virginia

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

November 22, 2022

Dear Members of the Board of Trustees:

I am pleased to submit to you the Annual Comprehensive Financial Report (ACFR) of the Fairfax County Police Officers Retirement System (System) for the fiscal year ended June 30, 2022. This ACFR 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 1,299 active members, 73 in the Deferred Retirement Option Program (DROP), 88 terminated vested members and 1,317 retirees participating in the System as of June 30, 2022. For calculations surrounding the Total Pension Liability and its components, Cheiron, the System's actuary, used June 30, 2022, 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.



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

## **Capital Markets and Economic Conditions**

In fiscal year 2022, for the year ending 2022, the system returned +3.90%, gross of fees (+0.89%, net of fees), ranking in the 3rd percentile of all public funds in the BNY Mellon Total Public Fund Universe. For the three, five, and ten-year periods (annualized), the system returned gross of fees, +10.89%, (+8.37%, net of fees), ranking in the 5th percentile, +9.28%, (+7.43%, net of fees), ranking in the 10th percentile, and +8.66% (+7.58, net of fees), ranking in the 26th percentile, respectively. Additional details on the markets and the System's investments are provided in the Investment Section.

## **Internal and Budgetary Controls**

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

## **Investment Policies and Strategies**

The Board of Trustees (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 included in the Investment Section is calculated using a time-weighted rate of return and is prepared internally by County staff using data from the System and its 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, 2022, the ratio of the market value of assets to total pension liabilities for benefits decreased from 90.20 percent to 81.75 percent. The actuarial section contains further information on the results of the June 30, 2022, valuation.

Based on the June 30, 2020, actuarial valuation, the employer contribution rate for 2022 following the adopted corridor-based funding policy rose to 46.04 percent. Working in concert with the County's Chief Financial Officer, the System's actuary (Cheiron) and other County staff, efforts continue to improve the funded status of the Plan. As a result of this work, and as referenced above, the County has increased the employer contribution rate above what was required by the adopted corridor-based funding policy for three consecutive years.

### **Major Initiatives**

During FY 2022, the Investment and Accounting Teams completed implementation of the Backstop investment backoffice software system; which is used to manage, analyze, and report on investments made with the system's investment managers.

Also, the Membership Services, Retiree Services, and Communications Teams completed the process of making all forms needed to apply for and receive retirement benefits fillable for electronic submission by members. These teams also began the planning process for implementation of a new or upgraded pension administration software application that will further improve and streamline submission of documents by members.

Finally, the Chief Investment Officer for the System continued to diversify the PORS portfolio with, among other investments, appropriately-sized small investments in blockchain technologies.

### **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 ACFR for the fiscal year ended June 30, 2021. This was the twelfth 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 ACFR. 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 ACFR 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, 2022, 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/](http://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 2,777 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 Annual Comprehensive  
Financial Report  
For the Fiscal Year Ended

June 30, 2021

*Christopher P. Morill*

Executive Director/CEO



Public Pension Coordinating Council

***Recognition Award for Funding  
2022***

Presented to

**Fairfax County Police Officers Retirement System**

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

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

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

A handwritten signature in cursive script, reading 'Alan H. Winkle'.

Alan H. Winkle  
Program Administrator

## Board of Trustees

Eight 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. Three 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.



**Rich Barron** - *President*  
Elected Member Trustee  
Term Expires: December 31, 2022



**James E. Krause** - *Vice President*  
Elected Member Trustee  
Term Expires: August 31, 2024



**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, 2026



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



**Jay A. Jupiter**  
Board of Supervisors Appointee  
Term Expires: December 31, 2025



**Edward C. O'Carroll**  
Elected Member Trustee  
Term Expires: December 31, 2024

**Administrative Organization**

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, United Kingdom
BlackRock, Inc	San Francisco, CA
Blockchain Capital	San Francisco, CA
Blue Owl Capital, Inc	New York, NY
Bridgewater Associates, LP	Westport, CT
Citadel Advisors, LLC	Chicago, IL
Coatue Management, LLC	New York, NY
Cohen & Steers Capital Management, Inc	New York, NY
Crabel Capital Management, Inc	Los Angeles, CA
Crestline Management	Fort Worth, TX
Czech Asset Management, LP	Old Greenwich, CT
DoubleLine Capital, LP	Los Angeles, CA
DWS	Chicago, IL
EJF Capital, LLC	Arlington, VA
First Eagle Investment Management	New York, NY
Frazier Healthcare Partners	Menlo Park, CA
Hoisington Investment Management, Co	Austin, TX
Kirkoswald Asset Management, LLC	New York, NY
Landmark Partners	Simsbury, CT
Lavrock Ventures	McLean, VA
Loomis, Sayles & Company, LLC	Boston, MA

**Investment Managers**

Man Asset Management, Ltd	London, United Kingdom
Marathon Asset Management, LP	New York, NY
Morgan Creek Capital Management, LLC	Chapel Hill, NC
Onyxpoint Global Management, LP	New York, NY
Parametric Portfolio Associates, LLC	Minneapolis, MN
Parataxis	New York, NY
PIMCO	Newport Beach, CA
Pinnacle Associates GP, LLC	New York, NY
Polychain Capital	San Francisco, CA
Prudential Global Investment Management	Newark, NJ
Red Tree Venture Capital	Redwood City, CA
Sands Capital Management, LLC	Arlington, VA
Section Partners	Palo Alto, CA
Solus Alternative Asset Management	New York, NY
Starboard Value, LP	New York, NY
The Hive	Palo Alto, CA
Two Sigma	New York, NY
Van Eck Securities Corporation	New York, NY
Verition	Greenwich, CT
WCM Investment Management	Laguna Beach, CA

**Professional Services**

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

Schedule of fees and schedule of commissions are located in the Investment Section, pages 66-67.

## Introductory Section

### Organization Chart



#### **Board of Supervisors**

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

#### **Board of Trustees**

*(Eight Members - see page 7)*

*Richard A. Barron, James E. Bitner, James R. Dooley, Jr., Brendan D. Harold,  
Jay A. Jupiter, James Krause, 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*





# FINANCIAL





**FINANCIAL**





## 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 Audit of the Financial Statements

#### **Opinion**

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, 2022, and the related notes to the financial statements, which comprise collectively the System's basic financial statements as listed in the table of contents.

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, 2022, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Basis for Opinions**

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. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are required to be independent of System, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Responsibilities of Management for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

**Auditor’s Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and, therefore, is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 System’s internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System’s ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

**Required Supplementary Information**

Accounting principles generally accepted in the United States of America require that the management’s discussion and analysis and required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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.

**Supplementary 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 accompanying other supplementary information as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The 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 other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

**Other Information**

Management is responsible for the other information included in the annual report. The other information comprises the introductory, investment, actuarial, and statistical sections but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

**Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated November 22, 2022, 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.



Tyson's Corner, Virginia  
November 22, 2022

**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, 2022. 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, 2022 and Statement of Changes in Fiduciary Net Position for the fiscal year ended June 30, 2022. 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.

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

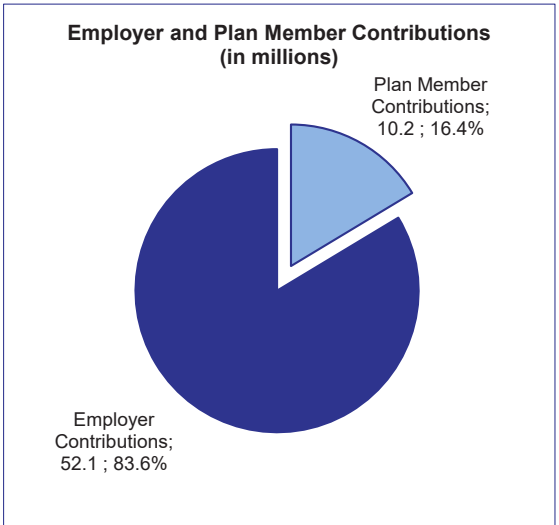
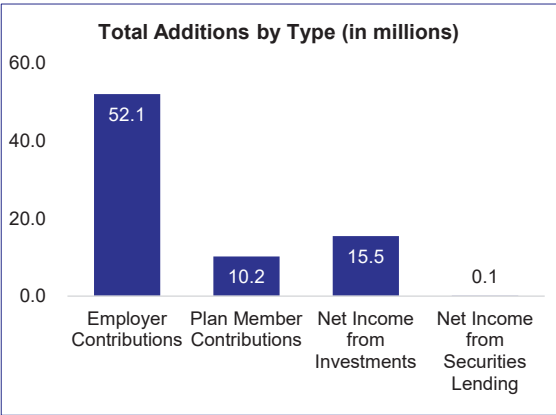
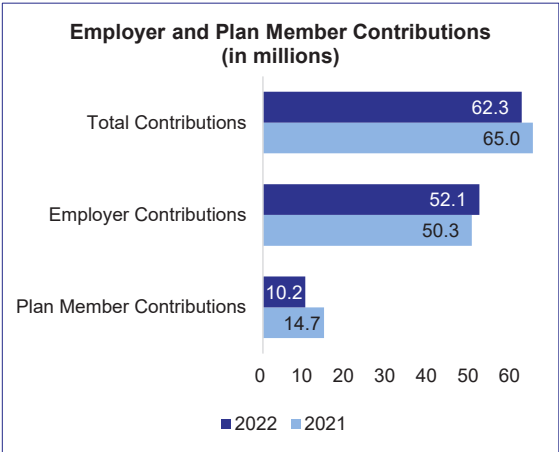
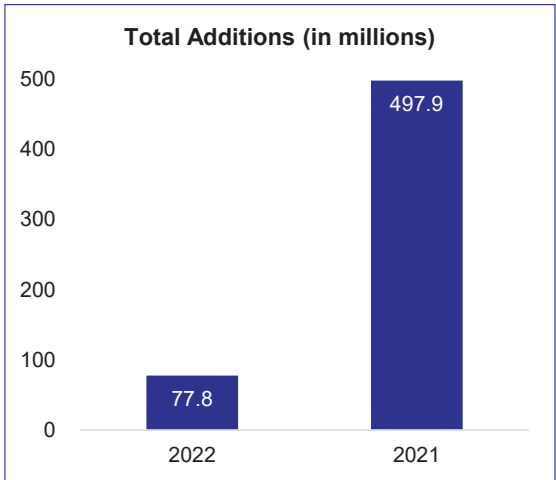
**Financial Highlights**

The net position restricted for pension benefits as of June 30, 2022, and June 30, 2021, was \$1,786.7 million and \$1,808.2 million, respectively. The net position restricted for pension benefits representing assets available to pay for current and future member pension benefits, decreased by \$21.5 million or 1.2 percent.

Total additions to fiduciary net position has decreased from \$497.9 million in fiscal year 2021 to \$77.8 million in 2022.

Net income from investments (excluding securities lending) decreased by 96.4 percent from \$432.8 million in 2021 to \$15.5 million in 2022. The net money-weighted rate of return on investments on a fair value basis was 0.94 percent in fiscal year 2022, and has decreased from 31.17 percent in fiscal year 2021.

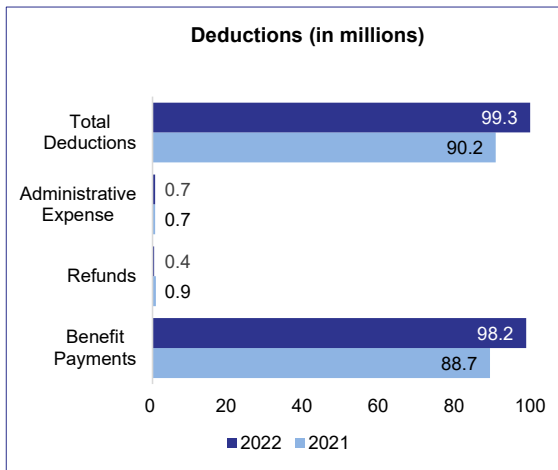
Employer and employee contributions received during the year totaled to \$62.3 million, a decrease of 4.2 percent or \$2.7 million compared to 2021 received contributions of \$65.0 million. The employer contributions increased by 3.4 percent from \$50.3 million in fiscal year 2021 to \$52.1 million in fiscal year 2022. The employee contributions decreased by 30.3 percent from 14.7 million in fiscal year 2021 to \$10.2 million in fiscal year 2022.



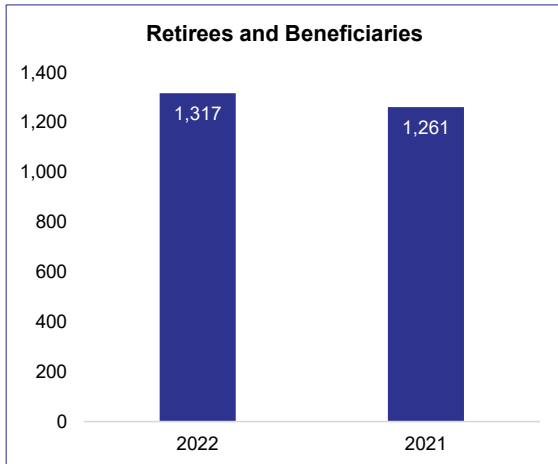
**Management’s Discussion and Analysis**  
(continued)

Total deductions from fiduciary net position increased by \$9.1 million from \$90.2 million in 2021 to \$99.3 million in 2022. Member retirement benefit payments of \$98.2 million in 2022 make up the majority of total deduction and increased by \$9.5 million or 10.7 percent from \$88.7 million in 2021. The number of retired members and beneficiaries receiving a benefit payment increased 4.4 percent from 1,261 to 1,317 payees as of June 30, 2022.

The net pension liability as calculated per Generally Accepted Accounting Principles in the United States of America (GAAP) as of June 30, 2022, and June 30, 2021, was \$398.9 million and \$196.5 million, respectively. The plan fiduciary net position as a percentage of total pension liability as of June 30, 2022, and June 30, 2021, was 81.75 percent and 90.20 percent, respectively. The net pension liability as a percentage of covered payroll has increased from 162.40 percent in fiscal year 2021 to 352.71 percent in fiscal year 2022. The covered payroll decreased from \$121.0 million in fiscal year 2021 to \$113.1 million in fiscal year 2022.



	2022	2021
Net Pension Liability (in millions)	\$398.9	\$196.5
Net Position as Percentage of TPL	81.75%	90.20%
Covered Payroll (in millions)	\$113.1	\$121.0
Net Pension Liability as Percentage of Covered Payroll	352.71%	162.40%





## Management's Discussion and Analysis

(continued)

### 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 2022, the fiduciary net position of the Police Officers Retirement System decreased 1.2 percent, resulting in a total fiduciary net position value of \$1,786.7 million, reflecting a decrease of \$21.5 million over fiscal year 2021.

Total assets as of June 30, 2022, was \$1,803.1 million, representing a decrease of \$29.7 million, or 1.6 percent over the previous fiscal year. The main component of the decrease was due to the 1.9 percent or \$34.7 million decrease in cash and investment, from \$1,809.0 million in fiscal year 2021 to \$1,774.3 million in fiscal year 2022 as a result of the unfavorable market conditions. The receivables increased by \$12.8 million or 125.1 percent.

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
2022	\$1,786.7	(\$21.5)	-1.2%
2021	1,808.2	407.6	29.1%

Summary of Plan Fiduciary Net Position				
Assets	2022	2021	Difference	Percentage of Change
Total Cash and Investments	\$1,774,295,930	\$1,809,039,821	(\$34,743,891)	-1.9%
Cash Collateral, Securities Lending	5,771,185	13,523,487	(7,752,302)	-57.3%
Capital Assets, net	9,280	8,661	619	7.1%
Total Receivables	<u>23,010,200</u>	<u>10,223,567</u>	<u>12,786,633</u>	125.1%
<b>Total Assets</b>	1,803,086,595	1,832,795,536	(29,708,941)	-1.6%
Liabilities				
Purchase of Investments	\$4,090,549	\$6,362,722	(\$2,272,173)	-35.7%
Cash Collateral, Securities Lending	5,771,185	13,523,487	(7,752,302)	-57.3%
Accounts Payables and Others	<u>6,486,740</u>	<u>4,719,784</u>	<u>1,766,956</u>	37.4%
<b>Total Liabilities</b>	<u>16,348,473</u>	<u>24,605,993</u>	<u>(8,257,520)</u>	-33.6%
<b>Net Position Restricted for Pension Benefits</b>	<u>\$1,786,738,122</u>	<u>\$1,808,189,543</u>	<u>(\$21,451,421)</u>	-1.2%

**Management's Discussion and Analysis**  
(continued)

Total liabilities as of June 30, 2022, were \$16.3 million, representing a decrease of \$8.3 million, or 33.6 percent, over the previous year. The decrease in total liabilities was the result of a decline in purchase of investments from \$6.4 million as of fiscal year 2021 to \$4.1 million as of fiscal year 2022. There was a 50.6 percent increase in accrued expenses, including the year-end accrual for management fees.

The total assets of \$1,803.1 million exceeded its liabilities of \$16.3 million at the close of the Plan year ended June 30, 2022 with \$1,786.7

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.

	2022	2021	Difference	Percentage of Change
Accrued Expenses (in thousands)	\$4,805.1	\$3,189.8	\$1,615.3	50.6%

Summary of Additions and Deductions				
	2022	2021	Difference	Percentage of Change
<b>Additions</b>				
Employer Contributions	\$52,066,100	\$50,348,130	\$1,717,970	3.4%
Plan Member Contributions	10,241,464	14,687,984	(4,446,520)	-30.3%
Net Income (Loss) from Investments	15,484,036	432,766,830	(417,282,794)	-96.4%
Net Income from Securities Lending	<u>51,439</u>	<u>67,652</u>	<u>(16,213)</u>	-24.0%
<b>Total Additions</b>	77,843,039	497,870,596	(420,027,557)	-84.4%
<b>Deductions</b>				
Benefit Payments	\$98,193,106	\$88,691,929	\$9,501,177	10.7%
Refunds	437,846	888,427	(450,581)	-50.7%
Administrative Expense	<u>663,508</u>	<u>665,628</u>	<u>(2,120)</u>	-0.3%
<b>Total Deductions</b>	<u>99,294,460</u>	<u>90,245,984</u>	<u>9,048,476</u>	10.0%
<b>Net Increase/(Decrease)</b>	<b><u>(\$21,451,421)</u></b>	<b><u>\$407,624,612</u></b>	<b><u>(\$429,076,033)</u></b>	-105.3%

	2022	2021	Difference	Percentage of Change
Dollars (in thousands)				
Interest	\$9,611.4	\$9,862.0	(\$250.5)	-2.5%
Dividends	<u>3,969.2</u>	<u>3,421.8</u>	<u>547.4</u>	16.0%
Total	<b><u>\$13,580.6</u></b>	<b><u>\$13,283.8</u></b>	<b><u>\$296.9</u></b>	2.2%

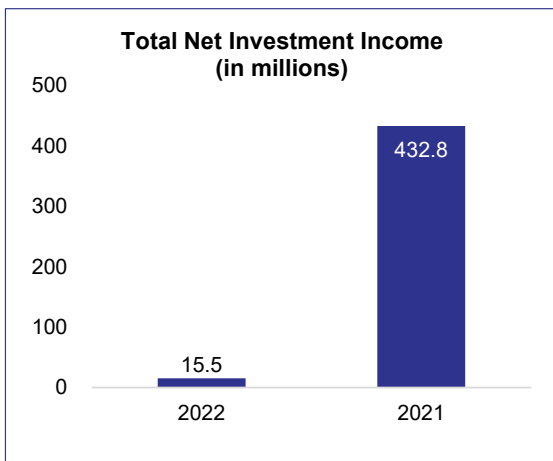
**Management’s Discussion and Analysis**  
(continued)

**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 \$420.0 million or 84.4 percent, attributed primarily due to a significant downturn in investment gains in fiscal year 2022 versus fiscal year 2021. The interest and dividend income experienced an increase of 2.2 percent. The significant decrease in total additions was due to the unfavorable market environment in fiscal year 2022.

Total contributions for the fiscal year ended June 30, 2022, amounted to \$62.3 million. This was a decrease of \$2.7 million when compared with the activity of fiscal year 2021. The employer contributions for fiscal year 2022 increased by 3.4 percent due to the increase in the actuarially determined contribution rate of 41.60 percent in fiscal year 2021 to 46.04 percent in fiscal year 2022. Employee contributions decreased by 30.3 percent due to the decrease in active membership and increase in terminations.

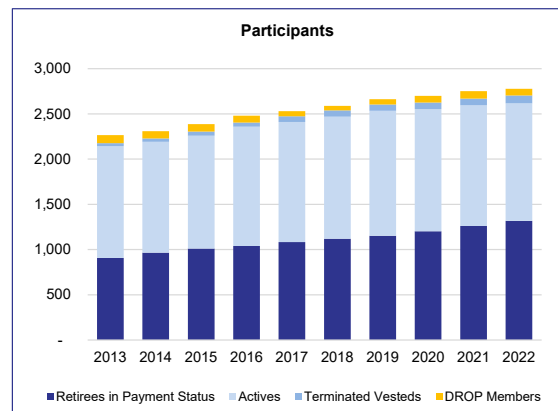
Investment returns had a huge downturn for fiscal year 2022, reflecting unfavorable returns in the capital markets. Total net investment income (including securities lending) decreased from \$432.8 million in fiscal year 2021 to \$15.5 million in fiscal year 2022, as a result of unfavorable investment performance.



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 2022 were \$99.3 million, an increase of \$9.0 million, or 10.0 percent, over fiscal year 2021.

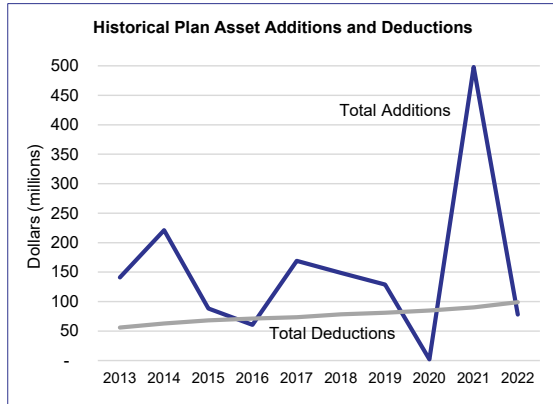
Regular pension benefit payments increased as the number of retirees and beneficiaries receiving benefit payments rose to 1,317 in fiscal year 2022 from 1,261 in fiscal year 2021. Benefit payments also increased due to a cost-of-living adjustment increase of 2.6 percent and higher average benefits for new retirees. Refunds reflected a 50.7 percent decrease due to less employees asking for refunds or lower balances of refunded amount.

Participant Count	2022	2021
Actives	1,299	1,335
DROP Members	73	82
Terminated Vesteds	88	73
Retirees and Beneficiaries in Payment Status	<u>1,317</u>	<u>1,261</u>
<b>Total</b>	<b><u>2,777</u></b>	<b><u>2,751</u></b>



Management’s Discussion and Analysis  
(continued)

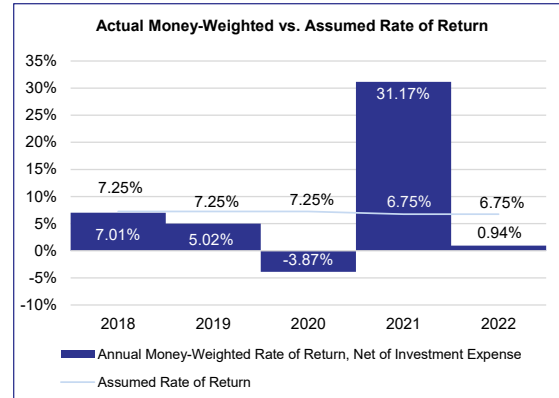
Historical additions to and deductions from fiduciary net position indicate a pattern of steadily increasing deductions as compared to fluctuating additions as a result of the unpredictable market environment.



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 decreased from 31.17 percent in fiscal year 2021 to 0.94 percent in fiscal year 2022.

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 decreased from 31.22 percent to 0.89 percent in fiscal year 2022.

The annual money-weighted rate of return of 0.94 percent did not exceed the assumed 6.75 percent rate of return, net of fees, for the year ended June 30, 2022.



An actuarial valuation is performed annually by Cheiron. The actuarial value of the assets as of the last valuation on June 30, 2022, was \$1,796.9 million, while actuarial liabilities as of the same period was \$2,185.6 million. As of June 30, 2022, the date of the most recent actuarial valuation, the funded ratio of the System was 82.21 percent. This was a decrease of 3.78 percent from the June 30, 2021, valuation funded ratio of 85.99 percent.

Under GAAP calculation, using the December 31, 2021, data rolled forward to June 30, 2022, the plan fiduciary net position as a percentage of the total pension liability was 81.75 percent. It decreased from 90.20 percent in fiscal year 2021, primarily as a result of the increase in the Total Pension Liability. The Total Pension Liability as of June 30, 2022, and June 30, 2021, was \$2,185.6 million and \$2,004.7 million, respectively.

## Management's Discussion and Analysis

(Dollars in millions)	<b>2022</b>	<b>2021</b>
Actuarial Accrued Liability	\$2,185.6	\$2,004.7
Actuarial Value of Assets	<u>1,796.9</u>	<u>1,723.8</u>
Unfunded Actuarial Liability	<u>\$388.7</u>	<u>\$280.9</u>
Funding Ratio	82.21%	85.99%
Total Pension Liability	\$2,185.6	\$2,004.7
Plan Fiduciary Net Position	<u>1,786.7</u>	<u>1,808.2</u>
Net Pension Liability	<u>\$398.9</u>	<u>\$196.5</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	81.75%	90.20%

### Contacting the System's Financial Management

This financial report is designed to provide our membership, the Board of Trustees and the County's Board of Supervisors with a general overview of the System's financial condition. If you have any questions about this report or need additional information, contact the Fairfax County Retirement System, 12015 Lee Jackson Memorial Highway, Fairfax, VA 22033. This report can also be found on the County's internet site at [www.fairfaxcounty.gov/retirement/](http://www.fairfaxcounty.gov/retirement/).

## Basic Financial Statements

## Statement of Fiduciary Net Position

As of June 30, 2022

**Assets**

## Cash and Short-Term Investments

Equity in County's Pooled Cash and Temporary Investments	\$2,028,253	
Cash Collateral Received for Securities on Loan	5,771,185	
Short-Term Investments	<u>38,652,667</u>	
Total Cash and Short-Term Investments		\$46,452,105

## Capital Assets

Building Improvements, net	5,254	
Equipment, net	<u>4,026</u>	
Total Capital Assets		9,280

## Receivables

Accounts Receivable	2,123,160	
Accrued Interest and Dividends	2,295,269	
Investment Proceeds and Other Receivables	<u>18,591,771</u>	
Total Receivables		23,010,200

## Investments, at Fair Value

Common Stock	159,898,969	
Preferred Securities	1,450,287	
Natural Resources	4,698,902	
Fixed Income		
Asset-Backed Securities	35,162,571	
Corporate Bonds	40,644,317	
International Bonds	4,131,287	
U.S. Government Obligations	63,091,159	
Pooled and Mutual Funds	<u>1,424,537,518</u>	
Total Investments		<u>1,733,615,010</u>
Total Assets		1,803,086,595

**Current Liabilities**

Investment Purchases and Other Liabilities	4,090,549	
Cash Collateral Received for Securities on Loan	5,771,185	
Accounts Payable and Accrued Expenses	6,403,387	
Compensated Absences, Short-Term	20,660	

**Noncurrent Liabilities**

Compensated Absences, Long-Term	<u>62,692</u>	
Total Liabilities		<u>(16,348,473)</u>

<b>Net Position Restricted for Pension Benefits</b>		<b><u>\$1,786,738,122</u></b>
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See accompanying notes to financial statements.

## Basic Financial Statements

## Statement of Changes in Fiduciary Net Position

For the Year Ended June 30, 2022

**Additions**

Contributions		
Employer	\$52,066,100	
Plan Members	<u>10,241,464</u>	
Total Contributions		\$62,307,564
Investment Income from Investment Activities		
Net Appreciation in Fair Value of Investments	29,551,009	
Interest	9,611,450	
Dividends	<u>3,969,221</u>	
Total Investment Income	43,131,680	
Investment Activity Expense		
Management Fees	(26,802,092)	
Custodial Fees	(104,587)	
Consulting Fees	(21,760)	
Allocated Administration Expense, Including Legal Fees	<u>(719,206)</u>	
Total Investment Expense	(27,647,645)	
Net Income from Investment Activities		15,484,035
Securities Lending Activities		
Total Securities Lending Income	79,174	
Total Securities Lending Expense	<u>(27,734)</u>	
Net Income from Securities Lending Activities		<u>51,440</u>
Total Net Investment Income		<u>15,535,475</u>
Total Additions		\$77,843,039

**Deductions**

Annuity Benefits	90,783,074	
Disability Benefits	1,423,522	
Survivor Benefits	5,986,510	
Refunds of Employee Contributions	437,846	
Administrative Expenses	<u>663,508</u>	
Total Deductions		<u>99,294,460</u>
Net Decrease		(21,451,421)
Net Position Restricted for Pension Benefits		
Beginning of Fiscal Year		<u>1,808,189,543</u>
<b>End of Fiscal Year</b>		<b><u>\$1,786,738,122</u></b>

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, 2022, 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.



## Notes on Financial Statements

(continued)

### 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 2022 Beginning Balance	\$79,658
Leave Earned	30,160
Leave Used	<u>26,464</u>
FY 2022 Ending Balance	<u>\$83,352</u>
Due Within One Year	\$20,660

## 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 46.04 percent for fiscal year 2022. 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.

**Notes on Financial Statements**  
(continued)

*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 \$2,460.39 for the spouse or surviving handicapped child (if there is no spouse), plus each eligible child receives \$984.15 up to a maximum total family benefit of \$4,920.79 (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**

Eight 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. Three of the members are elected by Fairfax County Government Employees, and one of the members is elected by retirees. The Director of Finance also serves as an Ex Officio member.

**C. Membership**

At June 30, 2022, the date of the latest actuarial valuation, membership in the System consisted of:

Retirees and Beneficiaries Receiving Benefits	1,317
Terminated Vesteds	88
Deferred Retirement Option Program (DROP) Participants	73
Active Plan Members	<u>1,299</u>
<b>Total</b>	<b><u>2,777</u></b>

**D. Deferred Retirement Option Program**

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

## Notes on Financial Statements

(continued)

or as an addition to the monthly retirement annuity. The DROP balance as of June 30, 2022, was \$9.8 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, 2022. The County is required to contribute at an actuarially determined rate; the rate for the year ended June 30, 2022, was 46.04 percent of annual covered payroll. Total contributions for the fiscal year ended June 30, 2022, amounted to \$62.3 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, 2022, amounted to \$99.3 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, 2022. 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%

Notes on Financial Statements  
(continued)

**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, 2022, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 0.94 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	6/30/2022	Quoted Prices	Significant	Significant
		in Active	Other	Unobservable
		Markets	Observable	Inputs
		for Identical	Inputs	Inputs
		Assets	Level 2	Level 3
		Level 1		
Asset-Backed Securities	\$35,162,571	\$ -	\$16,029,292	\$19,133,279
Convertible or Exchangeable Securities	2,363,597		2,363,597	-
Convertible Securities	37,476	37,476	-	-
Corporate and Other Bonds	38,243,244	31,331,716		6,911,528
International Bonds	4,131,287	-	4,131,287	-
Equity	159,898,969	124,652,078	-	35,246,891
Natural Resources	4,698,902	-	-	4,698,902
Preferred Securities	1,450,287	1,123,447	326,840	-
U.S. Government Obligations	63,091,159	-	63,091,159	-
	<b><u>\$309,077,492</u></b>	<b><u>\$157,144,717</u></b>	<b><u>\$85,942,175</u></b>	<b><u>\$65,990,600</u></b>
<b>Investments Measured at Net Asset Value (NAV)</b>				
Absolute Return*	\$340,897,414			
Global Equity*	401,016,762			
Global Fixed Income*	346,068,883			
Global Multi-Asset*	204,748,253			
Global Real Assets*	131,806,206			
	<b><u>\$1,424,537,518</u></b>			
<b>Investments Measured at the Amortized Cost</b>				
Short Term	<b><u>\$38,652,667</u></b>			
<b>Total Investments</b>	<b><u>\$1,772,267,677</u></b>			

\*Pooled funds

Investments Measured at NAV				
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Absolute Return	\$340,897,414	\$15,000,000	Monthly, Quarterly	3 - 90 days
Global Equity	401,016,762	164,748,729	Daily, Monthly, Quarterly, None	3 - 90 days
Global Fixed income	346,068,883	85,130,087	Daily, Semi-Annually, None	5 - 90 days
Global Multi-Asset	204,748,253	-	Monthly	15 - 90 Days
Global Real Assets	131,806,206	35,742,026	Daily, None	3- 20 days
<b>Total Investments Measured at NAV</b>	<b><u>\$1,424,537,518</u></b>	<b><u>\$300,620,842</u></b>		

## Notes on Financial Statements

(continued)

*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 and then uses tactical asset allocation to capture and ride market trends. The Fund is a diversified portfolio with exposure to currencies, commodities, bonds and short interest rates, and equity indices at various times. These exposures are typically achieved using derivatives which allows quick response because of the high liquidity in the derivative markets. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments. The third one is a short-term systematic global macro CTA and is unique vs. other systematic macro hedge funds. Such short-term 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.

## Event Driven:

This type includes one hedge fund. 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.

## Relative Value/Multi-Strategy:

This type includes four hedge funds. The first fund is a multi-strategy hedge fund which deploys capital across a range of asset classes, investment strategies and geographies. The five core investment strategies are: Equities, Credit, Fixed Income & Macro, Commodities, and Quantitative. The second fund is a market neutral multi-strategy fund whose return stream should be largely uncorrelated to the broader markets. The third fund is a relative value hedge fund which 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. The fourth fund is a multi-strategy investment firm focused on the digital asset sector, which employs an active, long/short approach – thereby reducing the volatility of a long-only, passive investment.

*Global Equity.*

## U.S. Equities:

This type includes one hedge fund and twenty-one private funds. The hedge fund 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

## Notes on Financial Statements

(continued)

company and then force management to enact the changes they feel are necessary for a turnaround. The fair value has been determined by using NAV per share (or its equivalent) of the investments.

The first and second private funds focus 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 funds invest 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 seeks to generate superior returns through the long-term capital appreciation of venture capital investments primarily structured as equity and equity-related investments in early stage blockchain technology companies and associated digital assets, including digital currencies, tokens, and other blockchain-based assets.

The sixth and seventh fund focuses on the underlying blockchain technology, its many other industry uses, and the infrastructure for crypto currency markets (index rights, wallet, settlement, and custody platforms, etc.). Additionally, the fund seeks to invest in Artificial Intelligence technologies that act in concert with Blockchain technologies.

The eighth fund will seek to invest in early-stage operating companies, which are developing technologies that are poised for broad adoption in finance, such as real-time payments, digital assets, banking-as-a-service, regtech (fraud prevention, AML / KYC, compliance), and AI-based credit decisioning.

The ninth fund is an early-stage venture capital fund focusing on pre-seed

and Series A financing rounds in the blockchain technology space.

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

The fourteenth fund targets highly innovative private hyper growth businesses that can become substantial public franchises. These businesses have a high prospect of sustainable earnings growth; financial strength with attractive downside protection rights; and rational valuation relative to business prospects.

The fifteenth fund is a venture debt strategy that seeks to generate attractive risk-adjusted returns by providing proprietary financing solutions to stockholders of venture capital (VC)-backed companies. Ample collateral coverage ratio—generally 3x.

The sixteenth fund seeks to make minority investments in early-stage, emerging technology businesses in dynamic, high-growth markets. They are focused on businesses that are enabling and building on rapid digitalization and continued advancements in computing power that have the potential to drastically change the way we work and live.

The seventeenth fund is a healthcare-focused private equity firms. Investing in building therapeutics companies developing novel products for patients.

Notes on Financial Statements  
(continued)

The eighteenth fund is an early-stage biased life sciences portfolio with an emphasis on sourcing innovation from Stanford University.

The nineteenth fund is an early-stage that uses the lens of National Security community to identify best-of-breed commercial technology. Investment focus on enterprise software, data/analytics, deep tech – through a National Security lens.

The twentieth fund is a venture studio that is positioned very early on in the idea generation and company formation phase of the equity value creation chain in technology.

The twenty-first fund makes select direct equity investments alongside its sister venture debt fund.

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 fund 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 four public debt funds and fifteen private debt funds. The first 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 second fund uses a macroeconomic approach for fixed income management. The firm places all its efforts on the correct duration/maturity, which has generated the firm's advantage over the indices. The firm invests in U.S. Treasury securities only. The third fund is a strategy which provides liquidity to centralized and decentralized exchanges in return for a yield. The fourth fund's strategy lend to regulated crypto institutions at attractive interest rates with low volatility due to: (i) a shortage of connections between traditional sources of capital and the crypto system and (ii) the lack of established credit ratings for these newer crypto institutions.

The private debt funds provide broad exposure to Direct Lending as well as Opportunistic Credit.

Direct Lending:

The private debt funds provide broad exposure to Direct Lending as well as Opportunistic Credit.

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.

*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,



## Notes on Financial Statements

(continued)

deflation, high growth, and low growth periods. This is achieved using derivatives and liquid long positions across multiple asset classes. The fair values of the investments in this type have been determined using NAV per share (or its equivalent) of the investments.

### *Global Real Assets.*

This type includes six 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. The second fund purchases interests in other private real estate funds on the secondary market. The third fund is a hybrid private and public equity strategy focused on technology

companies believed to be disrupting the transportation, logistics, and infrastructure complex. The fourth fund owns and operates the real estate, infrastructure and inventory of a cattle feeding operation. 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 fifth fund seeks to capture value in the commodity supply chain through hedged physical trading/arbitrage as well as merchanting activities. The sixth fund specializes in the energy sector and seeks to generate superior returns by applying their flexible strategy of investing long and short across the capital structure and liquidity spectrum in distressed investments, special situations opportunities, asset build-ups and private equity transactions.

### **E. Sensitivity to Interest Rate Risk**

The System's investments' sensitivity to interest rates at June 30, 2022, were as follows:

Investment Type	Fair Value	Option Adjusted Duration (yrs)	Percentage of Fixed
Asset-Backed Securities	\$35,162,571	4.2	24.6%
Corporate Bonds	40,644,317	3.3	28.4%
International Bonds	4,131,287	2.1	2.9%
U.S. Government Obligations	<u>63,091,159</u>	12.1	<u>44.1%</u>
<b>Total Fixed Income</b>	<b><u>\$143,029,334</u></b>	7.4	<b><u>100.0%</u></b>
<b>Short-Term Investments</b>			
Cash and Cash Equivalents	\$4,908,214	0.0	
Police STIF*	32,380,130	0.1	
U.S. Treasury Bill	<u>1,364,323</u>	0.2	
<b>Total Short-Term Investments</b>	<b><u>\$38,652,667</u></b>		
*Short-Term Investment Funds			

The duration of the System's overall fixed income portfolio excluding pooled funds was 7.4 years for the separately managed accounts. The Barclays Capital Aggregate Bond Index (BCAG) established option-adjusted duration was 6.53 years.

### **F. Short-term Investments**

The short-term investments of \$38.7 million includes a position of \$32.4 million of commingled cash held by our investment managers and cash held by the System in an enhanced short-term investment fund managed by BlackRock.

## Notes on Financial Statements

(continued)

### G. Quality Ratings

The System's investment quality ratings at June 30, 2022, for the separately managed fixed income accounts, were as follows:

Type of Investment	Fair Value	Ratings	Percentage of Fixed
U.S. Government Obligations	\$63,091,159		44.1%
Asset-Backed Securities	4,433,418	AA	3.1%
	53,676	A	0.0%
	1,031,696	BBB	0.7%
	4,058,412	BB	2.9%
	1,043,388	B	0.7%
	662,626	CC	0.5%
	534,965	D	0.4%
	23,344,390	Unrated	16.3%
Corporate and Other Bonds	59,501	AA	0.0%
	632,974	BBB	0.4%
	12,266,891	BB	8.6%
	16,171,243	B	11.3%
	6,346,857	CCC	4.5%
	31,585	CC	0.0%
	83,617	D	0.1%
5,051,649	Unrated	3.5%	
International Bonds	236,161	BBB	0.2%
	310,000	BB	0.2%
	1,162,371	B	0.8%
	<u>2,422,755</u>	Unrated	<u>1.7%</u>
<b>Total Fixed Income</b>	<b><u>\$143,029,334</u></b>		<b><u>100.0%</u></b>
<b>Short-Term Investments</b>			
Cash and Cash Equivalents	\$4,908,214	Unrated	
Police STIF*	32,380,130	Unrated	
U.S. Treasury Bill	<u>1,364,323</u>	Unrated	
<b>Total Short-Term Investments</b>	<b><u>\$38,652,667</u></b>		
*Short-Term Investment Funds			

As of June 30, 2022, the fixed income portfolio, excluding pooled funds, consisted of 48.5 percent invested in investment grade securities, 30.0 percent invested in securities rated below-investment-grade, and 21.5 percent invested in unrated securities.

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

**Notes on Financial Statements**  
(continued)

**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, 2022, held in currencies other than U.S. dollars were as follows:

<b>International Securities</b>	<b>Short-Term Investments &amp; Other</b>	<b>Convertible &amp; Fixed Income</b>	<b>Equity</b>	<b>Total</b>
Australian Dollar	\$ -	\$ -	\$2,734,330	\$2,734,330
Brazil Real	629	-	365,091	365,720
Canadian Dollar	(60,628)	1,162,371	3,614,934	4,716,677
Colombian Peso	-	231,116	-	231,116
Danish Krone	-	-	1,568,462	1,568,462
Euro Currency Unit	1,702	-	17,531,999	17,533,701
Hong Kong Dollar	892	-	7,390,548	7,391,440
Indian Rupee	1,453	-	-	1,453
Indonesian Rupiah	-	69,307	-	69,307
Japanese Yen	17,021	-	15,171,068	15,188,090
Malaysian Ringgit	-	217,492	-	217,492
Mexican Peso	-	361,781	215,731	577,512
Norwegian Krone	-	-	740,381	740,381
Peruvian Sol	-	88,590	-	88,590
Polish Zloty	-	-	-	-
Pound Sterling	167	-	10,800,412	10,800,579
Singapore Dollar	-	367,781	3,212,637	3,580,417
South Korean Won	-	238,711	1,887,004	2,125,715
Swedish Krona	976	-	2,936,129	2,937,105
Swiss Franc	1,042	-	5,973,656	5,974,698
Thailand Baht	-	-	388,222	388,222
Turkish Lira	-	-	90,823	90,823
<b>Grand Total</b>	<b>(\$36,745)</b>	<b>\$2,737,148</b>	<b>\$74,621,426</b>	<b>\$77,321,828</b>

**Notes on Financial Statements**  
(continued)**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, 2022, 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.

## Notes on Financial Statements

(continued)

The notional value of the System's investment in futures contracts at June 30, 2022, were as follows:

<b>Types of Futures</b>	<b>Base Exposure</b>	<b>Notional Cost</b>
Cash and Cash Equivalents		
Short	(\$67,149,561)	(\$68,524,326)
Equity		
Long	130,672,895	129,544,093
Short	(53,460,400)	(55,364,942)
Fixed Income Securities		
Long	83,564,531	84,748,690
Commodity		
Long	<u>111,981,566</u>	<u>118,504,205</u>
<b>Total</b>	<b><u>\$205,609,031</u></b>	<b><u>\$208,907,720</u></b>

### *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, 2022:

<b>Fixed Income Securities</b>	<b>Fair Value</b>	<b>Base Exposure</b>
Cleared Credit Default Swaps	\$1,084,140	\$1,034,145
Cleared Interest Rate Swaps	—	18
<b>Total</b>	<b><u>\$1,084,140</u></b>	<b><u>\$1,034,162</u></b>

### *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, 2022:

**Notes on Financial Statements**  
(continued)

<b>Foreign Currency Contracts Purchased</b>	<b>Notional (Local Currency)</b>	<b>Cost</b>	<b>Fair Value Payable in U.S. Dollars</b>	<b>Unrealized Gain/(Loss)</b>
Euro Currency Unit	(\$444,000)	(\$482,810)	(\$464,664)	\$18,146
Pound Sterling	(304,000)	<u>(378,366)</u>	<u>(369,393)</u>	<u>8,973</u>
		<u>(\$861,176)</u>	<u>(\$834,057)</u>	\$27,119
<b>Foreign Currency Contracts Sold</b>	<b>Notional (Local Currency)</b>	<b>Cost</b>	<b>Fair Value Receivable in U.S. Dollars</b>	<b>Unrealized Gain/(Loss)</b>
Euro Currency Unit	\$444,000	\$461,991	\$464,664	\$2,673
Pound Sterling	38,000	<u>46,349</u>	<u>46,161</u>	<u>(189)</u>
		<u>\$508,340</u>	<u>\$510,825</u>	<u>\$2,484</u>
<b>Net Unrealized Gain/(Loss) on Foreign Currency Spot and Forward Contracts</b>				<b><u>\$29,603</u></b>

**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 2022 on the amounts of loans the lending agent made on its behalf. At June 30, 2022, 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, 2022, 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, 2022:

<b>Securities Lent</b>	<b>Underlying Securities</b>	<b>Cash Collateral Investment Value</b>	<b>Securities Collateral Investment Value</b>
Lent for Cash Collateral			
Corporate and Other Bonds	\$2,705,284	\$2,784,145	
Common and Preferred Stock	2,872,768	2,987,040	
Lent for Securities Collateral			
U.S. Government Securities	1,492,429	-	\$1,854,173
Common and Preferred Stock	<u>10,564,234</u>	<u>-</u>	<u>11,882,079</u>
<b>Total Securities Lent</b>	<b><u>\$17,634,715</u></b>	<b><u>\$5,771,185</u></b>	<b><u>\$13,736,252</u></b>

## Notes on Financial Statements

(continued)

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

#### A. Net Pension Liability

The components of the net pension liability at June 30, 2022, were as follows:

Total Pension Liability	\$2,185,608,626
Plan Fiduciary Net Position	<u>1,786,738,122</u>
Net Pension Liability	<u>\$398,870,504</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	81.75%

#### B. Actuarial Methods and Assumptions

The Total Pension Liability was determined by an actuarial valuation as of June 30, 2022, 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	6.75%
Inflation	2.25%
Salary Increase; Including Inflation	2.25% + merit
Investment Rate of Return, Net of Plan Investment Expenses	6.75%
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 study presented at a Board meeting on September 9, 2021.

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, 2022, was 46.04 percent of annual covered payroll which was adopted for fiscal year 2022.

Mortality rates with adjustments for mortality improvements were based on 100% of the PubS-2010 Healthy Annuitant Head-Count Weighted Mortality Table for males and females for participants (non beneficiary/survivor) and 100% of the PubG-2010 Healthy Annuitant Head-Count Weighted Mortality table for beneficiaries projected using the MP-2020 model, with an ultimate rate of 0.85% for ages 20- 80 grading down to an ultimate rate of 0% for ages 114-120 and convergence to the ultimate rate in the year 2027. Twenty percent of pre-retirement deaths are assumed to be service-connected.

The actuarial assumptions used in the June 30, 2022, valuation were based on the results of an actuarial experience study for the period July 1, 2015 to June 30, 2020.

#### 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

**Notes on Financial Statements**  
(continued)

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, 2022, are summarized below.

<b>Asset Class</b>	<b>Long Term Expected Real Rate of Return</b>
Absolute Return	7.0%
Core Fixed Income	1.8%
High Yield	4.3%
International Developed Mkt. Equities	4.4%
International Emerging Mkt. Equities	6.9%
Real Assets	4.7%
Risk Parity	6.0%
U.S. Equity	4.7%
Gold	0.0%

**D. Discount Rate**

The discount rate used to measure the total pension liability was 6.75 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 2022 actuarial valuation. The administrative expenses attributable to current actives were assumed to equal 0.50 percent of covered payroll. The inflows to the plan were assumed to continue at the member rate for the 2022 active population of 8.65 percent of payroll and County contributions were projected at 46.04 percent for fiscal year 2023 and increasing to 53.08 percent through 2033. After that time, the County contribution is assumed to decrease to the normal cost, plus expenses (19.55 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 6.75 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 (5.75 percent) or 1-percentage-point higher (7.75 percent) than the current rate.

<b>Sensitivity of Net Pension Liability</b>			
	<b>1% Decrease 5.75%</b>	<b>Discount Rate 6.75%</b>	<b>1% Increase 7.75%</b>
Total Pension Liability	\$2,491,553,726	\$2,185,608,626	\$1,936,045,804
Plan Fiduciary Net Position	<u>1,786,738,122</u>	<u>1,786,738,122</u>	<u>1,786,738,122</u>
Net Pension Liability	<u>\$704,815,604</u>	<u>\$398,870,504</u>	<u>\$149,307,682</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	71.71%	81.75%	92.29%



**Notes on Financial Statements**

**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 Collective Net Pension Liability and Related Ratios			
	Year Ended June 30			
	2022	2021	2020	2019
Total Pension Liability				
Service Cost (MOY)	\$35,635,025	\$32,981,351	\$32,943,754	\$31,993,668
Interest (includes interest on service cost)	134,450,755	133,440,709	128,460,867	123,663,623
Changes of Benefit Terms	-	-	-	-
Differences Between Expected and Actual Experience	109,415,554	20,396,361	(5,784,619)	(7,959,490)
Changes in Assumptions	-	55,913,508.00	-	-
Benefit Payments, Including Refunds of Member Contributions	<u>(98,630,952)</u>	<u>(89,580,356)</u>	<u>(84,449,652)</u>	<u>(80,576,131)</u>
Net Change in Total Pension Liability	180,870,382	153,151,573	71,170,350	67,121,670
Total Pension Liability - Beginning	<u>2,004,738,244</u>	<u>1,851,586,671</u>	<u>1,780,416,321</u>	<u>1,713,294,651</u>
Total Pension Liability - Ending (a)	<u>\$2,185,608,626</u>	<u>\$2,004,738,244</u>	<u>\$1,851,586,671</u>	<u>\$1,780,416,321</u>
Plan Fiduciary Net Position				
Contributions - Employer	\$52,066,100	\$50,348,130	\$50,781,403	\$47,182,840
Contributions - Member	10,241,464	14,687,984	10,570,158	10,176,811
Net Investment Income	15,535,475	432,834,482	(59,355,354)	71,578,489
Benefit Payments, Including Refunds of Member Contributions	(98,630,952)	(89,580,356)	(84,449,652)	(80,576,131)
Administrative Expenses	<u>(663,508)</u>	<u>(665,628)</u>	<u>(655,945)</u>	<u>(610,711)</u>
Net change in Plan Fiduciary Net Position	(\$21,451,421)	\$407,624,612	(\$83,109,390)	\$47,751,298
Plan Fiduciary Net Position - Beginning	<u>1,808,189,543</u>	<u>1,400,564,931</u>	<u>1,483,674,321</u>	<u>1,435,923,023</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$1,786,738,122</u>	<u>\$1,808,189,543</u>	<u>\$1,400,564,931</u>	<u>\$1,483,674,321</u>
Net Pension Liability - Ending (a)-(b)	<u>\$398,870,504</u>	<u>\$196,548,701</u>	<u>\$451,021,740</u>	<u>\$296,742,000</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	81.75%	90.20%	75.64%	83.33%
Covered Payroll	<u>\$113,088,836</u>	<u>\$121,029,159</u>	<u>\$122,070,680</u>	<u>\$117,662,943</u>
Net Pension Liability as a Percentage of Covered Payroll	352.71%	162.40%	369.48%	252.20%

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.

**Required Supplementary Information**  
(continued)

	Schedule of Changes in Collective Net Pension Liability and Related Ratios				
	Year Ended June 30				
	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost (MOY)	\$30,743,227	\$29,051,739	\$30,913,269	\$30,389,897	\$30,858,609
Interest (includes interest on service cost)	118,405,143	112,637,566	110,362,493	106,739,905	102,492,490
Changes of Benefit Terms	-	-	-	-	-
Differences Between Expected and Actual Experience	1,315,247	11,638,382	(30,820,874)	(11,515,790)	-
Changes in Assumptions	-	-	9,895,400	-	-
Benefit Payments, Including Refunds of Member Contributions	<u>(77,838,367)</u>	<u>(73,175,998)</u>	<u>(70,749,811)</u>	<u>(67,757,160)</u>	<u>(62,287,705)</u>
Net Change in Total Pension Liability	72,625,250	80,151,689	49,600,477	57,856,852	71,063,394
Total Pension Liability - Beginning	<u>1,640,669,401</u>	<u>1,560,517,712</u>	<u>1,510,917,235</u>	<u>1,453,060,383</u>	<u>1,381,996,989</u>
Total Pension Liability - Ending (a)	<u>\$1,713,294,651</u>	<u>\$1,640,669,401</u>	<u>\$1,560,517,712</u>	<u>\$1,510,917,235</u>	<u>\$1,453,060,383</u>
Plan Fiduciary Net Position					
Contributions - Employer	\$44,504,675	\$43,381,151	\$40,646,884	\$37,867,181	\$34,178,960
Contributions - Member	9,895,922	9,631,618	9,324,066	8,889,931	10,091,331
Net Investment Income	94,134,740	116,099,350	10,764,028	41,601,153	176,683,610
Benefit Payments, Including Refunds of Member Contributions	<u>(77,838,367)</u>	<u>(73,175,998)</u>	<u>(70,749,811)</u>	<u>(67,757,160)</u>	<u>(62,287,705)</u>
Administrative Expenses	<u>(618,207)</u>	<u>(481,574)</u>	<u>(510,544)</u>	<u>(443,230)</u>	<u>(431,064)</u>
Net change in Plan Fiduciary Net Position	\$70,078,763	\$95,454,547	(\$10,525,377)	\$20,157,875	\$158,235,132
Plan Fiduciary Net Position - Beginning	<u>1,365,844,260</u>	<u>1,270,389,713</u>	<u>1,280,915,090</u>	<u>1,260,757,215</u>	<u>1,102,522,083</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$1,435,923,023</u>	<u>\$1,365,844,260</u>	<u>\$1,270,389,713</u>	<u>\$1,280,915,090</u>	<u>\$1,260,757,215</u>
Net Pension Liability - Ending (a)-(b)	<u>\$277,371,628</u>	<u>\$274,825,141</u>	<u>\$290,127,999</u>	<u>\$230,002,145</u>	<u>\$192,303,168</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	83.81%	83.25%	81.41%	84.78%	86.77%
Covered Payroll	<u>\$114,173,102</u>	<u>\$111,290,793</u>	<u>\$107,021,811</u>	<u>\$102,844,055</u>	<u>\$100,912,194</u>
Net Pension Liability as a Percentage of Covered Payroll	242.94%	246.94%	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)

<b>Schedule of Net Pension Liability</b>						
<b>Year Ended June 30</b>	<b>Total Pension Liability</b>	<b>Plan Fiduciary Net Position</b>	<b>Net Pension Liability</b>	<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<b>Covered Payroll</b>	<b>Net Pension Liability as a Percentage of Covered Payroll</b>
2022	\$2,185,608,626	\$1,786,738,122	\$398,870,504	81.75%	\$113,088,836	352.71%
2021	2,004,738,244	1,808,189,543	196,548,701	90.20%	121,029,159	162.40%
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.

<b>Schedule of Money-Weighted Rate of Return</b>	
<b>Fiscal Year</b>	<b>Annual Money-Weighted Rate of Return, Net of Investment Expense</b>
2022	0.94%
2021	31.17%
2020	-3.87%
2019	5.02%
2018	7.01%
2017	9.31%
2016	0.87%
2015	3.36%
2014	16.20%
2013	9.50%

**Required Supplementary Information**  
(continued)

**Schedule of Collective Employer Contributions**

<b>Fiscal Year</b>	<b>Actuarially Determined Contributions</b>	<b>Contributions in Relation to the Actuarially Determined Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll</b>	<b>Contributions as a Percentage of Covered Payroll</b>
2022	\$52,066,100	\$52,066,100	-	\$113,088,836	46.04%
2021	50,348,130	50,348,130	-	121,029,159	41.60%
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%

**Notes to Schedule**

Valuation Date	June 30, 2020
Timing	Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year
<u>Key Methods and Assumptions Used to Determine Contribution Rates:</u>	
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, 2022 can be found in the June 30, 2020 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:

<b>Contribution Rates</b>		
<b>Fiscal Year</b>	<b>Employer</b>	<b>Employee</b>
2022	46.04%	8.65%
2021	41.60%	8.65%
2020	41.60%	8.65%
2019	40.10%	8.65%
2018	38.98%	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.

## Other Supplementary Information

**Schedule of Investment and Consultant Expenses**

For the Year Ended June 30, 2022

Investment Manager Fees		
Absolute Return		\$11,029,781
Global Equity		6,754,568
Global Fixed Income		4,473,426
Global Multi-Asset		2,390,677
Global Real Assets		1,825,274
Short Term and Others		328,366
Fees Related to Securities Lending		27,734
Custodial Fees		104,587
Consultant Expenses		21,760
Investment Related Legal Fees		289,884
Allocated Administration Expense		<u>429,322</u>
<b>Total Investment and Consultant Expenses</b>		<b><u>\$27,675,379</u></b>

**Schedule of Administrative Expenses**

For the Year Ended June 30, 2022

Personnel Services		
Salaries and Wages	\$354,328	
Fringe Benefits	<u>149,224</u>	
Total Personnel Services		\$503,552
Professional Services		
Actuarial	35,918	
Audit	6,849	
Legal	<u>2,241</u>	
Total Professional Services		45,008
Communications		
Phone Charges	3,504	
Printing, Binding and Copying	1,383	
Postage	<u>3,898</u>	
Total Communications		8,785
Supplies		
Office Supplies	<u>423</u>	
Total Supplies		423
Other Services and Charges		
Staff Travel and Development	135	
Professional Membership	988	
Professional Subscription	3,229	
Insurance	5,000	
Building Rent	32,955	
Depreciation Expense	639	
Computer System	46,424	
Other Operating	<u>16,370</u>	
Total Other Services and Charges		<u>105,740</u>
<b>Total Administrative Expenses</b>		<b><u>\$663,508</u></b>



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

To 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, 2022 and the related notes to the financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated November 22, 2022.

**Report on 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 or significant deficiencies may exist that have not been identified.



**Report on 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.



Tysons Corner, Virginia  
November 15, 2021

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# INVESTMENT





# INVESTMENT





## County of Fairfax, Virginia

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

October 3, 2022

Dear Members of the Board of Trustees:

Major global equity indexes declined for the fiscal year ended June 2022, posting negative returns in domestic, international, and emerging markets. U.S. equity markets (as measured by the S&P 500 Index) ended with negative returns, with the S&P 500 Index ending the fiscal year with a one-year return of -10.6%. Within the U.S. stock market, small cap stocks (as measured by the Russell 2000 Index) underperformed large cap stocks, posting a one-year return of -23.4%. Developed international equity markets (as measured by the MSCI EAFE Index) ended FY2022 with a 12-month return of -17.8%. The MSCI Emerging Markets Index ended the fiscal year with a one-year return of -25.3%. As headline inflation rose to a 40-year high of 9.1%, the U.S. Federal Reserve raised its benchmark interest rate from a range of 0.00% - 0.25% at the end of FY2021 to a range of 1.5% - 1.75% by the end of FY2022, with an additional 0.75% rate hike in both July and September 2022. In addition, the U.S. central bank began a quantitative tightening program in June, with the intention of reducing its \$9 trillion in balance sheet assets. In response, the 10-year U.S. Treasury yield rose from 1.45% to 2.98% over fiscal year, which was a headwind for the U.S. investment grade bond market. The Bloomberg U.S. Aggregate Index ended the fiscal year down -10.3%, with the Bloomberg U.S. Treasury Index down -8.9% for the trailing 12-month period ending June 30, 2022. The U.S. high yield bond market (as measured by the Bloomberg US High Yield Index) posted a return of -12.8% over the same period. In real assets, commodities continued their rebound off calendar year 2020 lows with the Bloomberg Commodities Index posting one-year gains of +24.3% and WTI crude oil prices rising 43.9% since June 30, 2021.

Global equities turned in a mixed performance for the three months ended September 30, 2021, rounding out the quarter with a streak of volatility as inflationary pressures fueled concerns around economic growth and tapering of monetary stimulus. U.S. equities were modestly positive in the third quarter of calendar year 2021, with the S&P 500 Index up 0.6%; international developed markets posted a moderate loss of 0.4%. Chinese stocks declined 18.2%, pulling down emerging markets, which fell 8.1%, as investors fretted over regulatory risk and contagion from a potential default by struggling Chinese real estate conglomerate Evergrande. U.S. small-cap stocks lagged large-cap equities, while international and emerging market small caps outperformed large-cap equities. The diverging performance between value and growth stocks narrowed in the third quarter, with U.S. large-cap growth equities modestly outperforming large-cap value, while U.S. small-cap growth equities underperformed small value. Within sectors financials, utilities, communication services, healthcare and technology led the market, while industrials, materials, energy, and consumer sectors underperformed.



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

Fixed-income markets ended third quarter 2021 mostly flat despite an uptick in volatility. Initially, yields on the 10-year Treasury note dipped amid concerns around growth and the COVID-19 Delta variant, but they moved back up in the vicinity of 1.5% as the Federal Reserve stayed the course on future tapering. In corporate credit, shorter-duration securities and high-yield debt outperformed Treasuries, while longer-dated corporate credit lagged.

Global stocks were a mixed bag in the fourth quarter of 2021. Domestic equities led the charge with the S&P 500 Index hitting a new record high in December and ending the quarter up 11%. Outside the United States, international developed markets gained 2.7%, while emerging market equities lost 1.3%, dragged down by Brazil and China. U.S. and developed international small-cap stocks underperformed large caps, while emerging market small-cap equities outperformed large-cap stocks. In the United States, within large-cap equities, growth outperformed value, while in small-cap stocks, value trumped growth; within sectors, energy, financials, materials, and industrials led the market, while real estate, utilities and consumer staples lagged.

In fourth quarter 2021, fixed-income markets experienced continued volatility amid concerns around inflation and the new surge in Coronavirus infections, leading to the overall flattening of the Treasury yield curve. Yields pushed higher in the shorter maturities with the two-year note increasing 46 basis points to 0.74%, while the long-end saw 30-year yields rally 12 basis points to finish the quarter at 1.9%. U.S. investment-grade debt spreads continue to hover around the low-end of their historical ranges, finishing the quarter at 92 basis points, modestly wider by eight basis points. Agency pass-throughs felt the weight of future tapering by the Federal Reserve and widened four basis points. Spreads on high-yield credit—a bright spot within fixed income—tightened six basis points to finish the quarter at 283 basis points over comparable Treasuries.

Stocks struggled in the first quarter of calendar year 2022, as investors grappled with inflation, higher interest rates and heightened geopolitical risks amid Russia's invasion of Ukraine. U.S. large-cap stocks were in the red with the S&P 500 Index losing 4.6%. Outside the United States, international developed market equities and emerging market stocks fared worse, with the MSCI EAFE Index down 5.9% and the MSCI Emerging Markets Index losing 7%. In general, large cap outperformed small cap (except in emerging markets), and value beat growth.

In the first three months of calendar year 2022, fixed-income markets were roiled as yields rose and the yield curve flattened substantially amid the Fed's more aggressive stance around rate tightening. At the short end, two-year Treasuries ended the quarter yielding 2.28%, up 155 basis points, and the yield spread between the 10-year and two-year compressed to just four basis points (and briefly inverted). Even at these higher yields and new issue concessions, investment-grade bond issuers flocked to the market to boost their liquidity; spread widening also contributed to investment-grade corporate credit losing 7.4% on a total-return basis for the quarter.

The rout in equities spilled into the final quarter of Fiscal Year 2022, as heightened geopolitical tensions, high inflation, and dramatic increases in interest rates ratcheted up concerns of a recession. Major indexes declined sharply with the S&P 500 Index down 16.1% while European stocks fared slightly better with the MSCI EAFE Index losing 14.3%; emerging markets led performance with losses of 11%, according to the MSCI Emerging Markets Index. In line with the previous quarter, value stocks bested growth equities and large-cap equities outperformed small-cap stocks. Within sectors, energy was the relative outperformer, while information technology and consumer discretionary lagged.

Volatility reigned in fixed-income markets in the final quarter of Fiscal Year 2022, as headline CPI surged to 9.1%, hitting a 40-year high. In response, the Federal Reserve boosted the Fed Funds rate by 75 basis points in June—its largest move since 1994—while signaling a willingness to take a tough stance on inflation even at the expense of economic growth. Against this backdrop, the 10-year Treasury yield peaked at 3.47% on June 14—its highest reading since 2011—before ending the quarter at 3.02%. In addition, the yield curve flattened, with 10- and two-year spreads just above zero at the end of the second quarter. Investment-grade corporate spreads widened 39 basis points in the three months ended June 30, while agency mortgage spreads widened 22 basis points. As a result, the Bloomberg Aggregate Bond Index declined 4.7% in the second quarter, bringing year-to-date losses to 10.3%, the weakest six-month start to a year since inception.

### 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 disciplined investment process has been effective in achieving a long-term record of consistent asset growth.

As of June 30, 2022, the Fairfax County Police Officers Retirement System stood at \$1.772 billion, down from \$1.807 billion at the end of fiscal year 2021. Calculating performance using a time-weighted rate of return, for the year ending 2022, the system returned +3.90%, gross of fees (+0.89%, net of fees), ranking in the 3rd percentile of all public funds in the BNY Mellon Total Public Fund Universe. For the three, five, and ten-year periods (annualized), the system returned gross of fees, +10.89%, (+8.37%, net of fees), ranking in the 5th percentile, +9.28%, (+7.43%, net of fees), ranking in the 10th percentile, and +8.66% (+7.58, net of fees), ranking in the 26th percentile, respectively.

During the past twelve months, the System continued to focus on further diversifying risk. Blockchain Capital VI, EJV Silvergate II, Frazier Life XI, Hive IV, Lavrock Ventures II, Polychain III, Red Tree Ventures, Sands Global Venture III, Sands Life Pulse II, and Two Sigma Venture IV were added to the Global Equity portfolio; Parataxis was added to the Absolute Return lineup; Parataxis Digital, PIMCO Bravo IV, and VanEck New Finance were added to the Global Fixed Income lineup; OnyxPoint Multi-Strategy was added to the Global Real Assets portfolio.

Sincerely,



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

**Investment Section**

<b>Investment by Category and Investment Manager</b>				
For the Year Ended June 30, 2022				
<b>Asset Class</b>	<b>Manager</b>	<b>Investment Style</b>	<b>Fair Value</b>	<b>% of Total Portfolio</b>
<b>Absolute Return</b>				
	Alpha Simplx Trend	Global Macro	\$43,214,494	2.4%
	Aspect Sysmatic Gm	Global Macro	27,233,685	1.5%
	Bridgewater Pa II	Global Macro	34,529,418	2.0%
	Citadel Global	Multi-Strategy	64,969,329	3.7%
	Crabel Multi-Prod	Global Macro	33,210,007	1.9%
	Kirkoswald Gm	Global Macro	60,052,144	3.4%
	Parataxis	Relative Value	5,798,292	0.3%
	Solus Sola	Event Driven	23,433,939	1.3%
	Verition Multi Strat	Multi-Strategy	49,275,410	2.8%
<b>Global Equity</b>				
	Acadian Intl Small	Int'l Developed Small Cap	35,246,891	2.0%
	Blockchain V	Private Markets Equity	16,184,006	0.9%
	Blockchain VI	Private Markets Equity	4,978,988	0.3%
	Dyal Capital II	Private Markets Equity	38,907,475	2.2%
	Dyal Capital IV	Private Markets Equity	43,684,123	2.5%
	EJF Silvergate II	Private Markets Equity	823,134	0.1%
	FEIM Intl Value*	Int'l Developed Markets Value	53,512,651	3.0%
	Frazier Life XI	Private Markets Equity	502,500	0.0%
	HIVE IV	Private Markets Equity	794,463	0.1%
	Lavrock Ventures II	Private Markets Equity	960,371	0.1%
	Morgan Creek Bco I	Private Markets Equity	58,647,880	3.3%
	Morgan Creek Bco II	Private Markets Equity	85,836,879	4.8%
	Morgan Creek Digital	Private Markets Equity	10,144,468	0.6%
	Polychain III	Private Markets Equity	6,623,633	0.4%
	Red Tree Ventures	Private Markets Equity	2,600,000	0.2%
	Sands Em Equity	Int'l Emerging Markets	24,533,747	1.4%
	Sands Global Inov II	Private Markets Equity	6,494,583	0.4%
	Sands Global Ven III	Private Markets Equity	5,845,977	0.3%
	Sands Life Pulse II	Private Markets Equity	4,707,207	0.3%
	Sands Life Sci Pulse	Private Markets Equity	12,586,297	0.7%
	Section Ventures	Private Markets Equity	4,518,029	0.3%
	Starboard Val & Opp	U.S. Small Cap	25,304,822	1.4%
	Two Sigma Ventur III	Private Markets Equity	49,829,489	2.8%
	Two Sigma Ventur IV	Private Markets Equity	1,487,680	0.1%
	WCM Intl Growth*	Int'l Developed Markets Growth	30,142,562	1.7%

See next page for the continuation of this report.



## Investment by Category and Investment Manager

For the Year Ended June 30, 2022

Investment by Category and Investment Manager				
For the Year Ended June 30, 2022				
Asset Class	Manager	Investment Style	Fair Value	% of Total Portfolio
<b>Global Fixed Income</b>				
	Crestline Opp III	Private Markets Credit	22,338,760	1.3%
	Crestline Opp IV	Private Markets Credit	20,937,349	1.2%
	Czech SJC III	Private Markets Credit	19,124,595	1.1%
	Doubleline Mtg Opp	Private Markets Credit	18,027,724	1.0%
	Doubleline Strat Mbs*	Mortgage Backed Securities	43,919,504	2.5%
	EJF Debt Opp	Private Markets Credit	13,901,872	0.8%
	Hoisington US Treas*	Core Fixed	23,140,364	1.3%
	Loomis High Yield*	High Yield Bonds	21,476,459	1.2%
	Marathon Dist Cr	Private Markets Credit	22,675,240	1.3%
	Marathon Eco III	Private Markets Credit	25,887,486	1.5%
	Marathon Eco VI	Private Markets Credit	21,604,185	1.2%
	Onyxpoint*	High Yield Bonds	23,192,949	1.3%
	Parametric US Tips*	Inflation-Linked	37,914,408	2.1%
	Parataxis Digital	High Yield	5,000,000	0.3%
	PGIM Em Debt Plus	Emerging Market	37,472,776	2.1%
	Pimco Bravo III	Private Markets Credit	38,843,388	2.2%
	Pimco Bravo II	Private Markets Credit	4,841,085	0.3%
	Pimco Bravo IV	Private Markets Credit	18,023,465	1.0%
	Pimco Disco III	Private Markets Credit	5,327,042	0.3%
	Pimco Tac Opps	Private Markets Credit	29,175,055	1.7%
	Section IV	Private Markets Credit	10,612,726	0.6%
	Solus Long Term Opp	Private Markets Credit	24,575,573	1.4%
	Vaneck Digital	High Yield	5,000,000	0.3%
<b>Global Multi-Asset</b>				
	AQR Global Risk Premium	Core Risk Parity	46,343,628	2.6%
	Blackrock Market Advantage	Core Risk Parity	75,952,952	4.3%
	Man AHL Target Risk	Core Risk Parity	82,451,673	4.7%
<b>Global Real Assets</b>				
	C&S Global Real Est*	Global Real Estate Securities	47,395,854	2.7%
	Coatue Transport I	Private/Public Infrastructure	15,740,182	0.9%
	DWS Real Assets	Multi-Real Asset	65,585,070	3.7%
	Landmark Re Sec VIII	Private Markets Real Estate	19,974,729	1.1%
	Onyxpoint Multi Stra	Commodity -Energy	2,019,793	0.1%
	Pinnacle Cattle	Private Markets Real Estate	4,427,744	0.2%
	Pinnacle Physicals	Private Markets Real Estate	24,058,688	1.4%
<b>Short Term</b>				
	Blackrock Stif A/L*	Plan Level Cash Account	1,751,883	0.1%
	Cash Management	Plan Level Cash Account	15,579,715	0.9%
	Parametric Pios*	Overlay	<u>11,359,190</u>	<u>0.6%</u>
<b>Total Investments</b>			<b><u>\$1,772,267,677</u></b>	<b><u>100.0%</u></b>
*Separately Managed Accounts		**See pages 8-9 for complete listing of investment professionals		

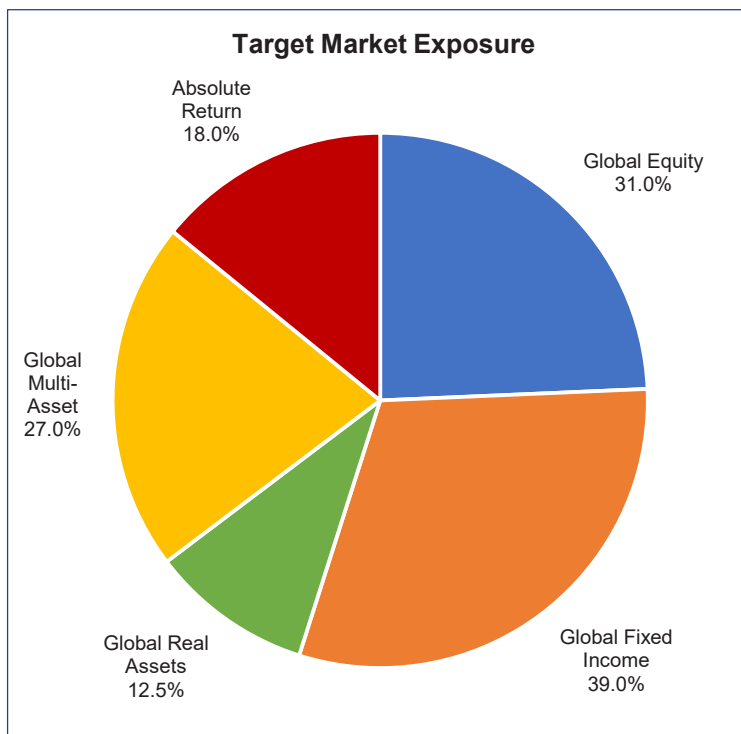
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## Police Officers Retirement System – Allocation of Capital Exposures

### Target Asset Allocation

The asset structure shown below represents the Trustees' assessment of their optimal asset allocation as of June 30, 2022. 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.

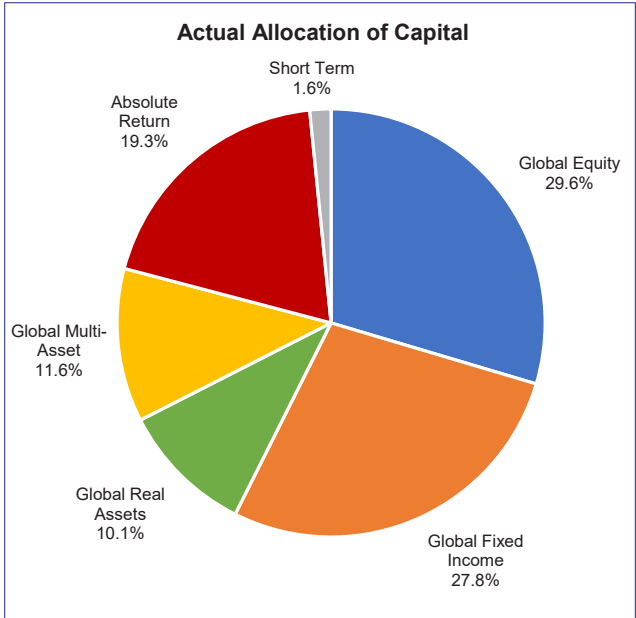
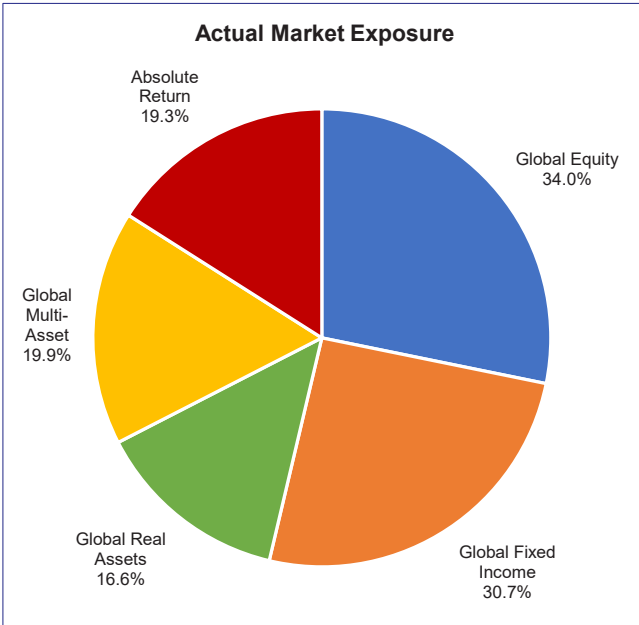
The pie chart below details the target asset mix, consistent with the achievement of the long-term objectives of the System, as of June 30, 2022.



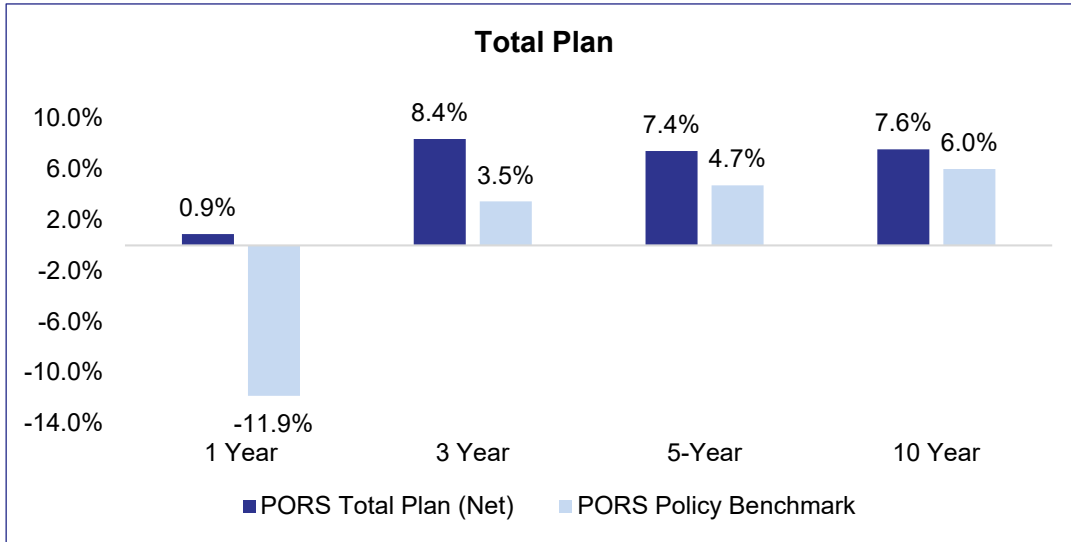
**Actual Asset Allocation as of June 30, 2022**

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.

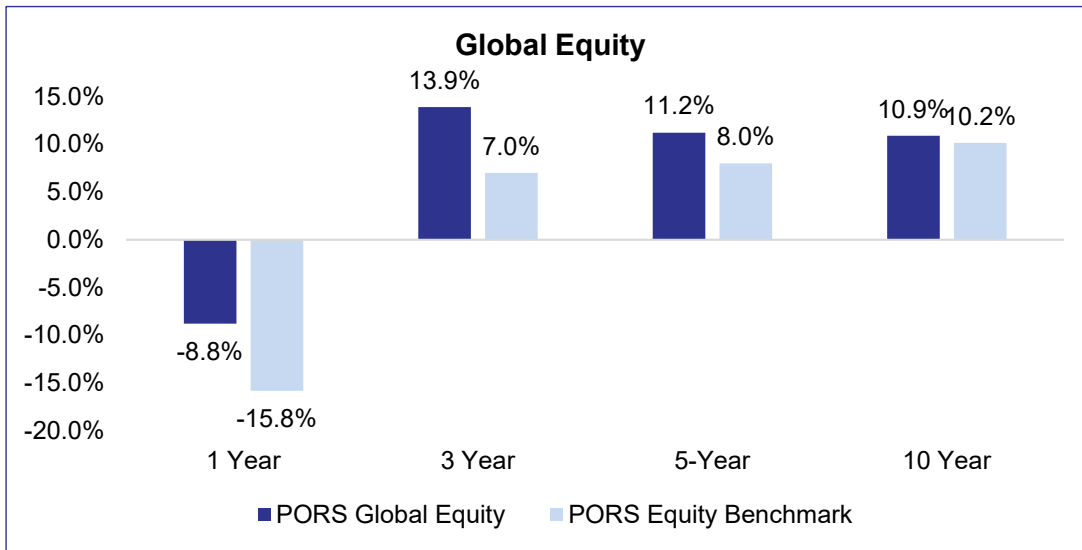
The pie chart below details the target asset mix, consistent with the achievement of the long-term objectives of the System, as of June 30, 2022.



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

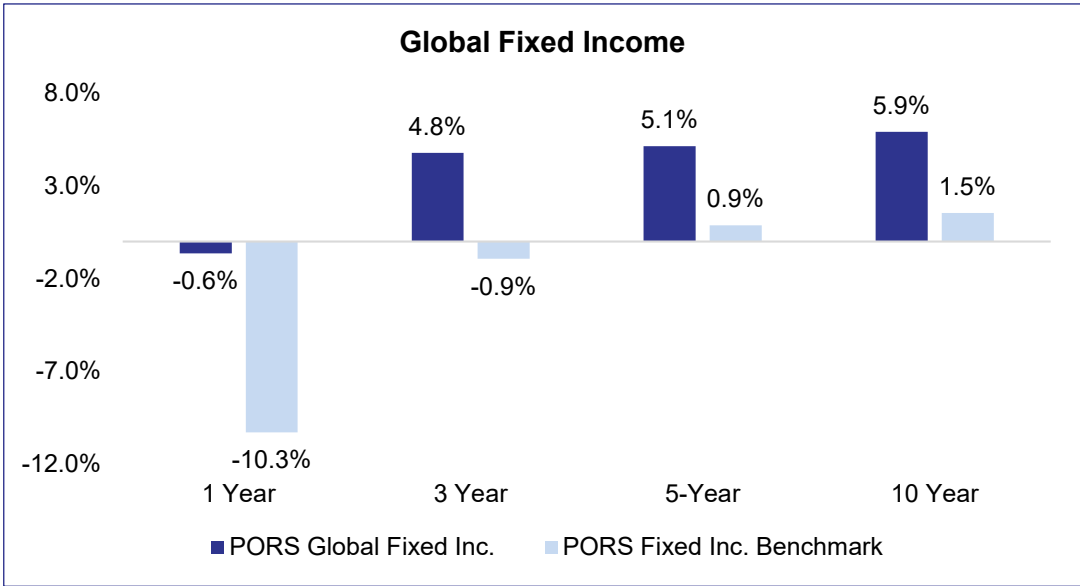


\*Current Benchmark: 27% Global Multi-Asset blended benchmark, 11% S&P 500, 8% Russell 2000, 9.5% MSCI EAFE, 2.5% MSCI Emerging Markets, 35% U.S. Aggregate Bond Index, 4% Merrill Lynch High Yield Master, 10% Real Assets blended benchmark, 2.5% S&P GSCI Gold Excess Return, -7.0% Libor. (Benchmark has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

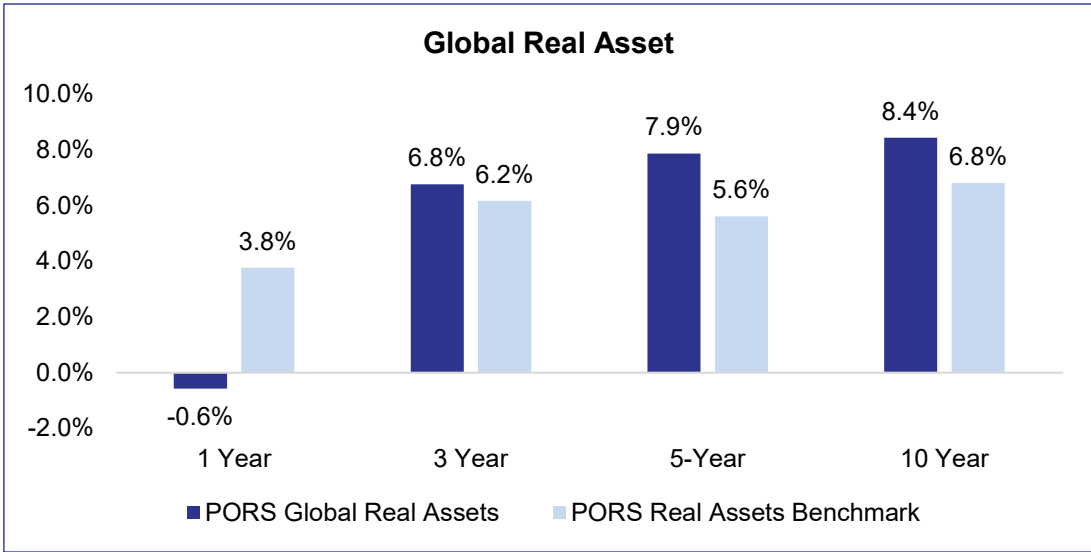


\*Current Benchmark: 41% S&P 500, 33% MSCI EAFE, 17% Russell 2000, 9% EM (Benchmark has been revised through time)

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

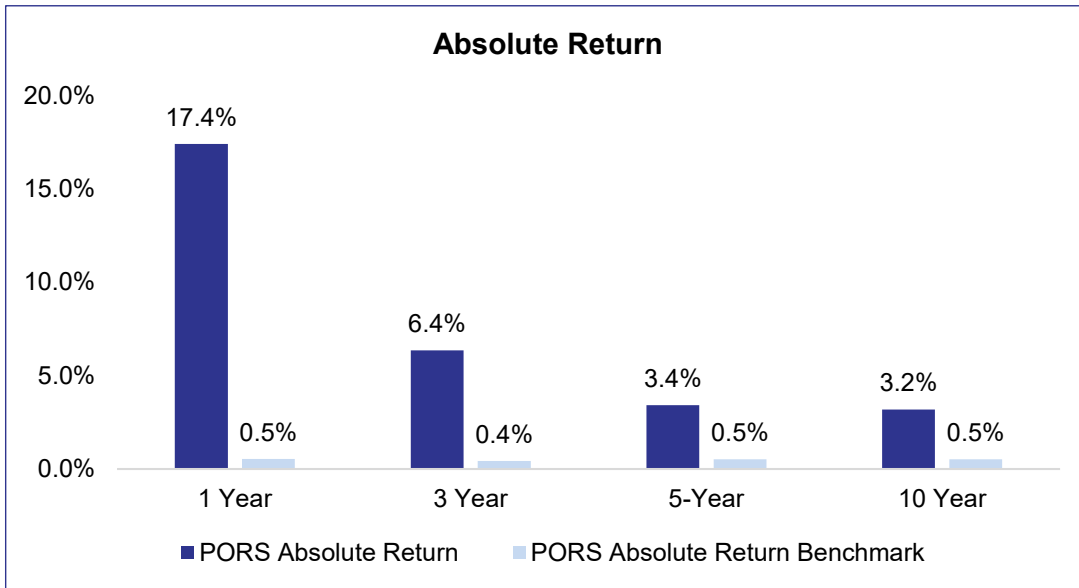


\*Current Benchmark: 83% U.S. Agg Bond Index, 17% Merrill Lynch High Yield Master (Benchmark has been revised through time)

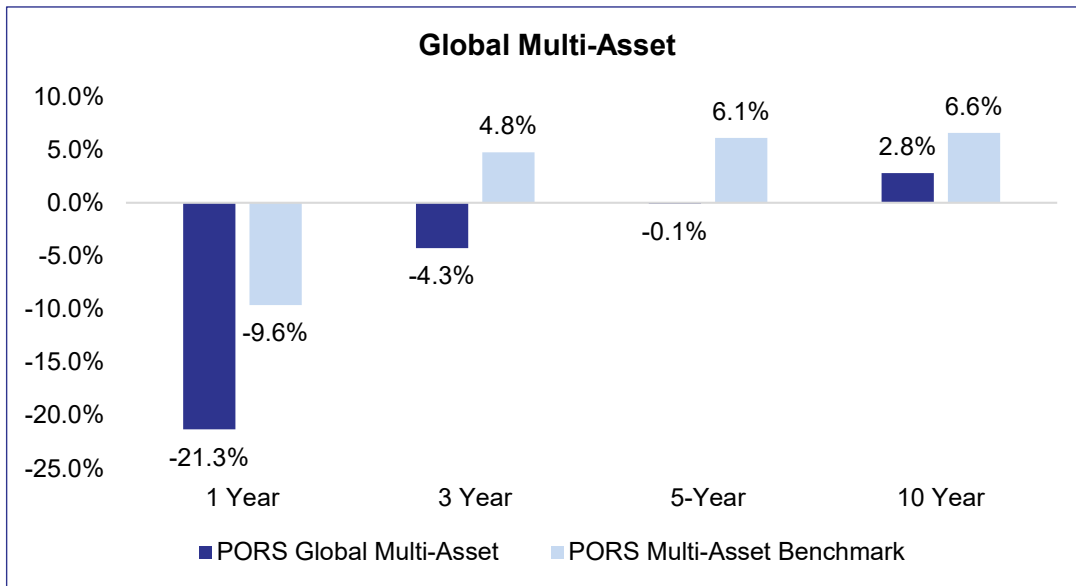


\*Current Benchmark: 33.3% FTSE/NAREIT Developed, 33.3% DJ Brookfield Global Infrastructure, 33.3% Commodity (Benchmark has been revised through time)

**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 &amp; Fixed Income Holdings

Ten Largest Equity Holdings*				
No. Shares	Description	Cost	Fair Value	% of Total Portfolio
21,926	Prologis Inc	\$1,756,215	\$2,579,594	0.15%
6,967	Public Storage	1,421,060	2,178,372	0.12%
16,235	Digital Realty Trust Inc	2,436,062	2,107,790	0.12%
56,292	Invitation Homes Inc	2,008,691	2,002,869	0.11%
22,535	Welltower Inc	1,858,665	1,855,757	0.10%
26,431	Realty Income Corp	1,423,963	1,804,180	0.10%
36,527	Imperial Oil Ltd	1,105,328	1,718,251	0.10%
34,869	Unilever Plc	1,829,864	1,579,178	0.09%
16,496	Simon Property Group Inc	1,585,677	1,565,800	0.09%
35,435	British American Tobacco Plc	<u>1,543,403</u>	<u>1,514,583</u>	<u>0.09%</u>
<b>Total</b>		<b>\$16,968,928</b>	<b>\$18,906,374</b>	<b>1.07%</b>

\*Full disclosure of holdings is available upon request.

Ten Largest Fixed Income Holdings*				
No. Shares	Description	Cost	Fair Value	% of Total Portfolio
8,693,268	US Treas-CPI Inflat 2.375% 01/15/2027 DD 01/15/07	\$10,138,073	\$9,461,318	0.53%
8,300,000	US Treasury Bond 2.500% 05/15/2046 DD 05/15/16	10,525,762	7,086,789	0.40%
5,821,396	US Treas-CPI Inflat 0.125% 07/15/2024 DD 07/15/14	5,999,544	5,883,453	0.33%
6,720,000	US Treasury Bond 2.500% 02/15/2046 DD 02/15/16	8,506,575	5,738,006	0.32%
5,674,327	US Treas-CPI Inflat 0.125% 01/15/2030 DD 01/15/20	6,231,814	5,431,920	0.31%
7,080,000	US Treasury Bond 1.250% 05/15/2050 DD 05/15/20	4,902,965	4,545,289	0.26%
3,970,000	US Treasury Bond 2.250% 08/15/2046 DD 08/15/16	4,710,268	3,225,307	0.18%
2,759,601	US Treas-CPI Inflat 1.375% 02/15/2044 DD 02/15/14	3,542,060	2,858,119	0.16%
3,900,000	US Treasury Bond 1.625% 11/15/2050 DD 11/15/20	3,726,361	2,767,635	0.16%
3,750,000	US Treasury Bond 1.375% 08/15/2050 DD 08/15/20	<u>2,683,691</u>	<u>2,491,275</u>	<u>0.14%</u>
<b>Total</b>		<b>\$60,967,113</b>	<b>\$49,489,111</b>	<b>2.79%</b>

\*Full disclosure of holdings is available upon request.

## Investment Section

Schedule of Brokerage Commissions				
For the Year Ended June 30, 2022				
Broker Name	Base Volume	Total Shares	Base Commission	Commission Percentage
BARCLAYS CAPITAL INC, NEW YORK	\$488,034	124,687	\$3,487	0.71%
RBC DOMINION SECS INC, TORONTO (DOMA)	300,270	142,582	526	0.18%
MORGAN STANLEY & CO, LONDON (MSLNGB2X)	10,525	1,200	18	0.17%
PERSHING LLC, JERSEY CITY	1,168,802	64,922	1,940	0.17%
JEFFERIES HONG KONG LIMITED, HONG KONG	233,857	3,500	375	0.16%
BARCLAYS CAPITAL, NEW YORK	126,451	10,066	190	0.15%
DAIWA SECS (HK) LTD, HONG KONG	373,492	2,180	561	0.15%
CREDIT SUISSE, LONDON (CSFPGB2L)	32,792	621	49	0.15%
BERENBERG GOSSLER & CIE, HAMBURG	2,353,941	16,338	3,535	0.15%
JEFFERIES AUSTRALIA PTY LIMITED, SYDNEY	357,259	89,283	536	0.15%
UBS WARBURG ASIA LTD, HONG KONG	708,446	91,528	1,062	0.15%
GOLDMAN SACHS AUSTRALIA PTY LTD, MELBOURN	133,630	14,379	200	0.15%
CITIGROUP GBL MKTS AUSTRALIA PTY, SYDNEY	25,684	1,904	38	0.15%
KEPLER EQUITIES, PARIS	186,358	1,139	278	0.15%
CITIGROUP GBL MKTS INC, NEW YORK	768,663	190,873	1,066	0.14%
DAIWA SECS AMER INC, NEW YORK	2,802,850	159,126	3,859	0.14%
J.P. MORGAN SECURITIES, HONG KONG	444,916	61,174	597	0.13%
J P MORGAN SEC, SYDNEY	274,339	53,316	368	0.13%
BARCLAYS CAPITAL, LONDON (BARCGB33)	906,234	8,119	1,195	0.13%
MORGAN STANLEY DEAN WITTER, SYDNEY	464,397	171,733	601	0.13%
MACQUARIE BANK LIMITED, SYDNEY	502,501	112,081	637	0.13%
CREDIT LYONNAIS SECS (ASIA), HONG KONG	426,594	39,094	524	0.12%
SKANDINAVISKA ENSKILDA BANKEN, COPENHAGE	105,693	638	127	0.12%
XP INVESTIMENTOS CCTVM SA, RIO DE JANEIRO	7,717	2,500	9	0.12%
DAIWA SEC, SEOUL	14,014	85	17	0.12%
CREDIT LYONNAIS SEC, SEOUL	238,078	1,171	285	0.12%
UBS EQUITIES, LONDON	1,675,344	59,826	2,005	0.12%
MERRILL LYNCH INTL LONDON EQUITIES	6,609,608	683,604	7,760	0.12%
CITIGROUP GLOBAL MARKETS INC., NEW YORK	140,598	72,552	165	0.12%
MACQUARIES SECURITIES AUSTRALIA, SYDNEY	1,440,811	202,783	1,632	0.11%
J P MORGAN SECS LTD, LONDON	1,639,284	80,706	1,815	0.11%
MERRILL LYNCH, NEW YORK	23,307	949	26	0.11%
DAIWA SEC SMBC SINGAPORE LTD, SINGAPORE	113,814	3,332	126	0.11%
ROYAL BANK OF CANADA EUROPE LTD, LONDON	877,674	38,393	949	0.11%
JPMORGAN SECURITIES INC, NEW YORK	1,006,111	482,502	1,079	0.11%
LIQUIDNET ASIA LTD, HONG KONG	252,123	61,300	252	0.10%
UBS AG LONDON BRANCH, LONDON	203,090	3,527	202	0.10%
WELLS FARGO SECURITIES, LLC, NEW YORK	64,206	3,154	63	0.10%
BNP PARIBAS SECURITIES SVCS, HONG KONG	317,481	44,579	311	0.10%
RBC CAPITAL MARKETS LLC, NEW YORK	217,130	6,363	208	0.10%
JEFFERIES & CO LTD, LONDON	642,290	75,366	599	0.09%
CREDIT SUISSE, NEW YORK (CSUS)	1,973,472	73,520	1,807	0.09%
CIBC WORLD MKTS INC, TORONTO	11,731	676	11	0.09%
MORGAN STANLEY AND CO., LLC, NEW YORK	2,746,242	178,547	2,437	0.09%
CIBC WORLD MKTS INC, TORONTO (WGDB)	87,433	4,910	77	0.09%
CREDIT LYONNAIS SECS, SINGAPORE	995,275	207,575	874	0.09%
PERSHING SECURITIES LTD, LONDON	4,399,492	338,464	3,823	0.09%
TORONTO DOMINION SEC, TORONTO	93,406	5,008	79	0.08%
LIQUIDNET CANADA INC, TORONTO	27,010	1,439	23	0.08%
D CARNEGIE AB, STOCKHOLM	1,369,690	20,755	1,145	0.08%
Other Brokers	<u>220,189,487</u>	<u>4,670,929</u>	<u>107,412</u>	0.05%
<b>TOTAL</b>	<b>\$260,571,646</b>	<b>8,684,998</b>	<b>\$156,960</b>	<b>0.06%</b>

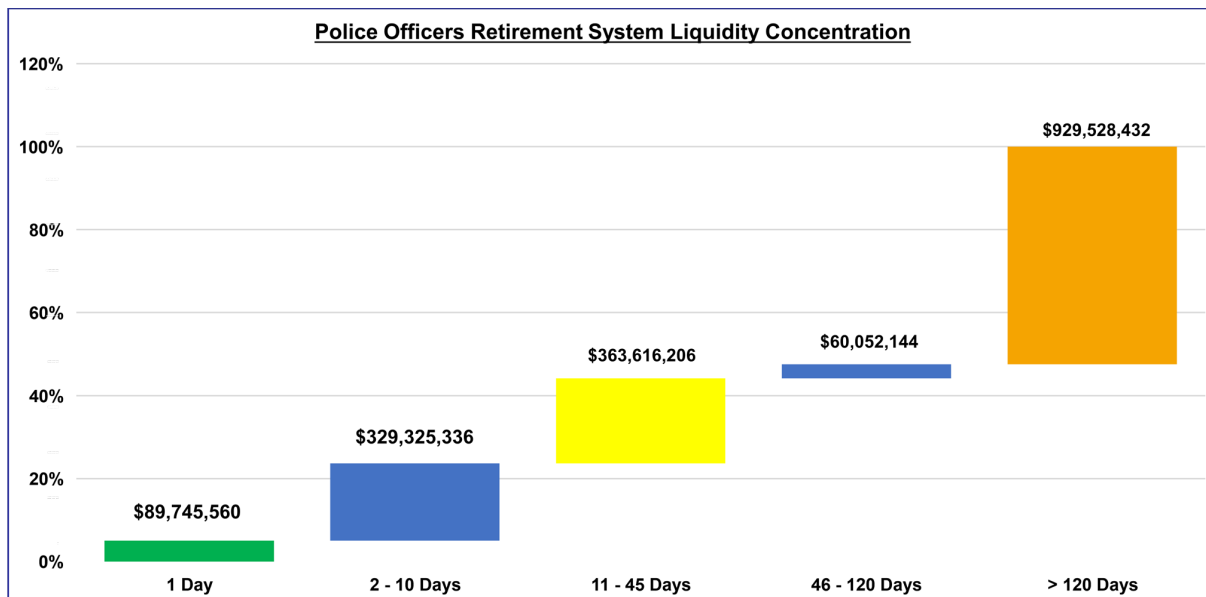


<b>Schedule of Management Fees by Asset Class</b>		
For the Year Ended June 30, 2022		
<b>Asset Class</b>	<b>Fair Value</b>	<b>Management Fees</b>
Absolute Return	\$341,716,718	\$11,029,781
Global Equity	524,897,854	\$6,754,568
Global Fixed Income	493,012,004	\$4,473,426
Global Multi-Asset	204,748,253	\$2,390,677
Global Real Assets	179,202,060	\$1,825,274
Short Term and Others	<u>28,690,788</u>	<u>\$328,366</u>
<b>Total</b>	<b><u>\$1,772,267,677</u></b>	<b><u>\$26,802,092</u></b>

<b>Investment Summary</b>				
(Based on Capital Allocation)				
	<b>As of June 30, 2022</b>		<b>As of June 30, 2021</b>	
	<b>Fair Value</b>	<b>% Fair Value</b>	<b>Fair Value</b>	<b>% Fair Value</b>
Absolute Return	\$341,716,718	19.3%	\$274,583,760	15.2%
Global Equity	524,897,854	29.6%	432,565,328	23.9%
Global Fixed Income	493,012,004	27.8%	591,990,826	32.8%
Global Multi-Asset	204,748,253	11.6%	271,135,013	15.0%
Global Real Assets	179,202,060	10.1%	176,979,711	9.8%
Short Term and Others	<u>28,690,788</u>	<u>1.6%</u>	<u>59,872,565</u>	<u>3.3%</u>
<b>Total</b>	<b><u>\$1,772,267,677</u></b>	<b><u>100.0%</u></b>	<b><u>\$1,807,127,203</u></b>	<b><u>100.00%</u></b>

**Liquidity Snap Shot on June 30, 2022**

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.





# ACTUARIAL





# ACTUARIAL





October 25, 2022

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 as of June 30, 2022. 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 ACFR. 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, 2022 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, 2020. 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 2022 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, 2022.

**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) 2022 was developed in the 2020 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 2022 valuation.

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

#### **Funding Method**

The Entry Age Normal Cost 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  
Healthy Retiree Mortality**

<b>Annual Deaths Per 10,000 Members Mortality Projected to 2022</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
50	26	17
55	36	32
60	65	55
65	104	83
70	162	129
75	283	217
80	518	377
85	959	654
90	1,600	1,141
95	2,342	1,837
100	3,211	2,850

\* Post-retirement mortality shown

**Beneficiary/Survivor Mortality**

<b>Annual Deaths Per 10,000 Members Mortality Projected to 2022</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
20	4	2
25	4	2
30	6	3
35	9	4
40	11	5
45	12	6
50	47	36
55	61	41
60	84	49
65	114	65
70	170	103
75	279	180
80	490	330
85	872	619
90	1,494	1,170
95	2,283	1,911
100	3,211	2,850

The PubS-2010 Healthy Annuitant Head-Count Weighted Mortality Table for males and females, respectively, projected using the MP-2020 model, with an ultimate rate of 0.85% for ages 20-80 grading down to an ultimate rate of 0% for ages 114-120 and convergence to the ultimate rate in the year 2027. The valuation uses fully generational projection of mortality improvements. Sample rates shown are those projected through the valuation date.

The PubG-2010 Healthy Annuitant Head-Count Weighted Mortality Table for males and females, respectively, projected using the MP-2020 model, with an ultimate rate of 0.85% for ages 20-80 grading down to an ultimate rate of 0% for ages 114-120 and convergence to the ultimate rate in the year 2027. The valuation uses fully generational projection of mortality improvements. Sample rates shown are those projected through 2022.

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



**Active Separation From Service Due to Death**

Annual Deaths Per 10,000 Members Mortality Projected to 2022		
Age	Male	Female
20	5	2
25	5	3
30	7	4
35	8	5
40	9	6
45	10	7

The PubS-2010 Employee Head-Count Weighted Mortality Table for males and females, respectively, projected using the MP-2020 model, with an ultimate rate of 0.85% for ages 20-80 grading down to an ultimate rate of 0% for ages 114-120 and convergence to the ultimate rate in the year 2027. The valuation uses fully generational projection of mortality improvements. Sample rates shown are those projected through the valuation date.

**Disabled Mortality**

Annual Deaths Per 10,000 Members Mortality Projected to 2022		
Age	Male	Female
45	33	22
50	43	30
55	62	56
60	98	92
65	143	119
70	207	168
75	327	290
80	549	495

The PubS-2010 Disabled Head-Count Weighted Annuitant Mortality Table for males and females, respectively, projected using the MP-2020 model, with an ultimate rate of 0.85% for ages 20-80 grading down to an ultimate rate of 0% for ages 114-120 and convergence to the ultimate rate in the year 2027. 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	96
1	68
2	42
3	32
4	29
5	23
6	18
7	18
8	15
9	19
10	10
11	8
12	8
13	10
14	6
15	7
16	3
17	7
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**

<b>Annual Disabilities Per 1,000 Members*</b>	
<b>Age</b>	<b>Male and Female</b>
20	3
25	4
30	5
35	7
40	10
45	17
50	28
55	40
60	40

\* 80% of disabilities are assumed to be service-connected.  
 Of these, 100% are assumed to receive Workers' Compensation benefits.

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

<b>Years of Service</b>	<b>Merit/Seniority Increase*</b>
0	6.50%
5	3.00
10	1.00
15	2.00
20	2.50
25	1.00
30+	1.00

**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.

**Retirement/DROP**

<b>Years of Service</b>	<b>Retirement/DROP*</b>
5-23	5%
24	10
25	40
26	35
27	30
28	35
29	40
30	35
31	40
32	25
33	50
34	30
35+	100

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

**Sick Leave Credit**

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

**Economic Assumptions**

Investment Return:	6.75% compounded per annum.
Rate of General Wage Increase:	2.25% compounded per annum.
Rate of Increase in Cost-of-Living:	2.10% compounded per annum.*
Total Payroll Increase (For amortization):	2.25% compounded per annum.
Administrative Expenses:	0.50% of payroll.

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

**Rationale for Assumptions**

The actuarial assumptions were adopted by the Board of Trustees upon the recommendation of the actuary, based on an experience study performed in 2021. The results of this study were presented in a report dated October 2021 and are incorporated into the actuarial report by reference.

**Changes since Last Valuation**

None.

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

Type of Activity	Investment Income	Combined Liability Experience	Gain (or Loss) During Year from Financial Experience	Non-Recurring Items	Composite Gain (or Loss) During Year
2013	\$523,678	\$17,282,544	\$17,806,222	\$0	\$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)
2021	61,545,112	(19,812,468)	41,732,644	(17,213,508)	24,519,136
2022	(5,067,610)	(109,415,555)	(114,483,165)	-	(114,483,165)

<sup>1</sup> Schedule comes from the Actuarial Valuation as of June 30, 2022.

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

Year Ended June 30,	Added to Rolls		Removed From Rolls		On Rolls @ Yr. End		% Increase Allowance	Average Allowance
	No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		
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
2021	83	5,527,070	24	1,284,283	1,261	83,056,985	5.38%	65,866
2022	77	7,835,510	21	1,074,961	1,317	89,817,534	8.14%	68,199

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

Schedule of Funded Liabilities by Type<sup>1</sup>

Aggregate Accrued Liabilities For							
Valuation Date June 30,	(1)	(2)	(3)	Reported Assets	Portion of Accrued Liabilities by Reported Assets		
	Active Member Contributions	Retirees, Vested Terms, Beneficiaries & DROP	Active Members (County Financed Portion)		(1)	(2)	(3)
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%
2021	116,591,173	1,299,954,940	588,192,131	1,723,799,319	100%	100%	52%
2022	114,958,847	1,400,332,004	670,317,775	1,796,873,341	100%	100%	42%

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

Schedule of Active Member Valuation Data

Valuation Date June 30,	Number of Active Members <sup>1</sup>	Covered Payroll	Average Annual Salary	Percentage Increase in Average Pay
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%
2021	1,335	123,434,071	92,460	1.50%
2022	1,299	135,888,219	104,610	13.14%

<sup>1</sup> Excludes DROP participants.

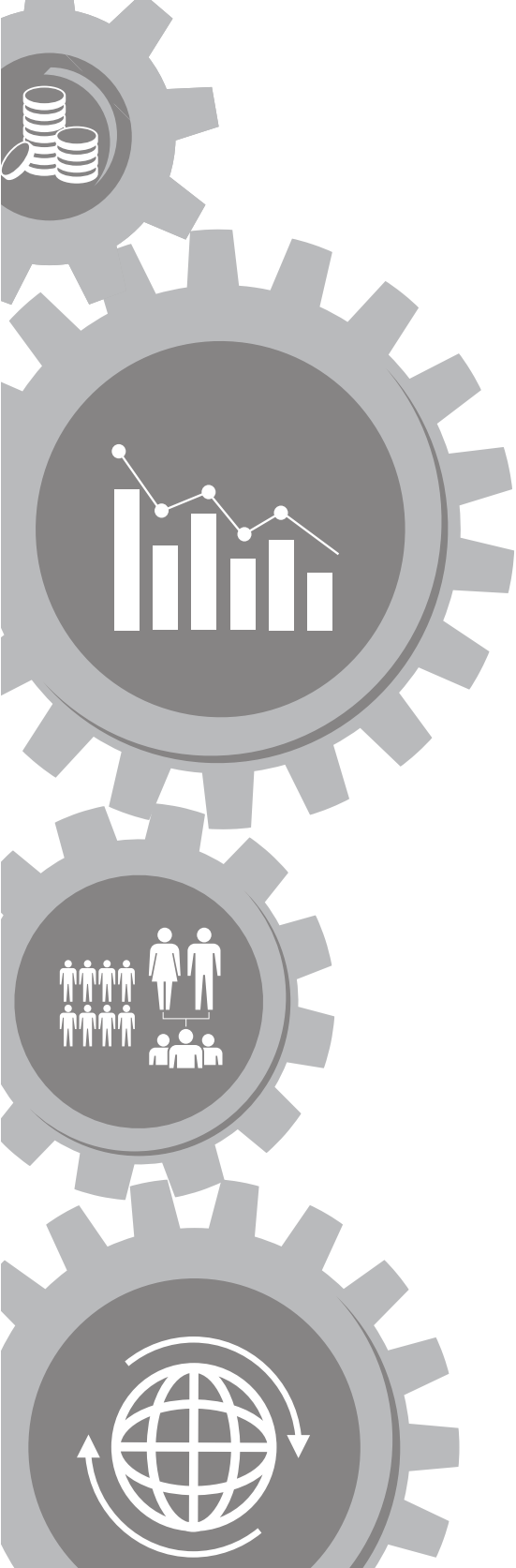
Schedule of Funding Progress

Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liabilities (b)	Unfunded Actuarial Accrued Liabilities (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
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%
2021	1,723,799,319	2,004,738,244	280,938,925	86%	123,434,071	228%
2022	1,796,873,341	2,185,608,626	388,735,285	82%	135,888,219	286%



**STATISTICAL**



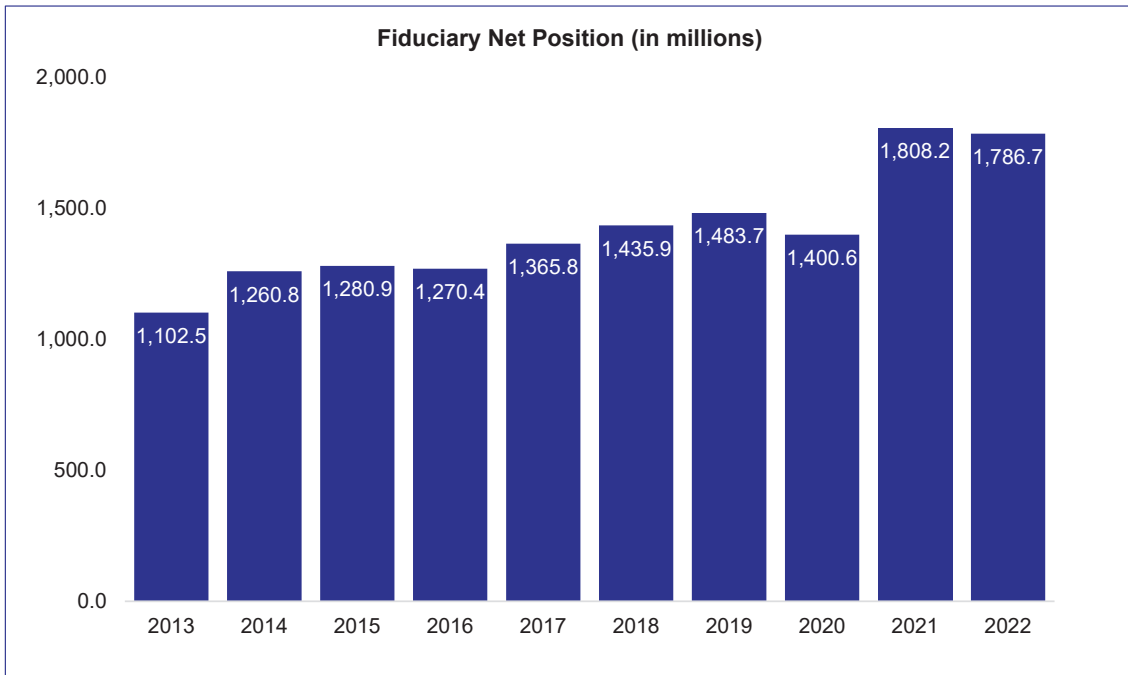


**STATISTICAL**





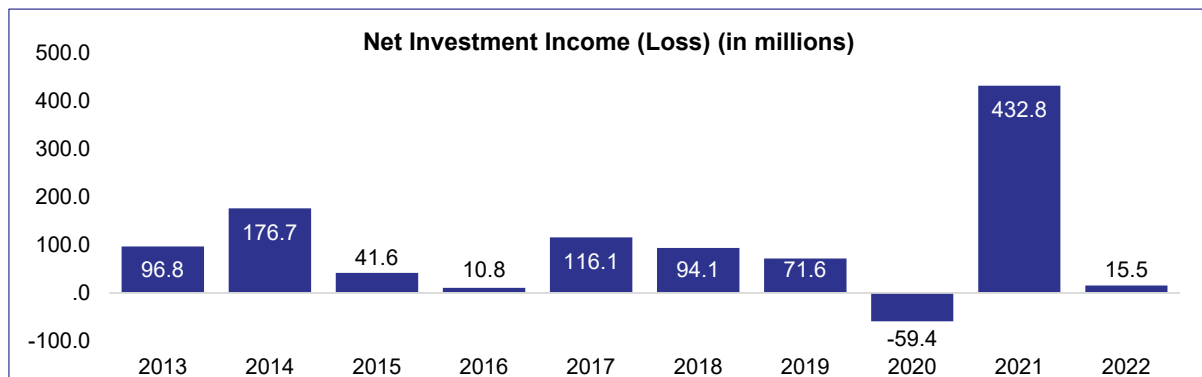
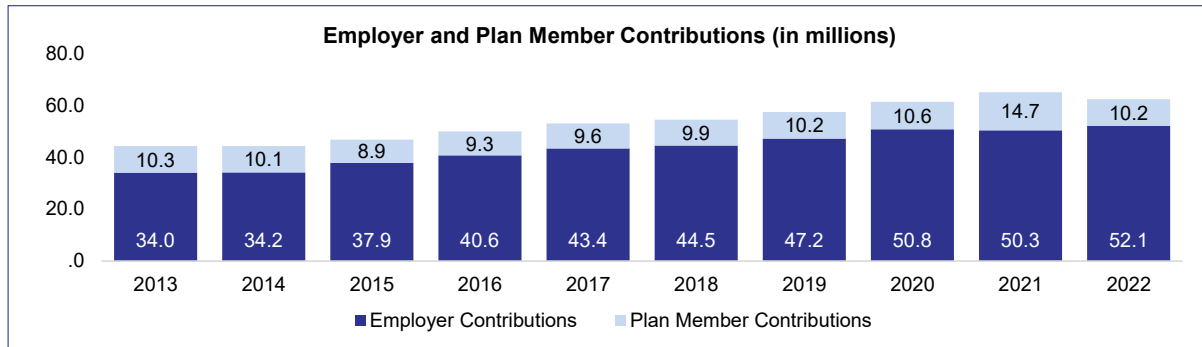
The Statistical Section presents historical information regarding the retirement plan. This information includes a ten-year analysis of the sources of change in plan fiduciary net position, benefit payments, the number of retired members and average monthly benefits. Sources of additions include employer 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
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
2021	1,808,189,543
2022	1,786,738,122

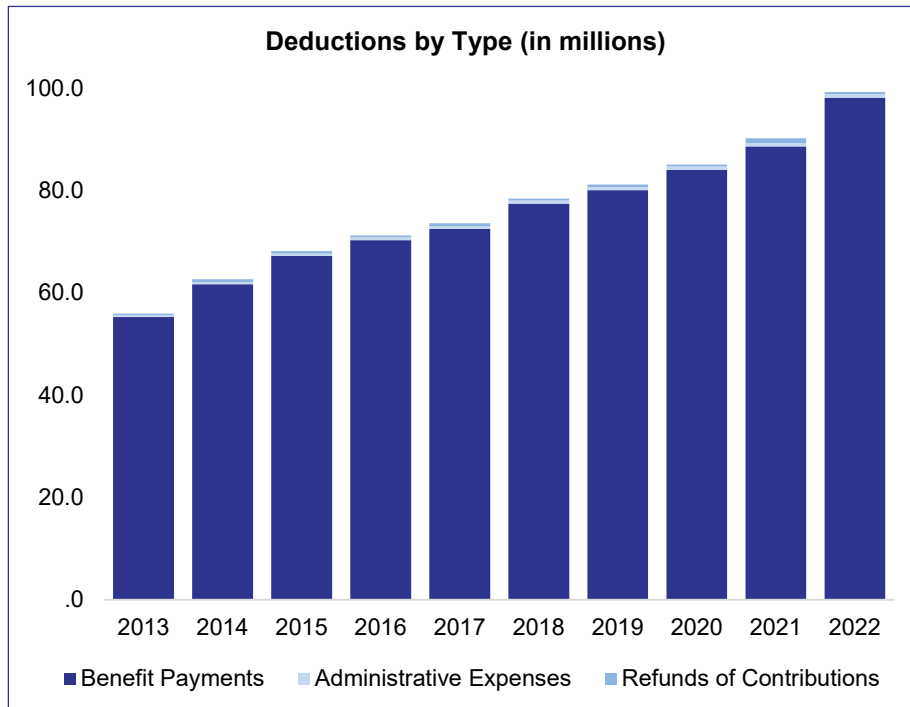
<b>Changes in Fiduciary Net Position*</b>					
<b>Fiscal Year</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Additions by Source</b>					
Plan Member Contributions	\$10,258,858	\$10,091,331	\$8,889,931	\$9,324,066	\$9,631,618
Employer Contributions	34,011,347	34,178,960	37,867,181	40,646,884	43,381,151
Net Investment Income (Loss)	<u>96,783,078</u>	<u>176,683,610</u>	<u>41,601,153</u>	<u>10,764,028</u>	<u>116,099,350</u>
<b>Total Additions</b>	141,053,283	220,953,901	88,358,265	60,734,978	169,112,119
<b>Deductions by Type</b>					
Benefit Payments	\$55,266,464	\$61,715,421	\$67,276,713	\$70,352,623	\$72,534,389
Refunds of Contributions	300,847	572,284	480,447	397,188	641,609
Administrative Expenses	<u>415,119</u>	<u>431,064</u>	<u>443,230</u>	<u>510,544</u>	<u>481,574</u>
<b>Total Deductions</b>	<u>55,982,430</u>	<u>62,718,769</u>	<u>68,200,390</u>	<u>71,260,355</u>	<u>73,657,572</u>
<b>Change in Fiduciary Net Position</b>	<b><u>\$85,070,853</u></b>	<b><u>\$158,235,132</u></b>	<b><u>\$20,157,875</u></b>	<b><u>(\$10,525,377)</u></b>	<b><u>\$95,454,547</u></b>

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



Changes in Fiduciary Net Position					
Fiscal Year	2018	2019	2020	2021	2022
<b>Additions by Source</b>					
Plan Member Contributions	\$9,895,922	\$10,176,811	\$10,570,158	\$14,687,984	\$10,241,464
Employer Contributions	44,504,675	47,182,840	50,781,403	50,348,130	52,066,100
Net Investment Income (Loss)	<u>94,134,740</u>	<u>71,578,489</u>	<u>(59,355,354)</u>	<u>432,834,482</u>	<u>15,535,475</u>
<b>Total Additions</b>	148,535,337	128,938,140	1,996,207	497,870,596	77,843,039
<b>Deductions by Type</b>					
Benefit Payments	\$77,478,191	\$80,116,433	\$84,087,797	\$88,691,929	\$98,193,106
Refunds of Contributions	360,176	459,698	361,855	888,427	437,846
Administrative Expenses	<u>618,207</u>	<u>610,711</u>	<u>655,945</u>	<u>665,628</u>	<u>663,508</u>
<b>Total Deductions</b>	<u>78,456,574</u>	<u>81,186,842</u>	<u>85,105,597</u>	<u>90,245,984</u>	<u>99,294,460</u>
<b>Change in Fiduciary Net Position</b>	<b><u>\$70,078,763</u></b>	<b><u>\$47,751,298</u></b>	<b><u>(\$83,109,390)</u></b>	<b><u>\$407,624,612</u></b>	<b><u>(\$21,451,421)</u></b>

Continued from previous page.



**Schedule of Benefit Payments by Type**

<b>Fiscal Year</b>	<b>Service Annuity</b>	<b>Service-Connected Disability</b>	<b>Ordinary Disability</b>	<b>Survivor Benefit</b>	<b>Total</b>
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
2021	81,576,691	1,210,017	213,747	5,691,474	88,691,929
2022	90,783,074	1,204,218	219,304	5,986,510	98,193,106

**Schedule of Retired Members by Benefit Type**

<b>Fiscal Year</b>	<b>Service Annuity</b>	<b>Service-Connected Disability</b>	<b>Ordinary Disability</b>	<b>Survivor Benefit</b>	<b>Total</b>
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
2021	1,054	25	8	174	1,261
2022	1,104	25	8	180	1,317

**Schedule of Average Monthly Benefit Amounts**

<b>Fiscal Year</b>	<b>Service Annuity</b>	<b>Service-Connected Disability</b>	<b>Ordinary Disability</b>	<b>Survivor Benefit</b>	<b>Average</b>
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	5,724	4,633	1,664	2,289	5,227
2021	6,026	4,426	2,227	2,536	5,496
2022	6,244	4,290	2,284	2,589	5,683

<b>Schedule of Average Monthly Benefit Payments by Years of Service</b>							
	Years of Credited Service*						
	2-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30+
<b><u>Period 7/1/2011 to 6/30/2012</u></b>							
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	\$ -
<b><u>Period 7/1/2012 to 6/30/2013</u></b>							
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
<b><u>Period 7/1/2013 to 6/30/2014</u></b>							
Average Monthly Benefit **	-	-	-	3,147	4,041	5,795	6,965
Average of Final Monthly Salaries	-	-	-	6,728	7,192	8,016	,837
Number of Retirees	-	-	-	2	9	37	7
<b><u>Period 7/1/2014 to 6/30/2015</u></b>							
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
<b><u>Period 7/1/2015 to 12/31/2015</u></b>							
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
<b><u>Period 1/1/2016 to 12/31/2016</u></b>							
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
<b><u>Period 1/1/2017 to 12/31/2017</u></b>							
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
<b><u>Period 1/1/2018 to 12/31/2018</u></b>							
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
<b><u>Period 1/1/2019 to 12/31/2019</u></b>							
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
<b><u>Period 1/1/2020 to 12/31/2020</u></b>							
Average Monthly Benefit	-	942	-	3,328	4,280	6,561	8,226
Average of Final Monthly Salaries	-	3,871	-	6,972	7,976	8,886	9,069
Number of Retirees	-	1	-	3	13	37	7
<b><u>Period 1/1/2021 to 12/31/2021</u></b>							
Average Monthly Benefit	-	0	2,147	5,100	4,379	6,660	12,812
Average of Final Monthly Salaries	-	0	6,870	8,336	7,899	9,088	13,792
Number of Retirees	-	-	2	3	10	44	5

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

\*\*Does not include supplements.

**Active Participants Count by Age/Service**

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	32	46	-	-	-	-	-	-	78
25 to 29	20	140	65	1	-	-	-	-	226
30 to 34	6	49	118	34	4	-	-	-	211
35 to 39	2	20	45	49	85	5	-	-	206
40 to 44	1	4	15	19	103	69	2	-	213
45 to 49	1	1	8	13	42	126	19	2	212
50 to 54	3	1	3	5	21	59	26	4	122
55 to 59	-	1	1	1	7	4	4	4	22
60 to 64	1	-	-	-	5	-	-	1	7
65 & up	-	-	1	-	-	-	1	-	2
<b>Total</b>	<b>66</b>	<b>262</b>	<b>256</b>	<b>122</b>	<b>267</b>	<b>263</b>	<b>52</b>	<b>11</b>	<b>1,299</b>

**Active Participants Total Salary by Age/ Service**

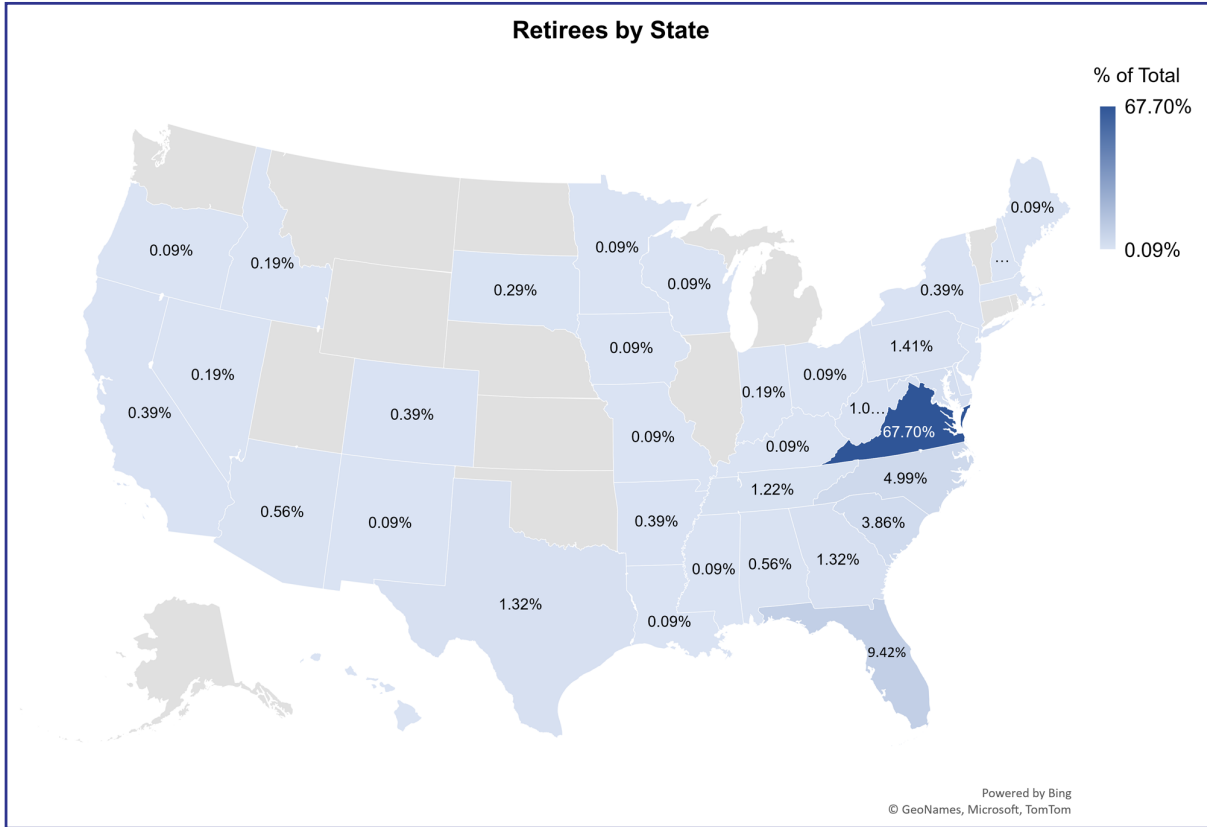
Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$2,077,864	\$2,966,394	\$-	\$-	\$-	\$-	\$-	\$-	\$5,044,258
25 to 29	1,424,070	9,718,952	5,473,981	94,661	-	-	-	-	\$16,711,664
30 to 34	420,467	3,619,696	10,442,084	2,999,471	367,525	-	-	-	\$17,849,243
35 to 39	149,530	1,413,184	4,084,950	4,693,022	8,538,588	554,092	-	-	\$19,433,366
40 to 44	60,099	306,196	1,332,597	1,755,336	10,386,904	7,523,239	276,718	-	\$21,641,089
45 to 49	77,777	59,158	698,118	1,154,086	4,206,644	14,437,349	2,215,616	312,914	\$23,161,662
50 to 54	471,316	68,564	279,703	513,097	2,133,627	6,509,844	2,993,710	585,162	\$13,555,023
55 to 59	-	92,147	95,846	89,638	684,046	419,585	493,704	449,163	\$2,324,129
60 to 64	57,237	-	-	-	506,652	-	-	108,976	\$672,865
65 & up	-	-	95,845	-	-	-	106,517	-	\$202,362
<b>Total</b>	<b>\$4,738,360</b>	<b>\$18,244,291</b>	<b>\$22,503,124</b>	<b>\$11,299,311</b>	<b>\$26,823,986</b>	<b>\$29,444,109</b>	<b>\$6,086,265</b>	<b>\$1,456,215</b>	<b>\$120,595,661</b>

Retirees by Location

Retirees By State	
State	% of Total
Virginia	67.70%
Florida	9.42%
North Carolina	4.99%
South Carolina	3.86%
Maryland	2.35%
Pennsylvania	1.41%
Georgia	1.32%
Texas	1.32%
Tennessee	1.22%
West Virginia	1.04%
Alabama	0.56%
Arizona	0.56%
Arkansas	0.39%
California	0.39%
Colorado	0.39%
Delaware	0.39%
New York	0.39%
South Dakota	0.29%
Idaho	0.19%
Indiana	0.19%
Nevada	0.19%
District of Columbia	0.09%
Hawaii	0.09%
Iowa	0.09%
Kentucky	0.09%
Louisiana	0.09%
Maine	0.09%
Massachusetts	0.09%
Minnesota	0.09%
Mississippi	0.09%
Missouri	0.09%
New Hampshire	0.09%
New Jersey	0.09%
New Mexico	0.09%
Ohio	0.09%
Oregon	0.09%
Wisconsin	0.09%

Retirees in Virginia	
County	% of Total
Other Counties	93.88%
Fairfax County	<u>6.12%</u>
<b>Total</b>	<b>100.00%</b>

Retirees by Fairfax County/City	
City	% of Total
Centreville	1.13%
Herndon	0.76%
Springfield	0.76%
Fairfax	0.56%
Clifton	0.38%
Lorton	0.38%
Alexandria	0.28%
Chantilly	0.28%
Fairfax Station	0.28%
Reston	0.28%
Vienna	0.28%
Burke	0.19%
Falls Church	0.19%
Oakton	0.19%
Great Falls	0.09%
Mc Lean	0.09%





Check out Fairfax County Retirement Systems Video Library at:  
[www.fairfaxcounty.gov/retirement/retirement-videos](http://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 of our online forms are now fillable
- We have added “How To” videos to our video library
- You can meet with your Retirement Analyst virtually or in person. Just email your Analyst for more details.
- We offer 10 different Retirement Preparation classes – most are virtual



To request this information in an alternate format, call Fairfax County Retirement Systems, 703-279-8200 (TTY 711).

**HOW TO VIDEOS**

- How to Use the Online Estimator
- Benefit Estimator

**HOW TO FILL OUT FORMS**

- Employee Normal/Early Service Retirement Application
- Direct Deposit Form
- Payroll Deduction Form



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