

THE EDUCATIONAL EMPLOYEES' SUPPLEMENTARY  
RETIREMENT SYSTEM OF FAIRFAX COUNTY

A COMPONENT UNIT OF FAIRFAX COUNTY PUBLIC SCHOOLS

FAIRFAX, VIRGINIA



# ANNUAL COMPREHENSIVE FINANCIAL REPORT

# 2022

FOR THE FISCAL YEAR  
ENDED JUNE 30, 2022



Enter Retirement Feeling Confident

## MISSION STATEMENT AND PRINCIPLES

### MISSION

The mission of the Educational Employees' Supplementary Retirement System of Fairfax County (ERFC) is to enhance the financial security of our members through prudent financial stewardship of a defined benefit plan while providing outstanding retirement services and education.

### VISION

To be the leader among peers providing professional and personalized service to our members and beneficiaries to support their efforts to achieve financial independence.

### VALUES

#### ACCOUNTABILITY

We always operate with transparency and a commitment to think strategically while fulfilling fiduciary obligations.

#### CUSTOMER SERVICE

We always respond promptly with quality as we strive to exceed the expectations of our members and their beneficiaries.

#### OPEN COMMUNICATION

We always provide timely and pertinent information that improves processes, removes barriers and establishes accountabilities.

#### INTEGRITY

We conduct operations by adhering to the highest standards of ethical conduct, striving for accuracy, efficiency and effectiveness.

#### CONTINUOUS EDUCATION

Through ongoing education efforts, we enable ERFC employees to continuously improve the service and value they provide to our members; Board of Trustees to more effectively guide and inform ERFC strategy; and our members to better understand and make the most of their ERFC benefits.

# ANNUAL COMPREHENSIVE FINANCIAL REPORT

This report was prepared by:

The Educational Employees' Supplementary Retirement System of Fairfax County  
A Component Unit of Fairfax County Public Schools, Fairfax, Virginia

8001 Forbes Place, Suite 300  
Springfield, VA 22151  
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<https://www.fcps.edu/ERFC-Financials>

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Eliazer Martinez

## Deputy Executive Directors

Srikumar Bala  
Kathleen Wilson

## ACFR Project Team

Wendy Zhi, CPA, Finance Coordinator  
Allison Kelly, CPA  
Kevin McCarty  
Denise Kropp

## Designed by

ERFC Communications

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# INTRODUCTION

UNAUDITED

- 
- Letter of Transmittal
  - Letter from the Chairperson
  - Board of Trustees
  - Administrative Organization
  - GFOA Certificate of Achievement
  - Public Pension Standards Award
  - Professional Services

## LETTER OF TRANSMITTAL



8001 Forbes Place, Suite 300  
Springfield, VA 22151

November 18, 2022

The Board of Trustees  
Educational Employees' Supplementary Retirement System of Fairfax County (ERFC)  
Springfield, VA

### **Dear Chairperson and Members of the Board of Trustees:**

It is our privilege to submit the Annual Comprehensive Financial Report (ACFR) for the Educational Employees' Supplementary Retirement System of Fairfax County ("ERFC" or "System") for the fiscal year (FY) ended June 30, 2022. ERFC management holds responsibility for the financial information presented in this report. Proper internal accounting controls exist to provide reasonable assurance for both the safekeeping of assets and the fair presentation of the financial statements. The concept of reasonable assurance recognizes that costs of controls should not exceed the anticipated benefits these controls provide. This ACFR reflects the careful stewardship of the System's assets and dedicated service provided by the Board and staff. This report is designed to comply with the reporting requirements of Sections 3-4-6(a)(8) of the Fairfax County Code and the Virginia Code. We believe this report also conforms to the Government Finance Officers Association's (GFOA) requirements.

The following provides a summary of the System's historical background and outlines significant achievements for the Board and management during the fiscal year. A management discussion and analysis (MD&A) narrative is also provided in the Finance Section immediately following the report of the independent auditor.

### **Plan History**

ERFC was established on July 1, 1973, through negotiations conducted between the Fairfax County School Board and the Fairfax Education Association (FEA). The terms under which ERFC operates were later incorporated in a Fairfax County ordinance and the *ERFC Plan Document*. Historically, ERFC benefits have been designed specifically to supplement the benefits of two primary retirement plans: the Virginia Retirement System (VRS) and the federal Social Security System. In 1987, VRS introduced major increases to the state's early retirement benefits, which required ERFC to thoroughly re-examine the complementary structure of its supplemental benefits plan. Effective July 1, 1988, ERFC significantly altered its *Legacy Plan* benefit structure in order to rebalance the benefit amounts payable to future ERFC members, while also maintaining and protecting the rights of current members. Thirteen years later, the School Board approved further refinements to the ERFC supplemental retirement program with the introduction of a second retirement plan, *ERFC 2001*, a streamlined and stand-alone retirement plan structure provided for all eligible FCPS employees hired on or after July 1, 2001. On April 27, 2017, the School Board voted to modify the *ERFC 2001 Plan* effective July 1, 2017. For ERFC members hired on or after July 1, 2017, retirement eligibility was raised, the period for calculating a member's final average

## LETTER OF TRANSMITTAL

salary was increased, and the cost-of-living adjustment was changed to be based on the Consumer Price Index. For all members, the annual interest rate credited on member accounts was reduced. These modifications helped to mitigate the increase in the employer contribution rate due to actuarial assumption changes.

### **Strategic Plan Updates**

The Board adopted the 2022-2024 Strategic Plan that revolves around sustainability, engagement, education, and operational excellence.

On the marketing front, we began implementation of a 3-year plan to help raise awareness and educate our membership. ERFC was able to effectively reach, educate, and improve services to its membership by continuing to simplify communications, create messaging targeted to specific audiences, and create media content that's available to members 24/7. Our online retirement information sessions, paperwork tutorials, and video about Health Benefits in Retirement in collaboration with FCPS Human Resources helped us reach 17 times as many members as we reached with in-person-only offerings. We also carried out ERFC Ambassador recruitment campaigns targeted to specific member groups, increasing engagement and involvement.

We continued implementation of process enhancements that will result in improved efficiencies, cost savings, and member service. ERFC remained focused on improving operational excellence with a Lean Six Sigma mindset—which gives our staff the framework to continue to pursue peer leadership in providing professional and personalized service to our members. Quality and efficiency improvements over the next decade will allow us to continue to focus on servicing and educating all segments of our population. ERFC continues to outperform its peers, receiving a CEM Benchmarking score 7.5 percent higher than its peers on the administration of the Fund—this includes comparisons to peers on criteria like quality of service to membership, costs to administer the Fund, and types of services provided—to name a few. To further help us achieve operational excellence, we've embarked on a multiyear effort to achieve two operational excellence awards—starting with the United States Senate Productivity and Quality Award (SPQA) and working toward the Malcolm Baldrige National Quality Award. Both awards align with ERFC's mission, vision, and values and will help us promote continual improvement strategies in pursuit of top tier member service, efficiency, and quality.

ERFC continued to promote ERFC*Direct*, and 33,025 active and retired members now use the online service, up from 30,772 a year ago. We also implemented two-factor authentication to enhance security for all our members and began work on upgrades to the ERFC*Direct* member portal.

### **Plan Financial Condition**

There's no doubt that 2022 was a challenging year for the market. The ERFC Fund was down 8.7 percent net of fees on investments in FY 2022—placing the Fund at about the middle of the pack among public pension funds within the Investment Metrics Public Plan Universe >\$1B in assets. For the fiscal year, ERFC outperformed its policy index by 2.2 percent, largely driven by out performance in private equity, hedge fund, and small cap equity investments.

## LETTER OF TRANSMITTAL

Effective December 31, 2021, the Board of Trustees voted to change the assumed rate of return to 7.0 percent from 7.25 percent, of which 2.75 percent constitutes an assumed rate of inflation and 4.25 percent reflects an assumed real rate of return on investments. The change was made to reflect investment industry consensus around lower capital market assumptions over the next 10 to 20 years, along with average national public fund assumed rates of return trending closer to 7.0 percent. In addition, in consultation with our actuary AON, ERFC changed the amortization period for assumption changes from 10 years to 20 years in order to continue adopting best actuarial practices.

ERFC's actuary reported that the System's funding ratio increased from 76.6 percent to 78.0 percent for the valuation period ending December 31, 2021. This increase is due to favorable investment performance in 2021 and favorable demographic experience. The recommended employer contribution rate was 6.70 percent of payroll, an increase from 6.44 percent in FY 2021.

The Financial, Actuarial, and Statistical sections of this report provide detailed information regarding the Fund's overall financial condition. In addition, the Required Supplementary Information included in the Financial Section presents historical data to help in assessment of the System's funding status.

### **Investment Activity**

ERFC's return of -8.7 percent net of fees for FY 2022 outperformed the benchmark index return of -10.9 percent. On an intermediate basis, the Fund ranked in the top 26th percentile of public pension funds within the Investment Metrics Public Plan Universe >\$1B in assets over the last 3-year period ending FY 2022. The Fund's longer-term performance remained strong; the 10-year return of 7.3 percent exceeded the policy index return of 6.3 percent and exceeded the Fund's long-term target return of 7.25 percent.

### **Professional Services**

The ERFC Board of Trustees appoints professional services to provide aid in the efficient management of the System. Segal Marco Advisors provides general investment consulting services, Meketa Investment Group provides discretionary private markets consulting services, and AON/Retirement and Investment provides actuarial services. In accordance with county code, the Fairfax County Board of Supervisors appointed Cherry Bekaert LLP, Raleigh, North Carolina, to audit the System's financial statements.

### **Awards**

The System is proud to announce that we have taken the first step toward the SPQA award by submitting our self-assessment and completing the SPQA Discovery phase. Feedback from SPQA Examiners indicated that ERFC is on the pathway to operational excellence. ERFC also received the GFOA of the United States and Canada Certificate of Achievement for Excellence in Financial Reporting for its FY 2021 ACFR. This is the 25th consecutive year ERFC has earned the award. The GFOA certification remains valid for a period of one year and requires, at minimum, that each ACFR satisfy both generally accepted accounting principles and legal requirements. The GFOA also recognized ERFC with an Award for Outstanding Achievement in Popular Financial Reporting for its FY2021 Popular Annual Financial Report (PAFR). This is the third year ERFC has earned the award. The Public Pension

## LETTER OF TRANSMITTAL

Coordinating Council also honored ERFC recently, granting the System the Public Pension Standards' 2022 Award. ERFC earned the award in recognition for meeting or exceeding professional standards for funding and administration, as set forth in the Public Pension Standards.

### Conclusion

This report is produced through the combined efforts of ERFC staff and advisors functioning under your leadership. It is intended to provide complete and reliable information that will advance the management decision process, serve as a means for determining compliance with legal requirements, and allow for an assessment of the stewardship of the System's funds. We extend our sincere appreciation to all those who contributed to the production of this document.

ERFC distributes this annual report to the members of the Fairfax County School Board, the Fairfax County Public Schools' Leadership Team, its Government Finance Offices, and other interested parties. The full report is posted on the ERFC website at [www.fcps.edu/erfc](http://www.fcps.edu/erfc). We hope that all recipients find the report informative and useful.

Respectfully submitted,



*Eli Martinez*

Eliazer Martinez  
Executive Director  
and CIO



*Srikumar Bala*

Srikumar Bala  
Deputy Executive Director  
Finance and IT

## LETTER FROM THE CHAIRPERSON



8001 Forbes Place, Suite 300  
Springfield, VA 22151

November 18, 2022

Dear ERFC Members:

On behalf of the Board of Trustees of the Educational Employees' Supplementary Retirement System of Fairfax County (ERFC), it is a privilege to present the Annual Comprehensive Financial Report (ACFR) for the fiscal year ending June 30, 2022. The ERFC Board and staff continue to commit themselves to ERFC's mission of financial security of our members through prudent financial stewardship of the System's assets, while providing outstanding retirement services and education to the members of ERFC.

ERFC's defined benefit plan provides a valuable supplement to Fairfax County Public Schools (FCPS) employee members. ERFC was designed specifically to reward educational professionals with a pension to supplement the primary benefits they earn and receive separately from the Virginia Retirement System (VRS) and Social Security. As participants and stakeholders in ERFC, you can be assured that the Board of Trustees works collectively on your behalf to provide the supplemental retirement benefits promised to you by FCPS.

During the year, the ERFC Board and staff completed action items included in the 2022-2024 Strategic Plan focused on continued sustainability efforts, membership engagement, education, and operational excellence. In January, two-factor authentication was added to the ERFC*Direct* portal to enhance member security. Throughout the year, several Board members participated in certified retirement fund Trustee trainings. The Board continued its focus around strong governance practices and updated Board Procedures, ERFC Regulations, Private Market Investment Guidelines, the Investment Policy Statement, and made amendments to the ERFC and ERFC 2001 Plan Documents. The Board further strengthened the Fund by adopting the Investment Consultant Oversight Policy and creating a Securities Litigation Policy.

Like many of our peers, ERFC experienced the effects of the economic downturn caused primarily by COVID-19-driven impacts, high inflation rates—second only to the inflation rates last seen in the 1980s—and global conflicts. As a result, the fund was down 8.7% net of fees for the 2022 fiscal year period. Despite the downturn, ERFC's asset allocation protected the Fund from higher market losses; thus, outperforming its benchmark for the year. The Board will continue to analyze investment strategies in conjunction with ERFC staff and its investment advisors to ensure a well-diversified asset mix with a risk-balanced approach. The Board will also continue to focus on managing the plan assets with the disciplined oversight required to meet the System's long-term investment goals.

## LETTER FROM THE CHAIRPERSON

FCPS' employer contribution rate for the 2022 fiscal year increased to 6.70%. The combined employee and employer contributions provide significant revenue for ERFC. However, it is the System's investment earnings that provide the essential factor necessary to fulfill the guarantee of retirement benefits to members. The Board believes ERFC will continue to prosper by prudently diversifying the investment portfolio.

The ERFC Board values your opinions and welcomes your feedback. We encourage you to visit the website at [www.fcps.edu/erfc](http://www.fcps.edu/erfc) or contact the Trustees directly with any questions regarding your pension fund or payable retirement benefits.

Yours sincerely,



*Kimberly Adams*

Kimberly Adams  
FY 2022 Chairperson  
ERFC Board of Trustees

## BOARD OF TRUSTEES

The Board of Trustees is the governing body of the Educational Employees' Supplementary Retirement System of Fairfax County (ERFC). The ERFC Board comprises seven members: three appointed by the School Board, three elected by the System's active membership, and one Trustee who is neither affiliated with, nor employed by Fairfax County, the Fairfax County School Board, nor by any union or similar organization representing teachers or other Fairfax County employees. The initial six Trustees annually select and recommend a seventh ERFC Board member, or "individual Trustee," for approval by the Fairfax County School Board. The ERFC executive committee comprises the chairperson and treasurer. The Board meets monthly throughout the year, excluding August. ERFC Trustees receive no compensation, but are reimbursed for business-related expenses.



**Kimberly Adams**  
Chairperson  
Elected Member



**Kathie Pfeffer-Hahn**  
Vice Chairperson  
Elected Member



**Eric Eichelberger**  
Treasurer  
Elected Member



**Marty K. Smith**  
Trustee  
Appointed Member



**Sean McDonald**  
Trustee  
Appointed Member

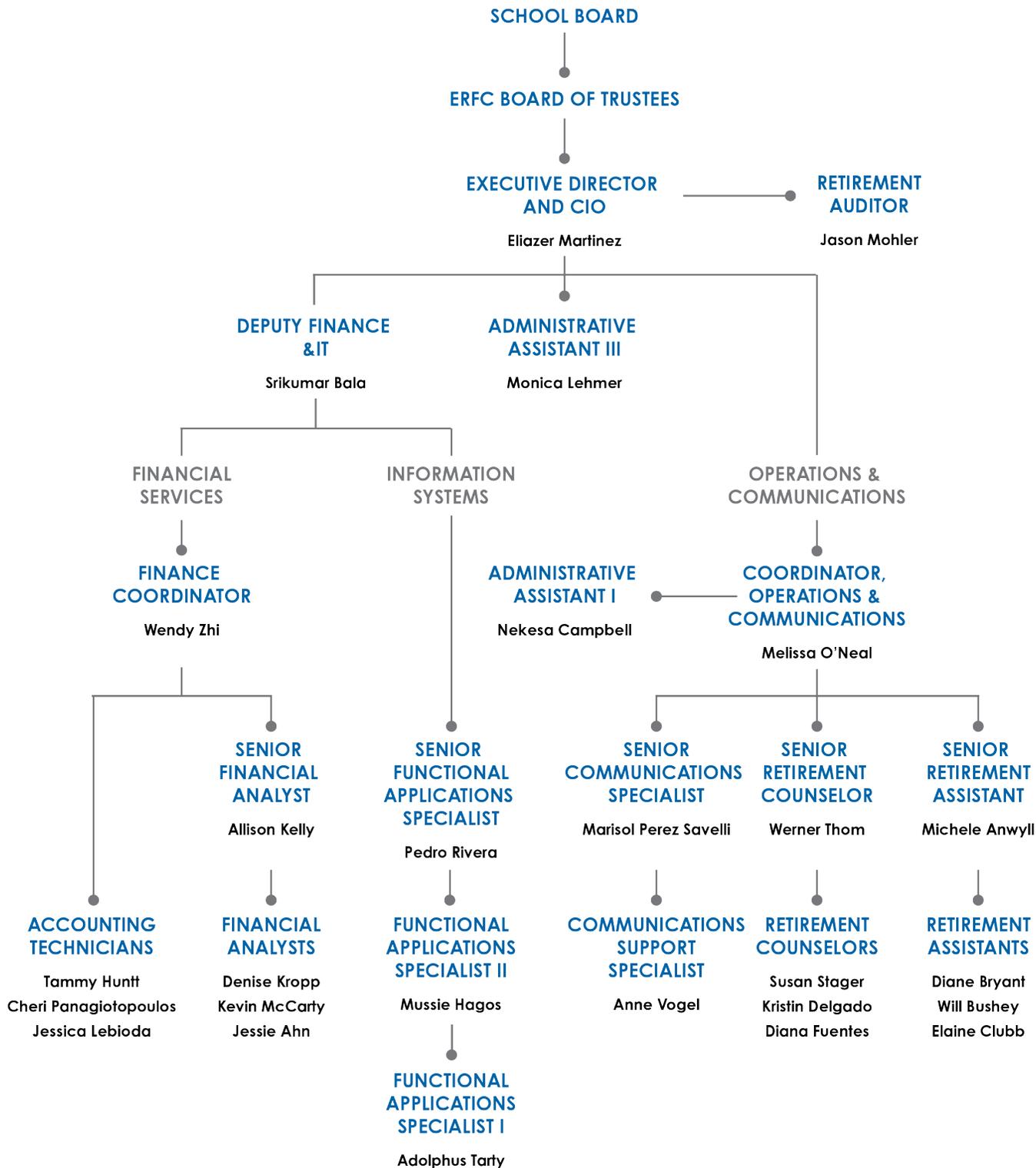


**Leigh Burden**  
Trustee  
Appointed Member



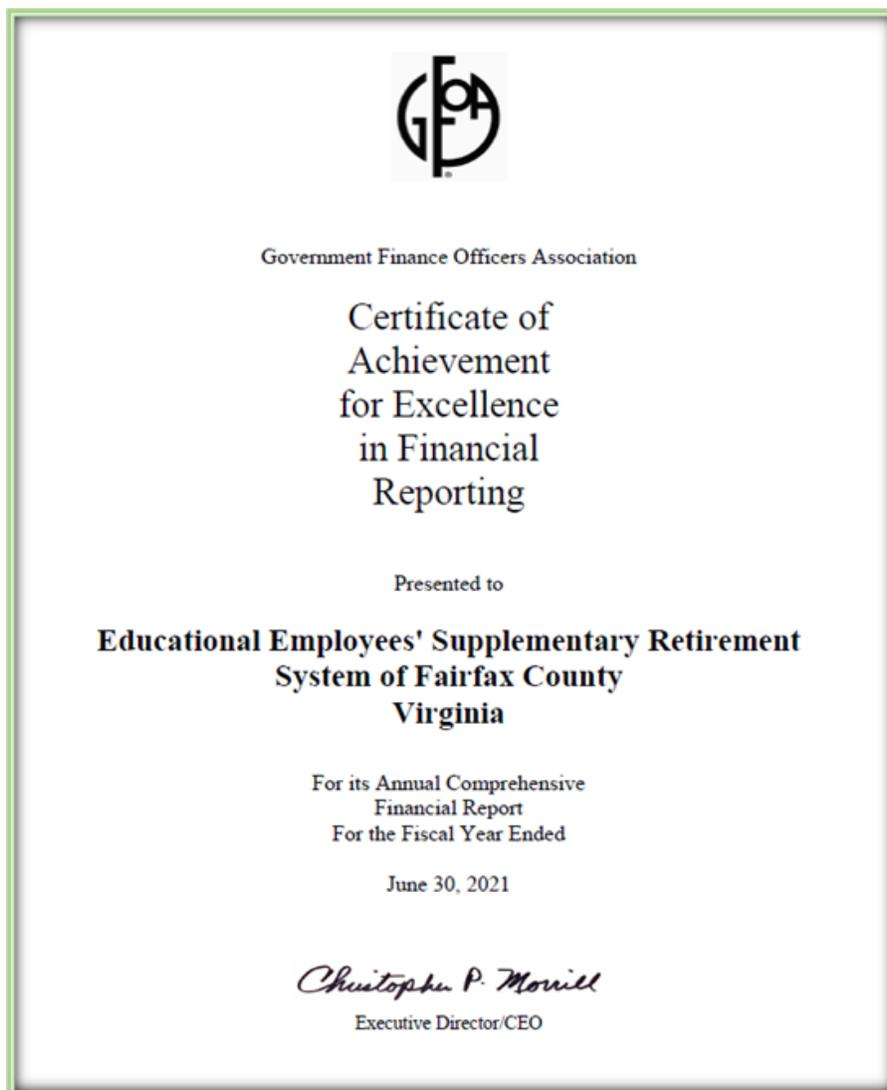
**Adam McConagha**  
Trustee

# ERFC ORGANIZATIONAL CHART



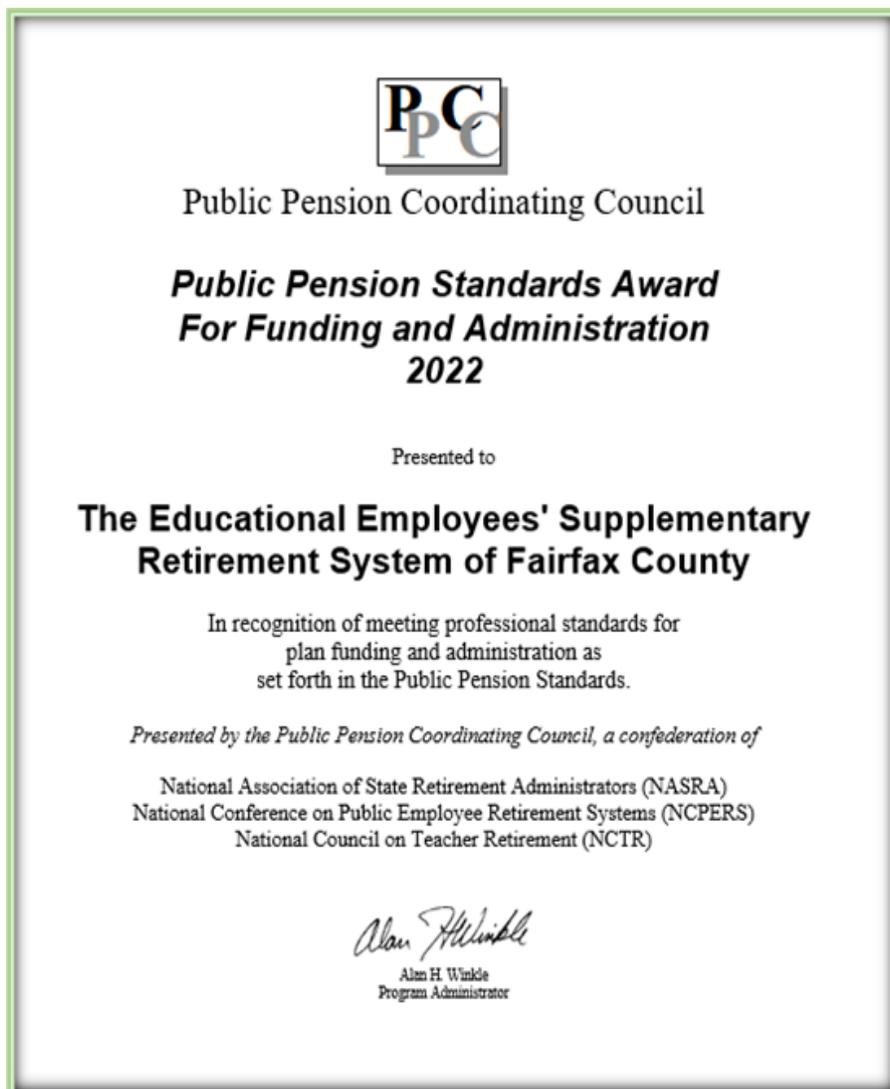
## CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to ERFC for its Annual Comprehensive Financial Report for the fiscal year ended June 30, 2021. This was the 25th consecutive year that ERFC has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized Annual Comprehensive Financial Report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.



## PUBLIC PENSION STANDARDS AWARD

This award has been presented to ERFC in recognition of instituting professional standards for public employee retirement systems as established by the Public Pension Coordinating Council. This award represents an exceptionally high level of administration and reporting in the public pension industry.



## PROFESSIONAL SERVICES

### **ACTUARY**

AON Retirement & Investment

### **AUDITOR**

Cherry Bekaert LLP

### **INVESTMENT CONSULTANT**

Maketa Investment Group  
Segal Marco Advisors

### **MASTER CUSTODIAN**

BNY Mellon

### **LEGAL COUNSEL**

Bredhoff & Kaiser, P.L.L.C.  
Groom Law Group, Chartered  
Reed Smith LLC

### **INVESTMENT MANAGERS**

Details can be found on page 56.

# FINANCIAL

- 
- Report of Independent Auditor
  - Management's Discussion and Analysis
  - Statement of Fiduciary Net Position
  - Statement of Changes in Fiduciary Net Position
  - Notes to the Financial Statements
  - Required Supplementary Information
  - Other Supplementary Information

# REPORT OF INDEPENDENT AUDITOR



## Report of Independent Auditor

To the Board of Trustees  
Educational Employees' Supplementary Retirement System of Fairfax County  
Fairfax, Virginia

### Report on the Audit of the Financial Statements

#### Opinion

We have audited the accompanying financial statements of the Educational Employees' Supplemental Retirement System of Fairfax County (the "System"), a component unit and 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 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 Opinion

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 the 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.

#### Change in Accounting Principle

As discussed in Note 7 to the financial statements, in 2022 the System adopted the new accounting guidance of Governmental Accounting Standards Board ("GASB") Statement No. 87, *Leases*. Our opinion is not modified with respect to this matter.

#### 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 twelve 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 opinion. 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.

## REPORT OF INDEPENDENT AUDITOR

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.

## REPORT OF INDEPENDENT AUDITOR

### **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 18, 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.



Tysons Corner, Virginia  
November 18, 2022

# MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

This discussion and analysis of the Educational Employees' Supplementary Retirement System of Fairfax County (ERFC or the System) financial performance provides an overview of the financial activities for the fiscal year ended June 30, 2022. The information contained in this section should be reviewed in conjunction with the letter of transmittal provided in the Introduction Section of this document.

## FINANCIAL OVERVIEW

For fiscal year 2022, the net-of-fees return on ERFC's assets was (8.7) percent<sup>1</sup>. This resulted in a total net position value of \$3.0 billion, which reflects a decrease of \$274.2 million over the prior fiscal year (as reflected in the accompanying chart). Additional detail on this net decrease in Fiduciary Net Position is outlined in the Summary of Changes in Fiduciary Net Position table contained within Management's Discussion and Analysis. As shown, it is comprised of four major components. They include a net investment loss of \$232.2 million, \$161.1 million in employee and employer contributions, \$198.6 million in retiree benefit payments and member refunds, and \$4.5 million in administrative and depreciation expenses.

### ERFC NET POSITION

(\$ IN MILLIONS)

FISCAL YEAR	NET POSITION	NET CHANGE (\$)	NET CHANGE (%)
2018	2,446.3	142.0	6.2
2019	2,521.4	75.2	3.1
2020	2,593.3	71.9	2.9
2021	3,272.1	678.8	26.2
2022	2,997.9	(274.2)	(8.4)

ERFC's time-weighted (8.7) percent net-of-fees return exceeded the policy benchmark return of (10.9) percent<sup>2</sup>. Three, five, and ten year returns are 7.0 percent, 6.8 percent, and 7.3 percent, respectively<sup>1</sup>. The time-weighted rate of return measures the compound growth rate of the System's investments, net of investment expense. This method eliminates the distortion caused by cash inflows and outflows and is the industry standard for comparing investment returns to a benchmark. The time-weighted rate of return differs from the money-weighted rate of return described in the Notes to the Financial Statements.

The System'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 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. Additional detail regarding investment results can be found in the Investment Section of this report.

<sup>1</sup> Time-weighted rate of return as calculated by Segal Marco.

<sup>2</sup> 16.0% Russell 1000 Index, 9.0% Russell 2000 Index, 5.0% MSCI AC World ex USA (Net), 5.0% MSCI EM (net), 5.0% MSCI AC World Index (Net), 11.0% Blmbg. U.S. Aggregate, 8.0% Blmbg. U.S. Gov't/Credit, 2.0% JPM GBI-EM Global Diversified TR, 4.0% Blmbg. U.S. TIPS, 4.6% MSCI AC World Index (Net), 2.5% Blmbg. U.S. Aggregate, 5.0% HFRI Fund of Funds Composite Index, 6.0% NCREIF - ODCE NET, 1.0% CPI + 4%, 2.0% Bloomberg Barclays U.S. Corp High Yield + 150 bps, 7.0% ThomsonOne All Regions PE, 2.0% 90 Day U.S. Treasury Bill, 5.0% MSCI EAFE Small Cap (Net)

# MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

At December 31, 2021, the actuarial value of assets totaled \$3.1 billion while liabilities totaled \$3.9 billion. This resulted in a funding ratio of 78.0 percent, a measure used by the Board of Trustees to assess funding progress. ERFC's funding level is consistent with the funding levels of similar plans nationwide and as addressed in the Actuary's Certification Letter contained within this report, ERFC remains in sound financial condition. Detailed information regarding actuarial assumptions and methods can be found in the Actuarial Section of this report.

## OVERVIEW OF THE FINANCIAL STATEMENTS

The financial section of ERFC's ACFR comprises five sections: 1) report of independent auditor, 2) management's discussion and analysis, 3) basic financial statements, 4) required supplementary information, and 5) other supplementary information.

ERFC's basic financial statements are comprised of the Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, and Notes to the Financial Statements. The Statement of Fiduciary Net Position provides information on all of the System assets and liabilities, with the difference between the assets and liabilities shown as fiduciary net position. Ultimately, increases or decreases in fiduciary net position may be used to measure the financial condition of ERFC over time.

The Statement of Changes in Fiduciary Net Position describes how ERFC's fiduciary net position changed during the current fiscal year. Additions and deductions represent revenues and expenses, respectively. Additions minus deductions represent the change in fiduciary net position. Expenses, or deductions, which consisted of benefit payments, refunds, and administrative costs were slightly higher this fiscal year.

The Notes to the Financial Statements provide additional data, which is crucial in understanding the information included in the financial statements. The Notes to the Financial Statements immediately follow the basic financial statements.

In addition to the basic financial statements, the annual report also provides required supplementary information regarding the System's changes in net pension liability and schedule of employer contributions, which is intended to assess ERFC's ability to accumulate assets to pay retirement benefits when due.

# MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

## FINANCIAL STATEMENTS

As indicated in the Summary of Fiduciary Net Position, the System net position value decreased \$274.2 million or (8.4) percent in fiscal year 2022. The changes in assets and liabilities underlying this change consist of a decrease of \$317.7 million in the value of investments, a decrease in receivables and other assets of \$31.3 million, a \$28.1 million decrease in securities purchased and a decrease of \$46.7 million in securities lending collateral liabilities.

### SUMMARY OF FIDUCIARY NET POSITION

	JUNE 30, 2022	JUNE 30, 2021	DIFFERENCE
<b>ASSETS</b>			
Total cash and investments	\$ 3,112,776,168	\$ 3,430,488,099	\$ (317,711,931)
Total receivables	10,576,455	42,178,337	(31,601,882)
Other assets	336,023	40,854	295,169
<b>TOTAL ASSETS</b>	<b>3,123,688,646</b>	<b>3,472,707,290</b>	<b>(349,018,644)</b>
<b>LIABILITIES</b>			
Capital leases	—	26,426	(26,426)
Right-to-use lease liability	334,590	—	334,590
Accounts payable	2,159,020	2,339,106	(180,086)
Securities purchased	22,923,839	51,085,575	(28,161,736)
Securities lending collateral	100,361,317	147,105,099	(46,743,782)
<b>TOTAL LIABILITIES</b>	<b>125,778,766</b>	<b>200,556,206</b>	<b>(74,777,440)</b>
Prior period adjustment*	—	(4,001)	4,001
<b>NET POSITION RESTRICTED FOR PENSIONS</b>	<b>\$ 2,997,909,880</b>	<b>\$ 3,272,147,083</b>	<b>\$ (274,237,203)</b>

\*Fiscal year 2021 amount restated to reflect the implementation of GASB statement 87. See Notes for more information.

## MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

As reflected in the Summary of Changes in Fiduciary Net Position, the net change in fiscal year 2022 is due to \$161.1 million in contributions and \$232.2 million in net investment loss, which is offset by \$194.2 million in benefits, \$4.4 million in refunds and \$4.5 million in administrative and depreciation expenses.

Also presented in the Summary of Changes in Fiduciary Net Position, additional information is provided regarding the differences between the fiscal years 2021 and 2022 results. These differing results are mainly due to a decrease in investment income of \$953.0 million and an increase in contributions of \$7.4 million, and an increase in benefits of \$6.6 million.

### SUMMARY OF CHANGES IN FIDUCIARY NET POSITION

	JUNE 30, 2022	JUNE 30, 2021	DIFFERENCE
<b>ADDITIONS</b>			
Contributions			
Employer	\$ 111,119,456	\$ 104,784,310	\$ 6,335,146
Member	50,017,839	48,934,340	1,083,499
Net investment income (loss)	(232,237,621)	720,738,680	(952,976,301)
<b>TOTAL ADDITIONS (REDUCTIONS)</b>	<b>(71,100,326)</b>	<b>874,457,330</b>	<b>(945,557,656)</b>
<b>DEDUCTIONS</b>			
Benefits	194,239,563	187,660,019	6,579,544
Refunds	4,415,933	3,605,963	809,970
Administrative Expenses	4,155,162	4,423,439	(268,277)
Depreciation Expenses	326,219	—	326,219
<b>TOTAL DEDUCTIONS</b>	<b>203,136,877</b>	<b>195,689,421</b>	<b>7,447,456</b>
<b>NET INCREASE (DECREASE) IN NET POSITION RESTRICTED FOR PENSIONS</b>	<b>\$ (274,237,203)</b>	<b>\$ 678,767,909</b>	<b>\$ (953,005,112)</b>

### REQUESTS FOR INFORMATION

This financial information is intended to provide a general overview of the System finances. Questions concerning any of the information presented in this report or requests for additional financial information should be addressed to either the Executive Director or the Finance Coordinator of the Educational Employees' Supplementary Retirement System of Fairfax County, 8001 Forbes Place, Suite 300, Springfield, Virginia 22151. This ACFR can also be found on ERFC's website at: <https://www.fcps.edu/ERFC-Financials>

# STATEMENT OF FIDUCIARY NET POSITION

(As of June 30, 2022)

<b>ASSETS</b>	
<b>CASH AND SHORT-TERM INVESTMENTS</b>	
Cash	\$ 1,336,057
Cash with fiscal agent	2,536,933
Cash collateral for securities on loan	100,361,317
Short-term investments	55,357,186
<b>TOTAL CASH AND SHORT-TERM INVESTMENTS</b>	<b>159,591,493</b>
<b>RECEIVABLES</b>	
Interest and dividends	3,783,713
Securities sold	6,778,208
Miscellaneous accounts receivable	14,534
<b>TOTAL RECEIVABLES</b>	<b>10,576,455</b>
<b>INVESTMENTS</b>	
Stocks	288,897,994
Fixed income	
Asset and mortgage backed	147,774,908
Corporate bonds	274,702,007
International bonds	2,403,350
Convertible securities	5,650,314
Municipal bonds	538,258
U.S. Government obligations	140,353,981
Real estate	222,855,620
Multi asset class solutions (MACS)	192,343,465
Hedge funds - opportunistic	263,871,419
Private equity	309,762,531
Private debt	50,349,798
Infrastructure	29,519,738
Commingled fixed income funds	181,214,664
Commingled equity funds	842,946,628
<b>TOTAL INVESTMENTS</b>	<b>2,953,184,675</b>
<b>OTHER ASSETS</b>	
Furniture and equipment	79,325
Accumulated depreciation	(72,869)
Right-to-use asset	651,709
Accumulated amortization: Right-to-use asset	(322,142)
<b>TOTAL OTHER ASSETS</b>	<b>336,023</b>
<b>TOTAL ASSETS</b>	<b>3,123,688,646</b>
<b>LIABILITIES</b>	
Right-to-use lease liability	334,590
Accounts payable	2,159,020
Securities purchased	22,923,839
Securities lending collateral	100,361,317
<b>TOTAL LIABILITIES</b>	<b>125,778,766</b>
<b>NET POSITION RESTRICTED FOR PENSIONS</b>	<b>\$ 2,997,909,880</b>

See accompanying notes to financial statements.

# STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

(For the Fiscal Year Ended June 30, 2022)

## ADDITIONS

Contributions	
Employer	\$ 111,119,456
Plan members	50,017,839
<b>TOTAL CONTRIBUTIONS</b>	<b>161,137,295</b>
Investment income	
Net appreciation in fair value of investments	(253,636,057)
Interest and dividends	30,133,983
<b>TOTAL INVESTMENT INCOME</b>	<b>(223,502,074)</b>
Less investment expenses	
Investment management fees <sup>1</sup>	7,318,612
Investment consulting fees	1,094,620
Investment custodial fees	347,534
Investment salaries	356,675
<b>TOTAL INVESTMENT EXPENSES</b>	<b>9,117,441</b>
Income from securities lending activities	
Securities lending income	619,108
Securities lending management fees	(237,214)
<b>NET SECURITIES LENDING INCOME</b>	<b>381,894</b>
<b>NET INVESTMENT LOSS</b>	<b>(232,237,621)</b>
<b>TOTAL REDUCTIONS</b>	<b>(71,100,326)</b>

## DEDUCTIONS

Benefits	194,239,563
Refunds	4,415,933
Administrative expense	4,155,162
Depreciation and amortization expense	326,219
<b>TOTAL DEDUCTIONS</b>	<b>203,136,877</b>
<b>NET DECREASE</b>	<b>(274,237,203)</b>

## NET POSITION RESTRICTED FOR PENSIONS

<b>Beginning of year, as previously reported</b>	<b>3,272,151,084</b>
<b>Prior period adjustment</b>	<b>(4,001)</b>
<b>Beginning of year, as restated</b>	<b>3,272,147,083</b>
<b>END OF YEAR</b>	<b>\$ 2,997,909,880</b>

<sup>1</sup> Some investment fees are netted directly against assets under management. See accompanying notes to financial statements.

## NOTES TO THE FINANCIAL STATEMENTS

(For the Fiscal Year Ending June 30, 2022)

The Educational Employees' Supplementary Retirement System of Fairfax County (ERFC or the System) is a legally separate single-employer retirement system and fund established under Virginia code to provide pension benefits to all full-time educational and administrative support employees who are employed by the Fairfax County Public Schools (Schools) and who are not covered by other retirement plans of the Fairfax County. As a fund under the financial control of the School Board, the System's financial statements are included in the Schools' basic financial statements as a pension trust fund.

The System contains two primary benefit structures, *ERFC* and *ERFC 2001*, and both are defined benefit structures. The original structure, *ERFC*, became effective July 1, 1973, and is coordinated with the benefits members expect to receive from the Virginia Retirement System (VRS) and Social Security. It remains in effect; however, it was closed to new members employed after June 30, 2001. A simplified Plan of benefits was developed effective July 1, 2001 with an exclusive level lifetime benefit structure. All newly hired full-time educational and administrative support employees were enrolled in *ERFC 2001*, hereinafter referred to as *ERFC 2001 Tier 1*. It was closed to new members employed after June 30, 2017.

On April 27, 2017, the School Board voted to modify the *ERFC 2001 Tier 1* Plan effective July 1, 2017. For *ERFC* members hired on or after July 1, 2017, members of *ERFC 2001 Tier 2*, retirement eligibility was raised, the period for calculating a member's final average salary was increased and the cost-of-living adjustment was changed to be based on the Consumer Price Index. For all members, the annual interest rate credited on member accounts was reduced.

The Board of Trustees is the governing body of *ERFC*. The *ERFC* Board comprises seven members: three appointed by the School Board, three elected by the System's active membership, and one trustee who is neither affiliated with, nor employed by Fairfax County, the Fairfax County School Board, nor by any union or similar organization representing teachers or other Fairfax County employees. The initial six trustees annually select and recommend a seventh *ERFC* Board member, or "individual Trustee," for approval by the Fairfax County School Board. The *ERFC* executive committee comprises the Chairperson and Treasurer.

Benefit provisions for *ERFC* and *ERFC 2001* are established and may be amended by the System's Board of Trustees subject to approval by the School Board. All members are vested for benefits after five years of service. The *ERFC* benefit formula was revised effective July 1, 1988, following changes to the VRS, which the *ERFC* has historically supplemented. The benefit structure is designed to supplement VRS and Social Security benefits to provide a level retirement benefit throughout retirement. *ERFC 2001 Tier 1* and *Tier 2* have a stand-alone structure. Member contributions for *ERFC* and *ERFC 2001* are made through an arrangement that results in a deferral of taxes on the contributions. Further details of member contributions may be found in Article III of both Benefit Structure Documents.

## NOTES TO THE FINANCIAL STATEMENTS

At December 31, 2021, the date of the most recent actuarial valuation, the System's membership consisted of:

Retirees and beneficiaries currently receiving benefits	13,338
Terminated employees entitled to benefits but not yet receiving them	5,783
Active plan members	22,329
<b>TOTAL</b>	<b>41,450</b>

*ERFC* and *ERFC 2001* provide for a variety of benefit payment types. *ERFC*'s payment types include Service Retirement, Reduced Service, Disability, Death-in-Service, and Deferred Retirement. *ERFC 2001*'s payment types include Service Retirement, Death-in-Service, and Deferred Retirement. Minimum eligibility requirements for full service benefits for *ERFC* is either (a) age 65 with 5 years of service or (b) age 55 with 25 years of service. Minimum eligibility requirements for full service benefits for *ERFC 2001 Tier 1* is either (a) age 60 with 5 years of service or (b) any age with 30 years of service. Minimum eligibility requirements for full service benefits from *ERFC 2001 Tier 2* is either (a) age and service equal 90 (the rule of 90) or (b) full Social Security age with five years of service. Annual post-retirement cost-of-living (COLA) increases of 3 percent are effective each March 31 for *ERFC* and *ERFC 2001 Tier 1* members. Participants in their first full year of retirement from *ERFC* and *ERFC 2001 Tier 1* receive a 1.49 percent increase. Participants who retire on or after January 1 receive no COLA increase that first March. Under *ERFC 2001 Tier 2*, the first COLA will equal approximately half of the full COLA amount. Thereafter, the full COLA will equal 100 percent of the Consumer Price Index for all Urban Consumers (CPI-U) for the Washington, D.C. metropolitan area for the period ending in November of each year, capped at 4 percent. Additional detail regarding all benefit payment types can be found in the actuarial valuation and/or the System Plan Document.

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING AND OTHER POLICIES

#### **Basis of Accounting**

The System's financial statements have been prepared under the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America as applicable to governmental units (GAAP). *ERFC* is a fiduciary pension trust fund of Fairfax County Public Schools. Member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due, pursuant to GAAP. Benefits and refunds are recognized when due and payable in accordance with the terms of the System. The costs of administering the System are paid for by the use of investment income and employer and employee contributions.

#### **Fair Value Measurements**

The System categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

## NOTES TO THE FINANCIAL STATEMENTS

- Level 1 Unadjusted quoted prices for identical instruments in active markets.
- Level 2 Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- Level 3 Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value (NAV) per share (or its equivalent) 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 System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. The tables of investments measured at fair value as well as at NAV can be found on page 27.

Short-term securities are reported at fair value when published market prices and quotations are available, or at cost plus accrued interest, which approximates market or fair value.

Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities.

Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique or a bid evaluation.

Debt securities classified in Level 3 of the fair value hierarchy are valued by a third party.

Matrix pricing is used to value securities based on the securities relationship to benchmark quoted prices. Bid evaluations may include reported trades, broker/dealer quotes, issuer spreads, two-sided markets, bids, offers, and reference data including market research publications.

- **Commingled Large Cap Equity Funds**

The objective of these index funds is to invest in securities and collective funds that together are designed to track the performance of the Russell 1000<sup>®</sup>.

- **Commingled Global Equity Funds**

These funds are actively managed, multi-capitalization funds focused on attractively priced companies with strong and/or improving financial productivity. The funds invest in listed global equity securities located in both developed and emerging markets.

- **Commingled Emerging Markets Equity Fund**

This fund invests in common stocks and other forms of equity investments issued by emerging market companies of all sizes to obtain long-term capital appreciation.

## NOTES TO THE FINANCIAL STATEMENTS

- **Commingled Global Fixed Income Fund**  
 This fund seeks to generate strong risk-adjusted returns from the global bond markets. The strategy focuses on selecting securities with attractive valuations in countries with stable to improving structural outlooks and growth trajectories.
- **Commingled Emerging Markets Debt Fund**  
 This fund invests in fixed income securities of “emerging” or developing countries to achieve high current income and long-term capital growth.
- **Private Equity and Debt Partnerships**  
 This type includes investments in limited partnerships, which generally include the following strategies: buyouts, venture capital, mezzanine, distressed debt, growth equity and special situations. These investments have an approximate life of 10 years and are considered illiquid. Redemptions are restricted over the life of the partnership. During the life of the partnerships, distributions are received as underlying partnership investments are realized. As of June 30, 2022, it is probable that all of the investments in this type will be sold at an amount different from the NAV per share of the plan's ownership interest in partners' capital.
- **Infrastructure**  
 This type invests in assets which provide essential services or facilities to a community such as schools, hospitals, transportation, distribution, communication, power generation, water and waste management. These investments can include limited partnerships and commingled funds and are considered illiquid. The investment seeks to provide long-term risk-adjusted returns, a stable income stream and inflation protection.
- **Commingled Multi-Asset Class Solutions**  
 These funds typically have an unconstrained, non-benchmark oriented investment approach with investments across various asset classes. They may invest in, but are not limited to, equities, fixed income, inflation-linked bonds, currencies and commodities. The objective is to provide attractive returns in any type of economic environments.
- **Commingled Real Estate Equity Funds**  
 This type of fund provides diversified exposure to a core portfolio of U.S. real estate investments across different sectors. The investment is primarily focused on income with some value-add properties seeking higher returns from potential appreciation.
- **Private Real Estate**  
 This type of fund is a limited partnership that makes direct or secondary investments in various types of real estate and real estate related entities, such as commingled real estate funds, limited partnerships, joint ventures, real estate operating companies and non-traded REIT vehicles.
- **Hedge Funds - Opportunistic**  
 This is an alternative type of strategy with a typical return objective of cash plus a premium. It invests across different asset classes.

## NOTES TO THE FINANCIAL STATEMENTS

## INVESTMENTS MEASURED BY FAIR VALUE HIERARCHY LEVEL

	6/30/22	FAIR VALUE MEASURES USING		
		QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS	SIGNIFICANT OTHER OBSERVABLE INPUTS	SIGNIFICANT UNOBSERVABLE INPUTS
INVESTMENTS BY FAIR VALUE LEVEL		LEVEL 1	LEVEL 2	LEVEL 3
Short-term securities	\$ 55,357,186	\$ —	\$ 55,357,186	\$ —
Debt securities				
Asset and mortgage backed	147,774,908	—	147,774,908	—
Corporate bonds	274,702,007	—	267,484,871	7,217,136
International bonds	2,403,350	—	2,403,350	—
Convertible securities	5,650,314	400,260	5,250,054	—
Municipal bonds	538,258	—	538,258	—
US Government obligations	140,353,981	140,353,981	—	—
<b>TOTAL DEBT SECURITIES</b>	<b>571,422,818</b>	<b>140,754,241</b>	<b>423,451,441</b>	<b>7,217,136</b>
Equity investments	288,897,994	288,897,994	—	—
<b>TOTAL INVESTMENT AND SHORT-TERM SECURITIES MEASURED BY FAIR VALUE HIERARCHY LEVEL</b>	<b>\$ 915,677,998</b>	<b>\$ 429,652,235</b>	<b>\$ 478,808,627</b>	<b>\$ 7,217,136</b>

## INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

	6/30/22	UNFUNDED COMMITMENTS	REDEMPTION FREQUENCY	REDEMPTION NOTICE PERIOD
Equity investments				
Commingled large cap equity funds	\$ 390,598,945	—	Daily	None
Commingled global equity funds	338,464,595	—	Daily	None
Commingled emerging markets equity fund	113,883,088	—	Daily	3 days
<b>TOTAL EQUITY INVESTMENTS MEASURED AT THE NAV</b>	<b>842,946,628</b>	<b>—</b>		
Fixed income investments				
Commingled global fixed income fund	103,832,166	—	Daily	None
Commingled emerging markets debt fund	77,382,498	—	Monthly	30 days
<b>TOTAL FIXED INCOME INVESTMENTS MEASURED AT THE NAV</b>	<b>181,214,664</b>	<b>—</b>		
Private markets	389,632,067	199,739,006	Not eligible	N/A
Multi Asset Class Solutions	192,343,465	—	Monthly	5 days
Hedge Funds - Opportunistic	263,871,419	—	Monthly	30 days
Real estate - commingled real estate equity funds	174,568,128	—	Daily, quarterly	1-90 days
Real estate - private real estate fund	48,287,492	125,673,861	Not eligible	N/A
<b>TOTAL INVESTMENTS MEASURED AT THE NAV</b>	<b>2,092,863,863</b>	<b>325,412,867</b>		
<b>TOTAL INVESTMENTS AND SHORT-TERM SECURITIES</b>	<b>\$ 3,008,541,861</b>			

## NOTES TO THE FINANCIAL STATEMENTS

### 2. CONTRIBUTION REQUIREMENTS

The contribution requirements for *ERFC* and *ERFC 2001* members are established and may be amended by the System's Board of Trustees with the approval of the School Board. The requirements are based upon a fundamental financial objective of having rates of contribution that remain relatively level from generation to generation of employees. To determine the appropriate employer contribution rates and to assess the extent to which the fundamental financial objective is being achieved, the System has actuarial valuations prepared annually.

Members are required to contribute 3 percent of annual salary. The employer is required to contribute at an actuarially determined rate which was 6.7 percent for fiscal year 2022. The actuarial valuations as of odd numbered years are used to set the employer contribution rate for the two-year period beginning 18 months after the valuation date. As such, the December 31, 2019 valuation recommended that the contribution rate for the two-year period beginning July 1, 2021 to June 30, 2023 be increased from 6.44 to 6.7 percent.

### 3. NET PENSION LIABILITY DISCLOSURES

The components of the System's net pension liability as of June 30, 2022 were as follows:

Total Pension Liability	\$ 3,999,987,949
Plan Fiduciary Net Position	<u>2,997,909,880</u>
Net Pension Liability	<u>\$ 1,002,078,069</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	74.95%

#### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2021, using update procedures to roll forward the total pension liability to the plan's fiscal year end. The actuarial assumptions applied to all periods in the measurement.

#### METHODS AND ASSUMPTIONS USED TO DETERMINE FY 2022 TOTAL PENSION LIABILITY

Actuarial Cost Method	Entry Age Normal
IRS Limit Increases	2.75%
Salary Increases	2.75% to 7.25% based on seniority
Discount Rate	7.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	The mortality table used to measure retired life mortality was 102% of the male rates and 99% of the female rates of the PUB-2010 Teachers table projected generationally with Scale MP-2020. The corresponding Disabled and Employee tables were used for disability and pre-retirement mortality, respectively.

## NOTES TO THE FINANCIAL STATEMENTS

### Single Discount Rate

A single discount rate of 7.0 percent was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.0 percent. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarial determined contribution rates and the member rate. Based on these 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.

### Long-Term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined in conjunction with a formal study of experience in 2020. Based on the recent analysis of expected investment return, asset allocation and relevant Actuarial Standards of Practice, the rate was lowered from 7.25 percent to 7.0 percent. In addition, in consultation with the actuary, ERFC changed the amortization period for assumption changes from 10 years to 20 years in order to continue adopting best actuarial practices.

Segal Marco Advisors supplied best estimates of arithmetic real rates of return table as of the measurement date. The investment consultant's inflation expectation is 2.3 percent.

ASSET CLASS	LONG-TERM EXPECTED REAL RATE OF RETURN
Domestic Equity (Large Cap)	6.2%
Domestic Equity (Small Cap)	7.2%
International Equity	6.8%
International Equity (Small Cap)	8.2%
Emerging International Equity	8.5%
Global Equity	6.4%
Emerging Market Debt	2.8%
US Fixed Income	0.4%
MACS	3.6%
Hedge Funds Opportunistic	4.9%
Infrastructure	6.5%
Real Estate - Core	4.4%
Private Equity	10.8%
Private Debt	6.1%

## NOTES TO THE FINANCIAL STATEMENTS

### Pension Liability Sensitivity

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the table that follows presents the plan's net pension liability, calculated using a single discount rate of 7.0 percent as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower (6.0 percent) or 1-percentage-point higher (8.0 percent). Sensitivity results at 6.0 percent interest were based upon computer runs. Results at 8.0 percent were based upon the 6.0 percent results and estimation techniques.

	1% Decrease 6.00%	Assumption 7.00%	1% Increase 8.00%
Net pension liability	<u>\$ 1,519,640,176</u>	<u>\$ 1,002,078,069</u>	<u>\$ 500,747,426</u>

The Schedule of Changes in Net Pension Liability and Related Ratios, presented as RSI following the Notes to the Financial Statements, presents multi-year trend information about whether the plan's net position is increasing or decreasing over time relative to the total pension liability.

### 4. INVESTMENTS

The authority to establish pension funds is set forth in sections 51.1-800 of the Code of Virginia (Code), which provides that the County may purchase investments for pension funds (including common and preferred stocks and corporate bonds) that meet the standard of judgment and care set forth in Section 51.1-124 of the Code.

The System does not have investments (other than U.S. government and U.S. government guaranteed obligations) in any one organization that represents 5 percent or more of net position restricted for pensions.

### Investment Policy

The System investment policy is established by the Board of Trustees based on information and/or recommendations provided by ERFC's investment consultant and ERFC staff. The policy may be amended as necessary by the Board of Trustees and is reviewed at least annually. There were no significant investment policy changes during the fiscal year. The Fund's asset structure is enumerated in the investment policy and reflects a proper balance of the Fund's needs for liquidity, growth of assets and the risk tolerance of the Trustees. The target asset mix, consistent with the achievement of the long-term objective of the Fund, is presented on the following page.

## NOTES TO THE FINANCIAL STATEMENTS

<b>SECURITY CLASS</b>	<b>STRATEGIC TARGETS AS OF JUNE 30, 2022</b>
Large Cap Equity	14.0 %
Small Cap Equity	10.0
International Equity	5.0
International Small Cap Equity	5.0
Emerging Market Equity	5.0
Global Equity	5.0
US Fixed Income	21.0
Emerging Market Debt	2.0
Multi-Asset Class Solutions (MACS)	4.0
Real Estate	9.0
Hedge Funds - Opportunistic	5.0
Infrastructure	4.0
Private Equity	7.0
Private Debt	4.0
<b>TOTAL</b>	<b>100.0 %</b>

### Rate of Return

For the year ended June 30, 2022, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was (7.29) percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. This method differs from the time-weighted rate of return calculation referenced at the beginning of the Management Discussion and Analysis, which is performed on a gross basis.

### Derivative Financial Instruments

As permitted by the Code, ERFC invests in derivative instruments on a limited basis in accordance with the Board of Trustees' investment policy. Investment in derivatives allows the System to increase earnings and/or hedge against potential losses. The risks associated with derivative investments include market risk resulting from fluctuations in interest and currency rates, the credit worthiness of counter parties to any contracts entered into, and the credit worthiness of mortgages related to collateralized mortgage obligations (CMOs). Specific authorization by the Trustees is required should investment managers seek to purchase securities on margin or leverage. During fiscal year 2022, the System's fair value of CMO's was \$3,682,269.

Regarding certain risk factors, GAAP requires that governments report their exposure to investment risks in four categories: interest rate risk, credit risk, concentration of credit risk, and foreign currency risk.

### Interest Rate Risk

ERFC's fixed income managers use the effective duration method to control interest rate risk. Regarding maturity, ERFC does not place limits on these fixed income managers. However, it does expect the average duration to be within 30 percent of their respective benchmarks. One of the managers is expected to be within 50 percent of the Bloomberg Barclays Capital Government/Credit Index.

## NOTES TO THE FINANCIAL STATEMENTS

As of June 30, 2022, the System had the following fixed income investments, none of which are highly sensitive to changes in interest rates:

INVESTMENT CATEGORY	AMOUNT	EFFECTIVE DURATION*	PERCENTAGE OF FIXED
Asset and Mortgage Backed	\$ 147,774,908	1.23	25.9 %
Corporate Bonds	274,702,007	2.68	48.0 %
International Bonds	2,403,350	0.05	0.4 %
Convertible Securities	5,650,314	0.12	1.0 %
Municipal Bonds	538,258	0.02	0.1 %
US Government	140,353,981	2.01	24.6 %
<b>TOTAL</b>	<b>\$ 571,422,818</b>	<b>6.11</b>	<b>100.0 %</b>
<small>* Weighted Duration in years</small>			
SHORT-TERM			
Short-term Investment Funds	\$ 55,357,186	—	
<b>TOTAL SHORT-TERM</b>	<b>\$ 55,357,186</b>	<b>—</b>	

### Credit Risk

The System's policy on credit quality states that the average credit quality of the portfolio must have a rate of A or better. Up to 20 percent of the portfolio may be invested in below investment grade (that is, Moody's Baa or Standard & Poor's BBB ratings). If a security has a split rating, the lower rating will be considered in meeting the minimum quality standard. One of ERFC's fixed income managers may invest up to 35 percent in below investment grade securities. For this manager, if a security has a split rating, the higher rating shall be considered.

The Credit Quality Summary presented on the following page lists the ratings of all of ERFC's fixed income investments as of June 30, 2022, excluding pooled funds, according to Moody's Investment Services and Standard & Poor's.

## NOTES TO THE FINANCIAL STATEMENTS

INVESTMENT TYPE	AMOUNT	RATING	PERCENT OF FIXED
Asset and Mortgage Backed	\$ 26,251,230	AAA	6.1 %
	65,122,891	AA	15.1 %
	14,733,666	A	3.4 %
	23,844,272	BBB	5.5 %
	2,457,124	BB	0.6 %
	1,442,252	B	0.3 %
	2,024,222	CCC	0.5 %
	4,430,679	CC	1.0 %
	2,159,430	C	0.5 %
	5,309,142	Not Rated	1.2 %
	Convertible Securities	3,372,639	BBB
2,277,675		B	0.5 %
Corporate Bonds	2,100,260	AAA	0.5 %
	4,548,096	AA	1.1 %
	26,804,413	A	6.2 %
	160,276,366	BBB	37.3 %
	51,204,355	BB	11.9 %
	26,504,879	B	6.1 %
	2,091,415	CCC	0.5 %
	26,527	CC	— %
	127,567	C	— %
	9,218	Below C	— %
International Bonds	1,008,911	Not Rated	0.2 %
	451,156	AA	0.1 %
	1,952,194	BBB	0.5 %
Municipal Bonds	538,258	BBB	0.1 %
<b>TOTAL</b>	<b>\$ 431,068,837</b>	<b>—%</b>	<b>100.0 %</b>

### Concentration of Credit Risk

The System's policy limits the securities of any one issuer to 10 percent at cost and 15 percent at market of each fixed income portfolio. The policy allows an exception for government securities and its agencies.

At June 30, 2022, and as addressed previously, the System had three active fixed income managers. The portfolios had values of \$166.5 million, \$184.9 million and \$240.8 million. The fair value of the largest issue other than the U.S. Government in the portfolios of the active managers, excluding pooled funds, was 1.49 percent of that portfolio.

### Deposits

At June 30, 2022, short-term investments with the custodial bank totaled \$55.4 million. These investments consist of U.S. Treasury bills, are collateralized with securities held by the agent in the System's name or are in a short-term investment pool.

## NOTES TO THE FINANCIAL STATEMENTS

### Cash

ERFC maintains its 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. For the fiscal year ended June 30, 2022, the cash balance of \$1,336,057 represents funds that could not be invested in the County's enhanced cash fund until July 1, 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. As of June 30, 2022, cash with the fiscal agent totaled \$2,536,933. This cash is insured and represents receipts from investment sales occurring on the last day of the month.

Cash received as collateral on securities lending transactions and investments with such cash are reported as assets along with the related liability for collateral received.

### Securities Lending

The System's Board of Trustees' policy permits the fund to participate in a securities lending program. The securities lending program is administered by the System's custodian. Certain securities of the System are loaned to approved broker/dealers who borrow the securities and provide collateral in the form of cash, U.S. Treasury or Government Agency Securities, letters of credit issued by approved banks, or other securities of a quality specified in the securities lending agreement. Collateral must be provided in the amount of 102 percent of fair value for domestic securities and 105 percent for international securities. The System did not impose any restrictions during the period on the number of loans the custodian made on its behalf. The custodian provides for 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 for income of the securities while on loan. The fair value of collateral is monitored daily by the custodian.

Cash collateral is invested in a fund maintained by the custodian or its affiliate. Per stated custodian policy, the maximum weighted average maturity of the fund is 60 days. Investment income from the securities lending program is shared 75/25 by ERFC and the custodian, respectively. At year-end, the System had no overall credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System.

Cash received as collateral and related liability of \$100,361,317 as of June 30, 2022, are shown on the Statement of Fiduciary Net Position. As of June 30, 2022, the fair value of securities on loan for cash collateral was \$97,547,926. Securities received as collateral are not reported as assets and liabilities since ERFC does not have the ability to pledge or sell the collateral securities absent borrower default.

## NOTES TO THE FINANCIAL STATEMENTS

On June 30, 2022, the array of securities the System had on loan for cash and non-cash collateral took this form:

<b>SECURITIES</b>	<b>FAIR VALUE</b>	<b>CASH COLLATERAL</b>
Domestic Corporate Bonds	\$ 36,486,519	\$ 37,421,097
International Bonds	1,494,835	1,720,268
Domestic Stock	49,339,705	50,523,514
International Stock	1,335,226	1,621,079
US Government Securities	8,891,641	9,075,359
<b>TOTAL</b>	<b>\$ 97,547,926</b>	<b>\$ 100,361,317</b>

### Custodial Credit Risk

Custodial credit risk is the risk that in the event of a bank failure, the system's funds will be lost. However, the System investments and deposits are not exposed to custodial credit risk since they are held by the agent in the System name. Other investments such as mutual funds, a short-term investment pool, and a cash collateral investment pool which invests cash collateral for securities on loan, are not exposed to custodial risk due to their non-physical form. As such, the System does not have a custodial credit risk policy.

The mix of investments held by the custodian on June 30, 2022, was as follows:

<b>INVESTMENT TYPE</b>	<b>FAIR VALUE</b>
Stocks	\$ 288,897,994
Bonds and Mortgage Securities	431,068,837
US Government Obligations	140,353,981
Real Estate	222,855,620
Multi Asset Class Solutions (MACS)	192,343,465
Hedge Funds - Opportunistic	263,871,419
Private Equity	309,762,531
Private Debt	50,349,798
Infrastructure	29,519,738
Commingled Fixed Income Funds	181,214,664
Commingled Equity Funds	842,946,628
<b>SUBTOTAL INVESTMENTS</b>	<b>2,953,184,675</b>
Cash collateral for securities on loan	100,361,317
<b>TOTAL</b>	<b>\$ 3,053,545,992</b>

### Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The System currency risk exposures primarily exist in the international equity and active fixed income holdings. At the present time, there are no specific foreign currency guidelines for equities or active fixed income investments; however, equity and fixed income managers are all measured against specific performance standards and risk guidelines identified in ERFC's investment policy.

## NOTES TO THE FINANCIAL STATEMENTS

The following chart provides a summary of System's fair value of foreign currency risk as of June 30, 2022:

CURRENCY	CASH & CASH EQUIVALENTS	EQUITIES	FIXED INCOME SECURITIES	PRIVATE MARKETS	GRAND TOTAL
AUSTRALIAN DOLLAR	\$ 2,173	\$ —	\$ —	\$ —	\$ 2,173
BRAZIL REAL	36,656	—	—	—	36,656
CANADIAN DOLLAR	45,590	—	—	—	45,590
CHILEAN PESO	11,064	—	—	—	11,064
CHINESE YUAN RENMINBI	16,539	—	—	—	16,539
DANISH KRONE	167,774	5,178,361	—	—	5,346,135
EURO CURRENCY UNIT	539,408	14,538,538	—	29,831,797	44,909,743
HONG KONG DOLLAR	39,843	2,319,585	—	—	2,359,428
INDONESIAN RUPIAH	12,583	—	—	—	12,583
ISRAELI SHEKEL	11,699	—	—	—	11,699
JAPANESE YEN	169,176	3,122,722	—	—	3,291,898
MALAYSIAN RINGGIT	9,670	—	—	—	9,670
MEXICAN PESO	20,594	—	1,952,194	—	1,972,788
NEW TAIWAN DOLLAR	26,132	2,673,483	—	—	2,699,615
NEW ZEALAND DOLLAR	8,060	678,794	—	—	686,854
NORWEGIAN KRONE	7,440	1,789,089	—	—	1,796,529
PHILIPPINES PESO	1,349	—	—	—	1,349
POLISH ZLOTY	1,273	—	—	—	1,273
POUND STERLING	45,829	3,197,734	—	—	3,243,563
QATARI RIYAL	—	—	273,244	—	273,244
SOUTH AFRICAN RAND	1,939	—	—	—	1,939
SOUTH KOREAN WON	378	270	—	—	648
SWEDISH KRONA	10,643	3,196,831	—	—	3,207,474
SWISS FRANC	593,127	3,159,055	—	—	3,752,182
THAILAND BAHT	3,782	—	—	—	3,782
UAE DIRHAM	—	—	177,913	—	177,913
<b>GRAND TOTAL</b>	<b>\$ 1,782,721</b>	<b>\$ 39,854,462</b>	<b>\$ 2,403,351</b>	<b>\$ 29,831,797</b>	<b>\$ 73,872,331</b>

## NOTES TO THE FINANCIAL STATEMENTS

### 5. INCOME TAXES

The Internal Revenue Service (IRS) issued a determination letter on December 15, 2016, 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. In the opinion of the plan administrator, the System and its underlying trust have operated within the terms of the IRS regulations and are qualified under the applicable provisions of the Internal Revenue Code.

### 6. LEASES

On July 1, 2021, ERFC entered into a 24 month lease as Lessee for the use of an office building (Building). An initial lease liability was recorded in the amount of \$626,901. As of June 30, 2022, the value of the lease liability was \$317,904. ERFC is required to make monthly fixed payments of \$25,907. The lease has an interest rate of 0.435%. The Building's estimated useful life was 240 months as of the contract commencement. The value of the right to use asset as of June 30, 2022 was \$626,901 with accumulated amortization of \$313,451.

On July 1, 2021, ERFC entered into two leases as Lessee for the use of two copiers. The lease terms are 31 months and 35 months respectively. An initial lease liability was recorded in the amount of \$4,196 for the lease with the 31 month lease term and \$20,612 for the other copier with the 35 month lease term. ERFC is required to make monthly fixed payments of \$149. and \$654, respectively. Both leases have an interest rate of 7.18%. The value of the right-to-use-asset as of June 30, 2022 was \$4,196 with accumulated amortization of \$1,625 for the copier with the 31 month lease term, while the value of the right to use asset as of June 30, 2022 was \$20,612 with accumulated amortization of \$7,066 for the copier with the 35 month lease term.

The System's lease assets and accumulated amortization by asset class are summarized in the table below:

ASSET CLASS	LEASE ASSET VALUE	ACCUMULATED AMORTIZATION
Copiers	\$ 24,807	\$ 8,691
Buildings	626,902	313,451
Total Leases	\$ 651,709	\$ 322,142

The System's lease liability schedule as of June 30, 2022 is shown below:

FISCAL YEAR	PRINCIPAL PAYMENTS	INTEREST PAYMENTS	TOTAL PAYMENTS
2023	\$ 326,626	\$ 1,664	\$ 328,290
2024	\$ 7,964	\$ 276	\$ 8,240
Total	\$ 334,590	\$ 1,940	\$ 336,530

## NOTES TO THE FINANCIAL STATEMENTS

### 7. IMPLEMENTATION OF NEW ACCOUNTING PRONOUNCEMENT

In fiscal year 2022, the System implemented GASB Statement No. 87, *Leases*. This statement addresses accounting and financial reporting for leases by governments. It requires recognition of certain lease assets and liabilities, and establishes a single model for lease accounting. Under this Statement, lessees are required to recognize lease liabilities and intangible right-to-use lease assets. Accordingly, the following prior period adjustment was reported to reflect the restated net position:

<b>Statement of Changes in Fiduciary Net Position</b>	
Net position - July 1, 2021, as previously reported	\$ 3,272,151,084
Prior period adjustment	(4,001)
Net position - July 1, 2021, as restated	<u>\$ 3,272,147,083</u>

## REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

Historical contribution information is presented herein for the last ten fiscal years. This information is intended to help users assess the System's funding status on a going-concern basis, assess progress made in accumulating assets to pay benefits when due, and make comparisons with other public employee retirement systems. Actuarially determined employer contribution rates are calculated as of December 31 of odd numbered years, and determine the contribution rate for the two-year period beginning 18 months after the valuation date. In particular, the December 31, 2019 valuation determined the contribution rates for fiscal years 2022 and 2023.

Analysis of the dollar amounts of plan net position, total pension liability, and net pension liability in isolation can be misleading. Expressing plan net position as a percentage of the total pension liability provides one indication of the System's funding status. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the system.

Trends in the net pension liability and covered payroll are both affected by inflation. Expressing the net pension liability as a percentage of covered payroll approximately adjusts for the effects of inflation and aids in the analysis of the System's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller the percentage, the stronger the system.

The Schedule of Changes in Net Pension Liability and Related Ratios on page 40 illustrates whether the plan's net position is increasing or decreasing over time relative to the total pension liability, and the net pension liability as it relates to covered payroll. As addressed previously, the most recent actuarial valuation was effective December 31, 2021. The Schedule of Changes in Net Pension Liability and Related Ratios was prepared using procedures to roll forward the results of the most recent actuarial valuation to the fiscal year ending June 30, 2022.

### SCHEDULE OF CONTRIBUTIONS

(Last 10 Fiscal Years)

FISCAL YEAR ENDING JUNE 30	ACTUARIALLY DETERMINED CONTRIBUTION	ACTUAL CONTRIBUTION	CONTRIBUTION DEFICIENCY (EXCESS)	COVERED PAYROLL	ACTUAL CONTRIBUTION AS A % OF COVERED PAYROLL
2013	68,242,010	67,734,634	507,376	1,268,438,838	5.34%
2014	72,748,999	74,174,082	(1,425,083)	1,324,537,175	5.60%
2015	74,791,177	74,324,396	466,781	1,328,419,881	5.59%
2016	76,069,503	76,599,695	(530,192)	1,374,735,094	5.57%
2017	80,305,269	80,094,538	210,731	1,430,259,607	5.60%
2018	93,543,467	91,704,877	1,838,590	1,469,629,439	6.24%
2019	96,982,911	96,982,911	—	1,549,247,780	6.26%
2020	104,741,255	104,741,255	—	1,626,417,003	6.44%
2021	104,784,310	104,784,310	—	1,627,085,559	6.44%
2022	111,119,456	111,119,456	—	1,658,499,343	6.70%

Covered payroll in 2016 and later is reported in accordance with GASB 82. The ratio in the last row cannot always be compared to contributions required by the ERFC Board's funding policy.

## REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

FISCAL YEAR ENDING JUNE 30	2022	2021	2020	2019	2018
<b>TOTAL PENSION LIABILITY</b>					
Service Cost	\$ 92,063,438	\$ 91,770,647	\$ 92,719,549	\$ 90,633,074	\$ 88,599,697
Interest on the Total Pension Liability	268,463,381	253,330,122	243,578,788	231,477,042	221,106,804
Changes of benefit terms	—	—	—	—	—
Difference between expected and actual experience of the Total Pension Liability	(5,133,211)	29,758,913	(12,696,483)	27,726,555	12,140,768
Changes of assumptions	133,042,334	(17,342,443)	—	—	—
Benefit payments, including refunds of employee contributions	(198,655,496)	(191,265,982)	(185,986,496)	(181,932,073)	(177,720,296)
<b>Net Change in Total Pension Liability</b>	<b>\$ 289,780,446</b>	<b>\$ 166,251,257</b>	<b>\$ 137,615,358</b>	<b>\$ 167,904,598</b>	<b>\$ 144,126,973</b>
<b>Total Pension Liability - Beginning</b>	<b>3,710,207,503</b>	<b>3,543,956,246</b>	<b>3,406,340,888</b>	<b>3,238,436,290</b>	<b>3,094,309,317</b>
<b>Total Pension Liability - Ending</b>	<b>\$ 3,999,987,949</b>	<b>\$ 3,710,207,503</b>	<b>\$ 3,543,956,246</b>	<b>\$ 3,406,340,888</b>	<b>\$ 3,238,436,290</b>
<b>PLAN FIDUCIARY NET POSITION</b>					
Contributions - Employer	\$ 111,119,456	\$ 104,784,310	\$ 104,741,255	\$ 96,982,911	\$ 91,704,877
Contributions - Member	50,017,839	48,934,340	49,095,601	46,645,396	44,169,100
Net Investment Income	(232,237,621)	720,738,680	108,472,534	117,727,500	188,145,489
Benefit Payments, including refunds of employee contributions	(198,655,496)	(191,265,982)	(185,986,496)	(181,932,073)	(177,720,296)
Pension Plan Administrative Expense	(4,481,381)	(4,423,439)	(4,381,191)	(4,262,159)	(4,300,927)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>(274,237,203)</b>	<b>678,767,909</b>	<b>71,941,703</b>	<b>75,161,575</b>	<b>141,998,243</b>
Plan Fiduciary Net Position - Beginning, as previously reported	3,272,151,084	2,593,383,175	2,521,441,472	2,446,279,897	2,304,281,654
Prior Period Adjustment	(4,001)	—	—	—	—
Plan Fiduciary Net Position - Beginning	3,272,147,083	2,593,383,175	2,521,441,472	2,446,279,897	2,304,281,654
<b>Plan Fiduciary Net Position - Ending</b>	<b>2,997,909,880</b>	<b>3,272,151,084</b>	<b>2,593,383,175</b>	<b>2,521,441,472</b>	<b>2,446,279,897</b>
Net Pension Liability - Ending	<b>\$ 1,002,078,069</b>	<b>\$ 438,056,419</b>	<b>\$ 950,573,071</b>	<b>\$ 884,899,416</b>	<b>\$ 792,156,393</b>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	74.95 %	88.19 %	73.18 %	74.02 %	75.54 %
Covered Payroll	\$ 1,658,499,343	\$ 1,627,085,559	\$ 1,626,417,003	\$ 1,549,247,780	\$ 1,469,629,439
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	<b>60.42 %</b>	<b>26.93 %</b>	<b>58.45 %</b>	<b>57.12 %</b>	<b>53.90 %</b>

This schedule presents information for available years. additional years will be added prospectively until 10 years of information is available.

## REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

2017	2016	2015	2014	FISCAL YEAR ENDING JUNE 30
<b>TOTAL PENSION LIABILITY</b>				
\$ 78,925,763	\$ 77,760,915	\$ 77,493,999	\$ 75,787,752	Service Cost
209,515,636	205,720,047	198,938,575	192,723,577	Interest on the Total Pension Liability
(1,038,793)	—	—	—	Changes of benefit terms
19,857,344	(11,011,883)	(17,051,192)	(19,051,630)	Difference between expected and actual experience of the Total Pension Liability
23,334,195	45,752,095	—	—	Changes of assumptions
(173,385,583)	(170,347,847)	(167,842,576)	(167,049,790)	Benefit payments, including refunds of employee contributions
157,208,562	147,873,327	91,538,806	82,409,909	<b>Net Change in Total Pension Liability</b>
2,937,100,755	2,789,227,428	2,697,688,622	2,615,278,713	<b>Total Pension Liability - Beginning</b>
\$ 3,094,309,317	\$ 2,937,100,755	\$ 2,789,227,428	\$ 2,697,688,622	<b>Total Pension Liability - Ending</b>
<b>PLAN FIDUCIARY NET POSITION</b>				
80,094,538	76,599,695	74,324,396	74,174,082	Contributions - Employer
43,062,632	41,383,642	39,982,963	40,018,590	Contributions - Member
250,981,777	(15,766,967)	32,083,908	304,640,803	Net Investment Income
(173,385,583)	(170,347,847)	(167,842,576)	(167,049,790)	Benefit Payments, including refunds of employee contributions
(4,059,408)	(4,004,882)	(3,751,825)	(3,629,320)	Pension Plan Administrative Expense
196,693,956	(72,136,359)	(25,203,134)	248,154,365	<b>Net Change in Plan Fiduciary Net Position</b>
2,107,587,698	2,179,724,057	2,204,927,191	1,956,772,826	Plan Fiduciary Net Position - Beginning, as previously reported
—	—	—	—	Prior Period Adjustment
2,107,587,698	2,179,724,057	2,204,927,191	1,956,772,826	Plan Fiduciary Net Position - Beginning
2,304,281,654	2,107,587,698	2,179,724,057	2,204,927,191	<b>Plan Fiduciary Net Position - Ending</b>
\$ 790,027,663	\$ 829,513,057	\$ 609,503,371	\$ 492,761,431	Net Pension Liability - Ending
74.47 %	71.76 %	78.15 %	81.73 %	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
\$ 1,430,259,607	\$ 1,374,735,094	\$ 1,366,029,848	\$ 1,324,537,175	Covered Payroll
55.24 %	60.34 %	44.62 %	37.20 %	<b>Net Pension Liability as a Percentage of Covered Payroll</b>

# REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

## SCHEDULE OF MONEY-WEIGHTED RATE OF RETURN

FISCAL YEAR ENDING JUNE 30	Annual Money-weighted Rate of Return, Net of Investment Expense
2014	15.91 %
2015	1.49 %
2016	(0.63)%
2017	12.14 %
2018	8.29 %
2019	4.88 %
2020	4.49 %
2021	27.82 %
2022	(7.29)%

This schedule presents information for available years. additional years will be added prospectively until 10 years of information is available.

## OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

### SUMMARY OF SIGNIFICANT CHANGES TO THE PENSION SYSTEM

The following provides a summary of the composite employer and employee contribution rates for the last ten fiscal years as a percent of salary and other significant changes to the pension system during the past fiscal years.

Fiscal Year Ended	Composite Employer	Employee	Total
2013	5.34 %	3.00 %	8.34 %
2014	5.60	3.00	8.60
2015	5.60	3.00	8.60
2016	5.60	3.00	8.60
2017	5.60	3.00	8.60
2018	6.24	3.00	9.24
2019	6.26	3.00	9.26
2020	6.44	3.00	9.44
2021	6.44	3.00	9.44
2022	6.70	3.00	9.70

- April 27, 2017 — ERFC members hired on or after July 1, 2017 are members of *ERFC 2001 Tier 2*. For all members, the annual interest rate credited on member accounts was reduced.
- July 1, 2006 — The implementation of a Benefit Restoration Plan in order to make benefit payments in excess of the limits established by Section 415 of the Internal Revenue Code.
- April 29, 2004 — The Board of Trustees agreed to transition to calendar year actuarial valuations.
- December 18, 2003 — Effective July 1, 2004, members hired prior to July 1, 2001 (*ERFC Benefit Structure*), are eligible for a Level Lifetime Benefit (LLB) that is calculated by determining the annuitized value of the greater of their accumulated contribution balance or the present value of the currently provided defined benefit. The following changes apply to members hired on or after July 1, 2001 (*ERFC 2001 Benefit Structure*):
  - The defined contribution component of the benefit structure that was to be offered as an option to members on July 1, 2006, was eliminated.
  - The matching contribution provisions of the benefit structure were eliminated effective July 1, 2004. Members who met the requirements for a contribution match as of June 30, 2004, had the match credited to their accounts on June 30, 2004.
  - Beginning July 1, 2004, members who retire are eligible for a minimum benefit that is calculated by determining the annuitized value of their accumulated contribution balance.
- July 24, 2003 — The Working After Retirement (WAR) program is closed to new entrants, effective June 30, 2004, which is two years earlier than originally planned.

## OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

**SCHEDULE OF ADMINISTRATIVE, DEPRECIATION AND AMORTIZATION EXPENSES****Fiscal Year Ended June 30, 2022**

PERSONNEL SERVICES	
Salaries and wages	\$ 2,120,237
Retirement contributions	531,619
Insurance	289,212
Social security	165,072
<b>TOTAL PERSONNEL SERVICES</b>	<b>3,106,140</b>
PROFESSIONAL SERVICES	
Actuarial	116,833
Legal	283,500
Payroll disbursement	65,133
Plan automation support	62,748
Audit	56,879
<b>TOTAL PROFESSIONAL SERVICES</b>	<b>585,093</b>
COMMUNICATIONS	
Printing	9,370
Postage	50
<b>TOTAL COMMUNICATIONS</b>	<b>9,420</b>
SUPPLIES	
Office supplies	6,144
Dues and subscriptions	12,594
<b>TOTAL SUPPLIES</b>	<b>18,738</b>
OTHER SERVICES AND CHARGES	
Board travel and staff development	128,638
Equipment	233,739
Building rent	
Depreciation and amortization expense and asset disposal	326,219
Miscellaneous	73,394
<b>TOTAL OTHER SERVICES AND CHARGES</b>	<b>761,990</b>
<b>TOTAL ADMINISTRATIVE EXPENSES AND DEPRECIATION EXPENSES</b>	<b>\$ 4,481,381</b>

## OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

## SCHEDULE OF INVESTMENT EXPENSES

Fiscal Year Ended June 30, 2022

## INVESTMENT MANAGEMENT FEES

## Fixed income managers

DoubleLine Capital, L.P.	\$ 422,517
Fidelity Institutional Asset Management	456,173
Loomis-Sayles and Company, L.P.	810,773
Mellon Capital Management Corporation	26,108
Mondrian Investment Partners (US), Inc.	481,486

## Equity managers

Cramer Rosenthal McGlynn, LLC	623,951
Mellon Capital Management Corporation	60,732
Schroder Investment Management North America, Ltd.	658,652
Westfield Capital Management	594,876

## International managers

Acadian Asset Management, Inc.	623,770
William Blair & Company	1,757,726

## Multi Asset Class Solutions (MACS)

Wellington Management Company LLP	801,848
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**TOTAL INVESTMENT MANAGEMENT FEES** **7,318,612**

## OTHER INVESTMENT SERVICE FEES

Custodial fees - Mellon Trust	347,534
Investment consultant fees - Meketa Investment Group	775,000
Investment consultant fees - Segal Marco Advisors	315,000
Foreign tax consulting - Pricewaterhousecoopers	4,620
Investment salaries	356,675

**TOTAL OTHER INVESTMENT SERVICE FEES** **1,798,829****TOTAL INVESTMENT EXPENSES<sup>1</sup>** **\$ 9,117,441**

<sup>1</sup> Some investment fees are netted directly against assets under management. See Schedule of Investment Manager Fees located within the Investment Section on page 69.

## OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

**SCHEDULE OF PROFESSIONAL SERVICE FEES****Fiscal Year Ended June 30, 2022**

<b>SERVICE PROVIDER</b>	<b>NATURE OF SERVICE</b>	<b>AMOUNT</b>
Aon Consulting, Inc.	Actuary	\$ 116,833
Levi, Ray & Shoup, Inc.	Plan automation support	62,748
Bredhoff & Kaiser, PLLC.	Legal counsel	263,308
Reed Smith, LLP	Legal counsel	18,125
Groom Law Group	Legal counsel	2,067
ADP Payroll Services	Pension disbursements	65,133
Cherry Bekaert LLP	Audit	56,879
<b>TOTAL PROFESSIONAL SERVICE FEES</b>		<b>\$ 585,093</b>

# INVESTMENT

UNAUDITED

- 
- Consultant Report on Investment Activity
  - Strategic Review and Investment Policy
  - Investment Managers
  - Asset Structure
  - Investment Results
  - Schedules of Ten Largest  
Equity & Fixed Income Holdings
  - Schedule of Brokerage Commissions
  - Investment Summary
  - Schedule of Investment Management Fees

# CONSULTANT REPORT ON INVESTMENT ACTIVITY



333 West 34<sup>th</sup> Street New York, NY 10001-2402  
212.251.5061 www.segalmarco.com

November 1, 2022

Board of Trustees  
The Educational Employees' Supplementary Retirement System of Fairfax County ("ERFC")  
8001 Forbes Place, Suite 300  
Springfield, VA 22151

**Re: Report of Investment Activity for Fiscal Year 2022**

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Dear Trustees:

This letter summarizes the structure and performance of the Educational Employees' Supplementary Retirement System of Fairfax County ("ERFC") Fund through the fiscal year ending June 30, 2022. This letter will also highlight any changes to the plan in fiscal year 2022.

**ERFC Asset Allocation**

The Trustees establish Investment Policy asset allocation targets after considering the long-term growth prospects of a diversified portfolio of investments and the expected costs of the Plan participants' benefits. Asset allocation refers to the percentages of the ERFC Fund assets that are invested in stocks, bonds, and private market investments. In order to participate in the broad market performance, while keeping Fund expenses low, the Fund invests in passive, indexed strategies for the majority of its U.S. and Non-U.S. large capitalization public equity allocation. For ERFC, diversification is very important to long-term planning.

At the end of the 2022 fiscal year, the Trustees reviewed a new asset allocation study and decided to add natural resources to the private markets' allocation. The new asset allocation chosen also increased the target allocation to fixed income and reduced Infrastructure, Real Estate, US Large and Small Cap Equity and Global Equity slightly. This review of the asset allocation mix is a continual and evolving process to help the plan achieve the optimal mix over time to meet its obligations.

As of the June 30 fiscal year-end, the Fund was in compliance with policy target ranges, with the exception of hedge funds and private equities, both of which were outside of the allowable ranges. This was due to timing around the changes to the asset allocation. The allocating of assets to private markets takes time and certain asset classes will be out of ranges as these other asset classes take time in achieving their target. The overall asset allocation percentages included 38.4% in equities, 7.7% in real estate, 25.8% in fixed income, 8.6% in hedge fund strategies, 11.8% in private equity/debt, 6.4% in multi asset class strategies, 1.0% in infrastructure, and 0.2% in cash. Over the long-term, which is the framework for considering the term structure of the Plans' liabilities, we

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## CONSULTANT REPORT ON INVESTMENT ACTIVITY

November 1, 2022

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expect the asset allocation will continue to meet the benefit needs while providing growth and preservation of principal.

### **Economic and Market Commentary**

In the second half of the 2022 fiscal year, all equities were in negative territory. Heightened inflation and tightening monetary policy led to recession fears and weighed on sentiment across equity markets. There has not been much differentiation between riskier assets and defensively oriented fixed income assets, and there has been a broad sell off in risk assets as a result of higher interest rates and inflation. Equity markets have been in the process of discounting rising interest rates and the prospect of a recession in the future.

The U.S. stock market, as measured by the benchmark, Russell 3000 Index, returned -13.87% for fiscal year 2022. Inflation continued to dominate headlines as CPI increased 9.1% year over year in June, the largest one-year increase since 1981. This prompted the Federal Reserve to hike rates by 0.75%. All sectors in the Russell 3000 Index, except for consumer staples, energy, healthcare, and utilities, saw negative returns for the fiscal year period, primarily due to inflation and slowing economic growth. The energy sector (+39.99%) came out the strongest, followed by utilities (+14.30%).

Non-U.S. developed equities also produced losses during the fiscal period, as well as during the first half of 2022. The non-U.S. equity market, as measured by the benchmark MSCI EAFE Index, returned -17.77% for fiscal year 2022. The war in Ukraine continued to weigh on markets and recession fears weighed on stock valuations. Europe struggled during the year as the European Central Bank's announcement that it would end its asset purchases and raise the deposit rate along with the Bank of England's interest hikes. The U.K. market outperformed broad international developed indices, but the Japanese market trailed other developed markets, as the yen weakened relative to the U.S. dollar. The Bank of Japan maintained its loose monetary stance despite inflation beginning to hit the Japanese economy. All sectors in the MSCI EAFE, except for energy, posted double digit losses during the fiscal year period with IT (-30.04%) and consumer discretionary (-27.57%) being the worst performing.

Emerging markets stocks demonstrated weak performance over the fiscal year period as strength in the U.S. dollar and falling commodity prices were headwinds. Despite the negative performance, emerging markets outperformed both developed international and U.S. markets during the second quarter of 2022 largely due to China's positive performance. China led the way in terms of being the only emerging market posting a positive return during the second quarter of 2022 (+3.4%) as COVID-10 lockdown measures were relaxed and the economy began to reopen. Latin America's -16.08% return for the year was driven by a drop in industrial metals and agriculture prices. Asian markets were among the weakest on a fiscal year basis given regulatory actions taken by the Chinese government and COVID lockdowns at the beginning of the fiscal year. The emerging market asset class, as measured by the benchmark MSCI Emerging Markets Index, returned -25.28% for fiscal year 2022.

Within the fixed income market, the yield curve rose significantly as the Federal Reserve hiked rates in both May and June, indicating future rate increases in 2022. Shorter-maturity yields rose, with the 1- and 3-year Treasuries rising by 117 basis points and 54 basis points respectively over

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# CONSULTANT REPORT ON INVESTMENT ACTIVITY

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the second quarter of 2022. The 5-, 7-, 10-, and 20-year Treasury yields also all increased during the quarter as well. Fiscal year returns from fixed income were all in negative territory, except for the FTSE 3-Month T-Bill and Hueler Stable Value Index, which posted slight gains.

### **Fund Summary of Investment Performance**

On a net of fee basis, the Fund earned a return of -8.7% for the one-year period ending June 30, 2022 and ranked in the 60<sup>th</sup> percentile of public funds greater than \$1 billion within the Investment Metrics Public Plan Universe. The Fund did outpace its policy index for the one-year period protecting assets more than the market during this downturn. Over the same period, ERFC lagged its assumed actuarial return target of 7.25%. The Fund is not expected to outperform the actuarial return target every year as this is a long-term return target that will fluctuate in any given year. The Fund's assets decreased from \$3.3 billion as of fiscal year-end 2021 to approximately \$3.0 billion as of fiscal year-end 2022. Over the 5-year time period ending June 2022, the Fund has averaged a 6.8% annual return versus 5.4% for the Interim Policy Benchmark. The 5-year performance ranks in the 46<sup>th</sup> percentile of public funds' peers. It is important to note that a pension fund is a long-term investment vehicle established to pay for participants' benefits. Over the 10-year time period, the Fund returned 7.3% versus 6.3% for the Interim Policy Index.

During this most recent fiscal year, the Fund's asset allocation modestly contributed to relative performance versus the Policy benchmark. Manager selection, that is the component contributed by actively managed investments, added to the allocation effect. The Long-Term Policy Index<sup>1</sup> return, which assumes that the Fund's asset allocation was invested primarily in passive index funds, was lower at -9.4%. The Fund also performed better than the Interim Policy Index<sup>2</sup> which returned -10.9% for the fiscal year to date period. The Interim Policy differs from the Long-Term Policy primarily within the private asset classes, as these are being funded gradually to ensure vintage year diversification.

The one-year performance was strong on a relative basis. The diversified holdings of the ERFC Fund have been a contributor to its long-term success. The Fund is slightly overweight to U.S. investments, coupled with an underweight to international developed investments, while still maintaining a diversified geographic and asset class investment structure. This diversification was an important factor in the outperformance during this most recent period. The Fund has

<sup>1</sup> The ERFC Policy Index is a custom index representing the weighted average return of the benchmarks for each major investment program in the Fund. The Policy Benchmark as of 6/30 consisted of: 14% Russell 1000 / 10% Russell 2000 / 5% MSCI ACWI ex USA / 5% MSCI Emerging Markets / 5% MSCI World / 2.6% MSCI AC World Index / 4% BBgBarc US TIPS TR / 2% JPM GBI-EM Global Diversified TR / 9% NCREIF - ODCE NET / 10.4% BBg Barc US Aggregate TR / 8% BBg Barc US Credit TR / 4% BBg Barc US Corporate High Yield +150 bps / 5% HFRI Fund of Funds Composite Index / 7% ThomsonOne All Regions Private Equity Index / 4% CPI - All Urban Consumers (Unadjusted) +4% / 5.0% MSCI EAFE Small Cap

<sup>2</sup> The Interim Policy Index as of 6/30 consisted of: 16% Russell 1000 / 9% Russell 2000 / 5% MSCI ACWI ex USA / 5% MSCI Emerging Markets / 5% MSCI World / 4.55% MSCI AC World / 1% CPI +4% / 4% BBgBarc US TIPS TR / 2% JPM GBI-EM Global Diversified TR / 6% NCREIF - ODCE NET / 11% BBg Barc US Aggregate TR / 8% BBg Barc US Credit / 2% BBg Barc US Corporate High Yield +150 bps / 5% HFRI Fund of Funds Composite Index / 7% ThomsonOne All Regions Private Equity Index / 2.45% BBg Barc US Aggregate TR / 2% 90 Day US Treasury Bill / 5.0% MSCI EAFE Small Cap

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## CONSULTANT REPORT ON INVESTMENT ACTIVITY

November 1, 2022

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investments across the major public and private equity, fixed income, and real estate capital markets. Small cap equity, hedge fund opportunistic, and private equity added the most value to the Fund's attribution versus the Long-Term Policy. Pension investors such as the ERFC Fund have long-term horizons over which benefits will be paid. Therefore, ERFC and its peers diversify a portion of assets to less liquid, private investments with higher expected returns where the invested capital is not needed for benefit payments over a 5 to 7-year period. These private market investments are typically not similarly affected by short-term moves in stocks, interest rates and inflation. These investments have added value to the Fund over longer periods and continue to be an important allocation.

### Equities

The ERFC Fund is diversified across U.S. and non-U.S. markets. In the first half of 2022, equity markets exhibited negative returns, with U.S. equities returning -15.5% for the quarter and -14.5% for the one-year period, reflecting rising inflation and market volatility. Calendar year to date through June 30, 2022, U.S. equities remained in negative territory. The U.S. stock market, as measured by the benchmark, Russell 3000 Index, returned -13.9% for fiscal year 2022. Negative performance in the U.S. was a result of rising interest rates, persistent inflation, and supply disruptions stemming from the pandemic and the Russia/Ukraine conflict. In the U.S., the poorest performing sectors were telecom, consumer discretionary, and IT. The energy sector performed well and led the way within the U.S. equity markets for the year. In addition, utilities, consumer staples, and healthcare were among the top performing sectors.

Similarly, Non-U.S. developed equities were largely negative in the first half of 2022. The non-U.S. equity market, as measured by the benchmark MSCI AC World ex USA Index, returned -19.4% for fiscal year 2022. Within non-U.S. developed countries, heightened inflation and tightening monetary policy led to recession fears and weighed on sentiment across equity markets. Eurozone GDP rose +0.7% quarter over quarter and the economy grew despite growing consumer pessimism with high inflation, rising interest rates and the ongoing Russia/Ukraine conflict. China's GDP grew at a rate of +0.4% in the first half of 2022 and Japan's GDP fell -0.1% in the first quarter of 2022. U.S. GDP declined -0.9% in the quarter ending June 30, 2022. The poorest performing sectors were IT and consumer discretionary. Energy, healthcare, and consumer staples were among the top performing sectors.

Emerging markets stocks were the best performing of the equity markets during the quarter, but worst performing for the fiscal year, returning -11.5% and -25.3% respectively. Emerging market equities declined with the U.S. dollar strength and continuing inflation concerns. Furthermore, energy supply concerns continued to grow with the Russia/Ukraine conflict. The U.S. dollar strength hurt emerging market returns, and reliance on Russian oil and gas continued to put pressure on emerging market economies. Valuations flattened further from the previous quarter as all major markets were negative, with the exception of China. The emerging market asset class as measured by the benchmark, MSCI Emerging Markets Index, returned -25.3% for fiscal year 2022. Stock prices in large Chinese companies recovered following the easing of lock down and COVID restrictions, resulting in consumer discretionary being the only positive sector during the second quarter of 2022. Healthcare, consumer discretionary, and telecom were the poorest performing sectors for the year, while utilities was among the top performing sectors.

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## **Domestic Equity Portfolio:**

For the fiscal year 2022 period, the domestic equity composite held \$642 million (21.4% of total Fund assets). The Total Domestic Equity Portfolio returned -14.5%, versus the Russell 3000 Index return of -13.9%, for the fiscal year. The passive managers matched their benchmarks, while active manager selection in U.S. stocks posted mixed results.

## **International Developed Equity Portfolio:**

For the fiscal year 2022 period, the international developed equity composite held \$127 million (4.2% of total Fund assets). The total international equity portfolio returned -22.8%, underperforming the MSCI ACWI ex USA return of -19.4%. Both active managers lagged the index.

## **International Small Cap Equity Portfolio:**

The international small cap equity composite held \$123 million (4.1% of total Fund assets) and was added to the portfolio in January 2022. The total international small cap equity composite returned -15.7%, beating the MSCI EAFE Small Cap Index return of -17.7% for the second quarter of 2022. Fiscal year returns were not available at this time.

## **Emerging Market Equity Portfolio:**

The emerging market equity composite held \$114 million (3.8% of total Fund assets). The total emerging market equity composite returned -32.3%, lagging the MSCI Emerging Market Index return of -25.3%.

## **Global Equity Portfolio:**

For the fiscal year 2022 period, the global equity composite held \$147 million (4.9% of total Fund assets). The total global equity composite returned -18.3%, lagging the MSCI AC World Index return of -15.8%.

## **Fixed Income**

Domestic fixed income spreads increased across all sectors during the second quarter of 2022, with high yield bonds experiencing the largest increase over the prior quarter. Shorter-maturity yields less than one-year rose, resulting in improved liquidity in the short Treasury market. One- and three-year Treasuries rose by 117 basis points and 54 basis points respectively. Longer-maturity yields increased as well, with the 5- and 7-year Treasury yields increasing 59 basis points and 64 basis points, and the 10- and 20-year Treasury yields increasing 66 basis points and 79 basis points over the prior quarter.

Global Central bank deposit rates remained negative in Japan and Europe, and the U.S. policy rate remained above those of the Eurozone and Japan. Government yields rose in the quarter across most developed markets, with the exception of Japan, and central banks in the U.S., Canada, and the UK continued to raise rates. The U.S. dollar appreciated relative to the yen, British pound, and Euro. Global returns were negative for the second quarter of 2022, with non-US investment grade sovereign bonds suffering the most.

## **Domestic Fixed Income Portfolio:**

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# CONSULTANT REPORT ON INVESTMENT ACTIVITY

November 1, 2022  
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For fiscal year 2022, the total domestic fixed income composite held \$593 million (19.8% of total Fund assets). The composite returned -10.5%, versus the Bloomberg U.S. Aggregate return of -10.3%.

### **TIPS Portfolio:**

For fiscal year 2022, the total TIPS composite held \$102 million (3.4% of total Fund assets). The composite returned -5.2%, versus the Bloomberg U.S. TIPS index return of -5.1%.

### **Emerging Market Debt Portfolio:**

For fiscal year 2022, the total emerging market debt composite held \$77 million (2.6% of total Fund assets). The composite returned -18.2%, versus the JP Morgan GBI-EM index return of -19.3%.

### **MACS Portfolio: (Better Beta/Global Asset Allocation)**

For fiscal year 2022, the MACS composite held \$192 million (6.4% of total Fund assets). The composite returned -16.3%, versus the custom Index return of -13.7%.

### **Real Estate:**

The real estate market was among the very few positive performing asset classes for fiscal year 2022. In the U.S., retail sector appreciation was 0.43%, apartment sector appreciation was 2.94%, office sector appreciation was -0.50%, and industrial sector appreciation was 5.08% during the second quarter of 2022. For the same time period, retail sector income was 1.25%, apartment sector income was 0.92%, office sector income was 1.08% and industrial sector income was 0.78%. In the U.S., the returns by region for the second quarter of 2022 was as follows: East (2.38%), Midwest (1.93%), South (3.61%) and West (3.87%).

### **Real Estate Portfolio:**

For fiscal year 2022, the total real estate composite held \$232 million (7.7% of total Fund assets). The composite returned 28.1%, versus the ERFC's blended real estate (custom) index return of 28.3%. The Real Estate sector had very strong double digit returns for the 2022 fiscal period.

### **Hedge Funds:**

The HFRI Fund Weighted Composite Index dropped -4.85% during the second quarter of 2022. Macro funds (+1.80%) continued to outperform the rest of the hedge fund landscape, while emerging markets (-6.68%) and equity hedge (-7.98%) struggled during the quarter and trailed broader hedge fund peers. Equity Hedge performance was preserved by market neutral funds, while funds that focused on technology posted the weakest results. Macro fund generated the highest returns (7.98%) for the fiscal year, as aggressive actions from the Federal Reserve relative to other central banks led to continued U.S. dollar strength.

### **Hedge Fund Portfolio:**

For fiscal year 2022, the total hedge fund opportunistic composite held \$259 million (8.6% of total Fund assets).

### **Infrastructure:**

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## CONSULTANT REPORT ON INVESTMENT ACTIVITY

November 1, 2022

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The global infrastructure composite returned +3.8% in Q1 2022, followed by U.S. private infrastructure funds (+3.5%), and European funds (3.1%). Renewables accounted for nearly 50% of the deal volume in the second quarter of 2022, continuing to generate a majority of private infrastructure transactions. Public infrastructure, as measured by the FTSE Global Core Infrastructure 50/50 Index, returned 3.9% in Q1 2022, and 15.3% over the trailing one-year time period.

### Infrastructure Portfolio:

For fiscal year 2022, the total infrastructure composite held \$30 million (1.0% of the total Fund).

In fiscal year 2022, Segal Marco Advisors helped the Fund implement several changes within the asset class structures and investment managers within international equities. Segal also reviewed the Fund's asset allocation mix and presented a few new mixes for Trustee consideration. William Blair International Leaders Concentrated and Mellon International Stock Index Fund were added to the plan, replacing William Blair International Leaders and Acadian. Barings International Small Cap Equity Fund and Global Alpha International Small Cap Fund were also added to the plan within the international small cap equity composite. A new asset allocation mix was chosen by the Trustees in June of 2022 and the process of changing the allocation has begun with a new Investment Policy Statement and a new natural resources asset class.

Meketa implemented several changes within the asset class structure and investment managers during 2022 within the real estate, infrastructure, private equity, and private debt portfolios. Meketa has also started to prepare a list of possible natural resources managers for the coming year.

Segal continued its education sessions with Trustees in 2022. We provided education on asset allocation, risk, correlations, ESG, corporate governance, proxy voting, natural resources, and securities lending and rebalancing.

Market conditions and Fund performance will continue to be monitored closely to accomplish the goal of providing the benefits as promised to participants.

Sincerely,



Rosemary Guillette  
Senior Vice President & Senior Consultant

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## STRATEGIC REVIEW AND INVESTMENT POLICY

### INTRODUCTION

The members of the ERFC Board of Trustees have jurisdiction over and ultimate fiduciary responsibility for the investment of the System's assets. In carrying out their responsibilities, they must adhere to applicable laws, regulations, and rulings with respect to the duties of investment fiduciaries. Accordingly, they are required to "discharge their duties in the interest of plan participants" and "act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise with similar aims." The Board of Trustees has established a Statement of Investment Policy that identifies a set of investment objectives, guidelines, and performance standards for the assets of the fund. The objectives are formulated in response to the following:

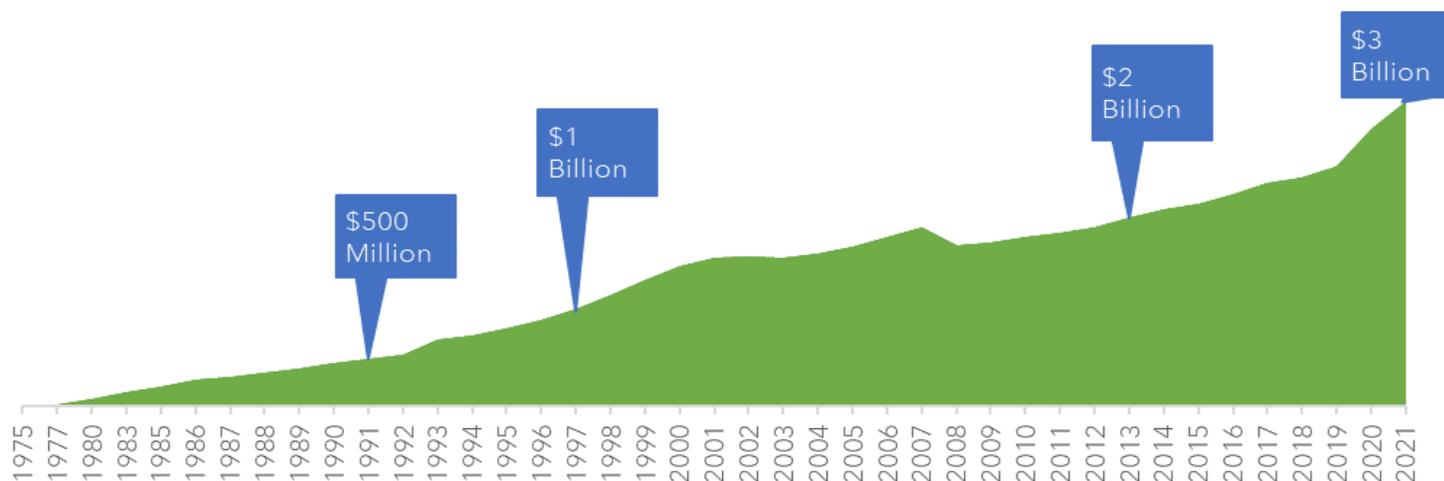
- the anticipated financial needs of the ERFC
- consideration of risk tolerance; and
- the need to document and communicate objectives, guidelines and standards to the investment managers.

### INVESTMENT OBJECTIVES

The investment objective of the ERFC is to ensure, over the long-term life of the fund, an adequate level of assets to fund the benefits for ERFC members and their beneficiaries at the time they are payable. The Trustees seek to achieve a high level of total investment return consistent with a prudent level of portfolio risk. The fund's actuary uses an investment return assumption of 7.25 percent, compounded annually, of which 2.75 percent constitutes an assumed rate of inflation and 4.5 percent reflects an assumed real rate of return on investments. Effective December 31, 2021, the Board of Trustees elected to change the investment return rate to 7.0 percent of which 2.75 percent constitutes an assumed rate of inflation and 4.25 percent reflects an assumed real rate of return on investments. The fund's objective is to meet or exceed the assumed real rate of return over time, while preserving the fund's principal.

#### ERFC TOTAL FUND GROWTH — VALUATION ASSETS SINCE INCEPTION

(As reflected in the December 31, 2021 actuarial valuation)



## INVESTMENT MANAGERS

### INVESTMENT MANAGERS

As of June 30, 2022

SECTOR	INVESTMENT MANAGER	INVESTMENT TYPE
Large Capitalization Equity	Mellon Capital Management Corp.	Core Index (Russell 1000)
	Mellon Capital Management Corp.	Growth
	Mellon Capital Management Corp.	Value
Small Capitalization Equity	Cramer Rosenthal McGlynn, LLC	Value
	Schroder Investment Management NA, Ltd.	Core
	Westfield Capital Management	Growth
International Equity	Acadian Asset Management	Core
	Causeway Capital	Value
	Mellon Capital Management Corp.	Core
	William Blair & Company	Growth
International Small Capitalization Equity	Barings Investment	Core
	Global Alpha	Core
Emerging Market Equity	William Blair & Company	Emerging Market
Global Equity	Lazard Asset Management	All Cap
U.S. Fixed Income	DoubleLine Capital, L.P.	Core Plus
	Fidelity Institutional Asset Management	Core Plus
	Loomis Sayles & Company	Core Plus
	Mellon Capital Management Corp.	TIPS
Emerging Market Debt	Mondrian Investments	Emerging Market
Multi-Asset Class Solutions (MACS)	Bridgewater Associates, Inc.	Better Beta
	Wellington Management Co.	Global Asset Allocation
Real Estate	Atlas Capital	Value-Added
	Berkshire	Value-Added
	Carlyle	Core-Plus
	Centerbridge Partners	Opportunistic
	DivcoWest	Value-Added
	Investors Diversified Realty	Value-Added
	IPI Partners	Value-Added
	JP Morgan Asset Management	Core-Plus
	Landmark Partners	Secondary
	PGIM Real Estate	Core
	Torchlight investors	Opportunistic

## INVESTMENT MANAGERS

### INVESTMENT MANAGERS

As of June 30, 2022

SECTOR	INVESTMENT MANAGER	INVESTMENT TYPE
Hedge Funds-Oppportunistic	Grosvenor Institutional Partners	Multi-Asset Class
Infrastructure	Actis	Opportunistic
	Climate Adaptive	Value-Added
	Grain Communications	Opportunistic
	ISQ Global	Value-Added
	JPMorgan	Core
	KKR	Core
	Peppertree Capital	Value-Added
	Stonepeak	Value-Added
	Tiger	Opportunistic
Private Equity	Accomplice	Venture Capital
	Charlesbank	Buyout
	Flagship	Venture Capital
	Foundation Capital	Venture Capital
	Glouston	Secondary
	HarbourVest Partners	Fund of Funds
	JMI	Growth Equity
	K5	Buyout
	Lakestar	Venture Capital
	Lexington Capital Partners	Secondary
	Lightspeed	Venture Capital
	Linden Capital Partners	Buyout
	Oakley	Buyout
	Private Advisors	Fund of Funds
	Searchlight Capital	Special Situations
	Stellex Capital Partners	Special Situations
	Sterling Group Partners	Buyout
	STG	Buyout
	TA	Buyout
	Vitruvian Investment Partnership	Buyout
Private Debt	Audax	Mezzanine
	Davidson Kempner	Distressed
	FP Credit Partners	Special Situations
	HarbourVest Partners	Fund of Funds
	Newstone Capital	Direct Lending
	OHA	Distressed
	Silver Point	Opportunistic
	Strategic Value	Distressed

## ASSETS UNDER MANAGEMENT

### ASSETS UNDER MANAGEMENT

As of June 30, 2022

SECTOR	INVESTMENT MANAGER	AMOUNT
Large Capitalization Equity		
	Mellon Capital Management Corp.	\$ 396,636,630
Small Capitalization Equity		
	Cramer Rosenthal McGlynn, LLC	84,594,632
	Schroder Investment Management NA, Ltd.	87,396,207
	Westfield Capital Management	75,242,133
International Equity		
	Acadian Asset Management	3,030,905
	Causeway Capital	302,968
	Mellon Capital Management Corp.	68,468,864
	William Blair & Company	55,137,629
International Small Capitalization Equity		
	Barings Investment	57,630,512
	Global Alpha	64,999,365
Emerging Market Equity		
	William Blair & Company	113,883,088
Global Equity		
	Lazard Asset Management	147,365,854
U.S. Fixed Income		
	DoubleLine Capital, L.P.	166,511,969
	Fidelity Institutional Asset Management	184,922,695
	Loomis Sayles & Company	240,769,032
	Mellon Capital Management Corp.	102,202,390
Emerging Market Debt		
	Mondrian Investments	77,382,498
Multi-Asset Class Solutions (MACS)		
	Bridgewater Associates, Inc.	89,643,013
	Wellington Management Co.	102,700,452
Real Estate		
	Atlas Capital*	(220,624)
	Berkshire	6,847,155
	Carlyle	15,140,248
	Centerbridge Partners	40,981
	DivcoWest	37,403,159
	Investors Diversified Realty	4,582,413
	IPI Partners	5,698,379
	JP Morgan Asset Management	71,027,211
	Landmark Partners	19,023,551
	PGIM Real Estate	59,290,602
	Torchlight investors	4,022,544
Hedge Funds-Oppportunistic		
	Grosvenor Institutional Partners	263,871,419

## ASSETS UNDER MANAGEMENT

### ASSETS UNDER MANAGEMENT

As of June 30, 2022

SECTOR	INVESTMENT MANAGER	AMOUNT
Infrastructure		
	Actis*	(50,000)
	Climate Adaptive	761,936
	Grain Communications	1,189,458
	ISQ Global	192,452
	JPMorgan	15,107,177
	KKR	9,995,221
	Peppertree Capital	406,975
	Stonepeak	1,165,108
	Tiger	751,411
Private Equity		
	Accomplice	13,556,248
	Charlesbank	1,769,383
	Flagship	1,170,161
	Foundation Capital	2,585,857
	Glouston	3,938,108
	HarbourVest Partners	135,819,500
	JMI	3,425,146
	K5	2,916,252
	Lakestar	24,815,148
	Lexington Capital Partners	30,394,216
	Lightspeed	31,700,182
	Linden Capital Partners*	(100,102)
	Oakley	97,448
	Private Advisors	31,875,899
	Searchlight Capital	12,887,190
	Stellex Capital Partners	1,456,318
	Sterling Group Partners	2,872,519
	STG	1,984,831
	TA	1,679,028
	Vitruvian Investment Partnership	4,919,200
Private Debt		
	Audax	372,460
	Davidson Kempner	10,294,227
	FP Credit Partners	14,386,098
	HarbourVest Partners	3,001,088
	Newstone Capital	765,916
	OHA	7,985,762
	Silver Point	8,563,140
	Strategic Value	4,981,107
	Cash (Temporary Cash)	2,729,938
	<b>Total</b>	<b>\$ 2,997,909,880</b>

\* Certain Private Market investments require payment of fees up front. These investments will reflect a negative capital balance until the fund's first investment.

## ASSET STRUCTURE

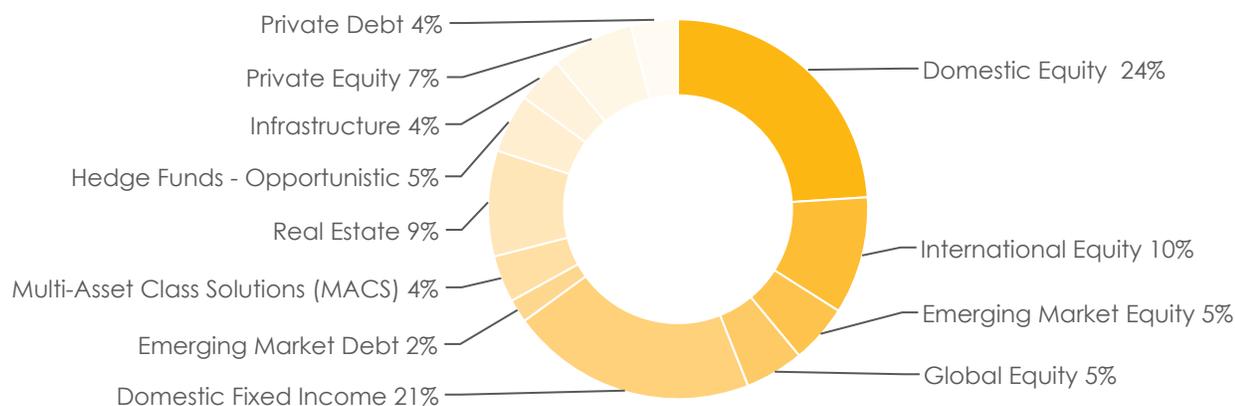
### INTERIM STRATEGIC TARGET ALLOCATION AS OF JUNE 30, 2022

The asset structure shown below represents the Trustees' assessment of their optimal asset allocation as of June 30, 2022. This interim strategic allocation provides a reasonable expectation that the fund's investment objective can be achieved based on historic relationships of asset class performance. The charts below provide a comparison between the target asset mix, consistent with the achievement of the long-term objective of the fund, and the actual asset allocation as of June 30, 2022.

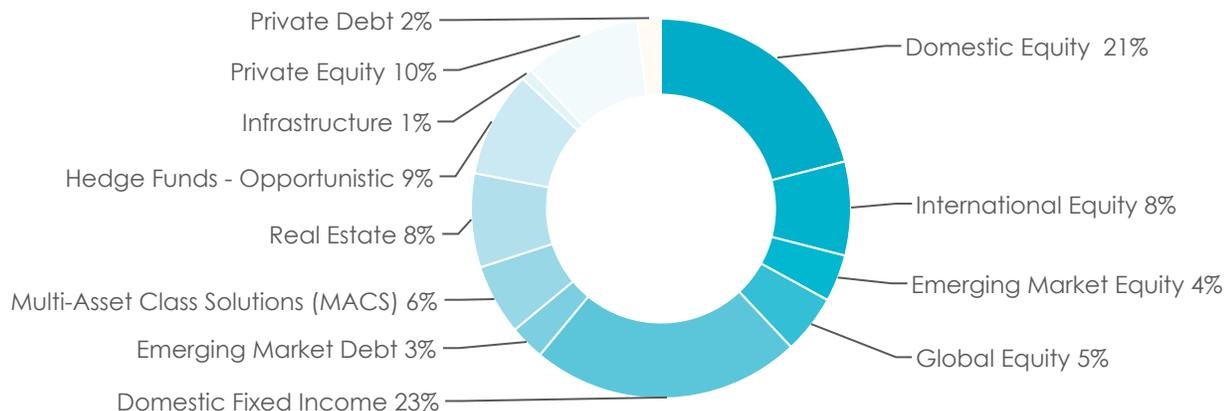
### ACTUAL ASSET ALLOCATION AS OF JUNE 30, 2022

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

#### STRATEGIC TARGET ALLOCATION

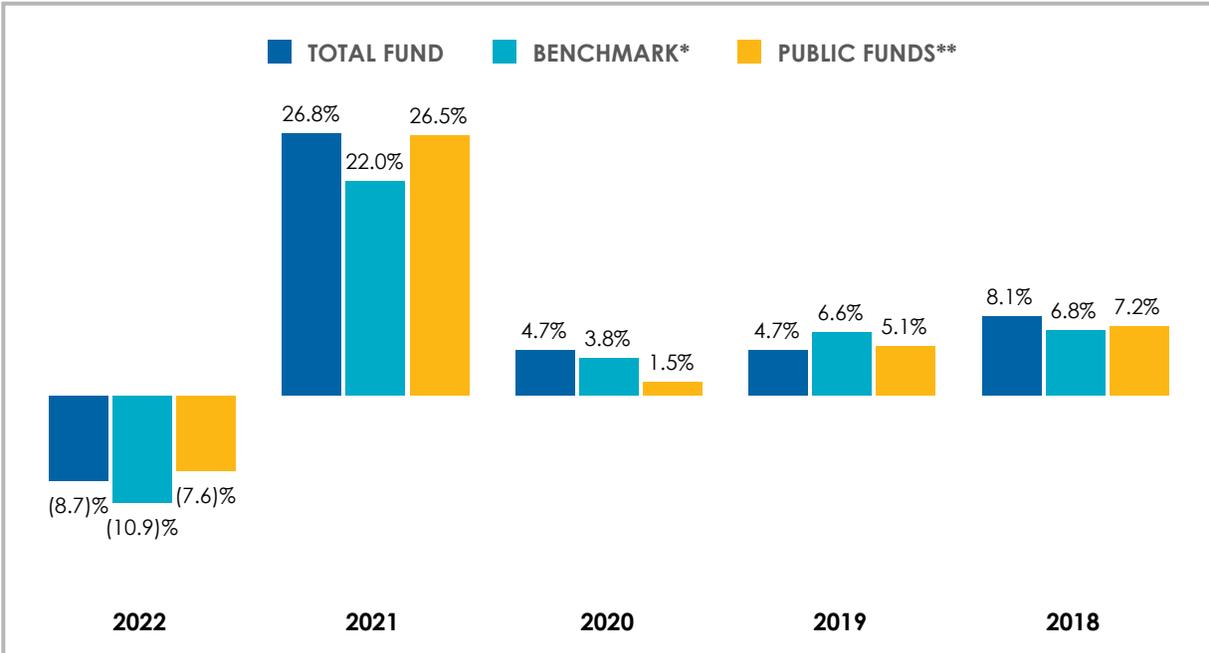


#### ACTUAL ASSET ALLOCATION

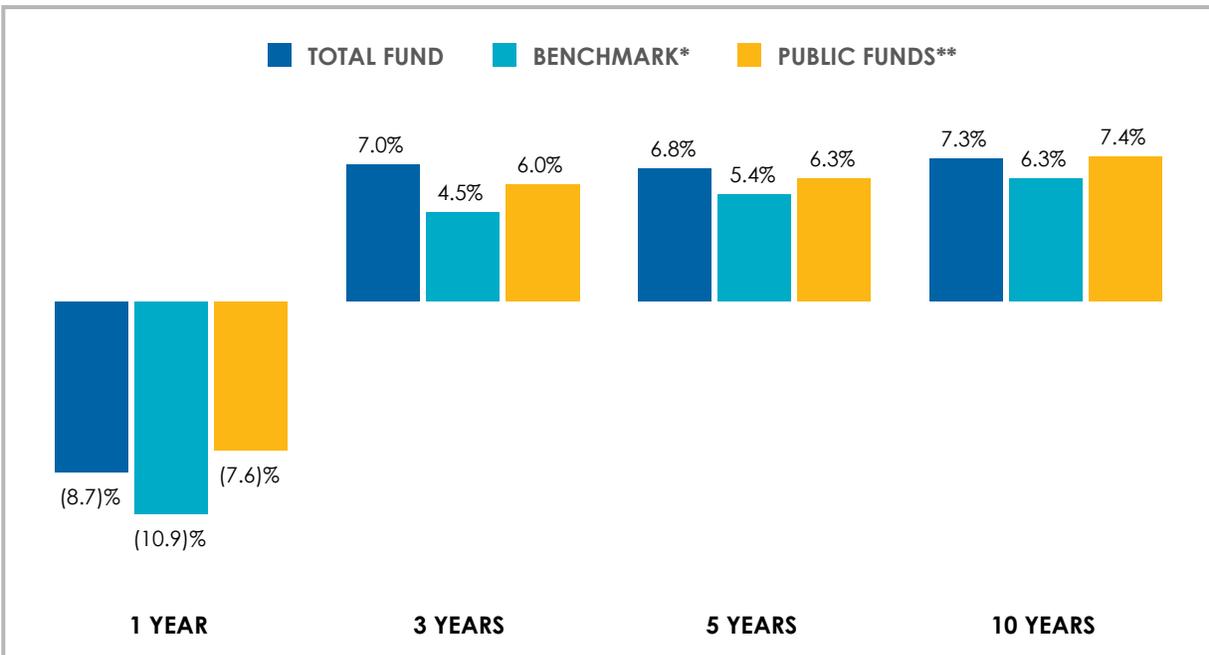


## INVESTMENT RESULTS

**TOTAL FUND RETURNS**  
FISCAL YEARS ENDING JUNE 30  
(NET OF FEES)



**TOTAL FUND RETURNS**  
TRAILING YEARS ENDING JUNE 30, 2022  
(NET OF FEES)



\* 16% Russell 1000 Index, 7% Russell 2000 Index, 9% MSC AC World ex USA (Net), 5% MSC EM (net), 5% MSC World (Net), 14% BB U.S. Aggregate, 8% BB U.S. Credit Index, 3% JPM GB -EM Global Diversified TR, 4% BB U.S. TIPS, 5.8% MSC AC World Index (Net), 3.2% BB U.S. Aggregate, 4% HFRI Fund of Funds Composite Index, 6% NCREIF - ODCE NET, 1% CPI + 4%, 1% BB U.S. Corp High Yield + 150 bps, 6% ThomsonOne All Regions PE, 2% 90 Day U.S. Treasury Bill

\*\* Investment Metrics Public Plan Universe > \$1B

## INVESTMENT RESULTS

### DOMESTIC EQUITY (NET OF FEES)

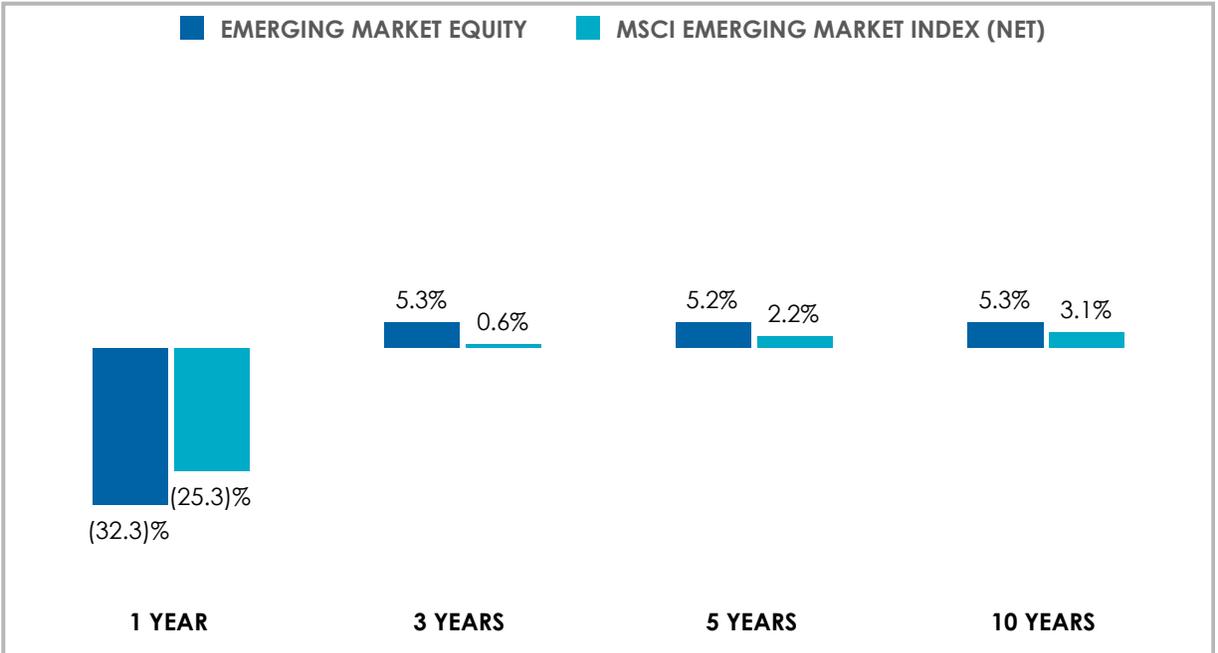


### INTERNATIONAL EQUITY (NET OF FEES)



# INVESTMENT RESULTS

## EMERGING MARKET EQUITY (NET OF FEES)

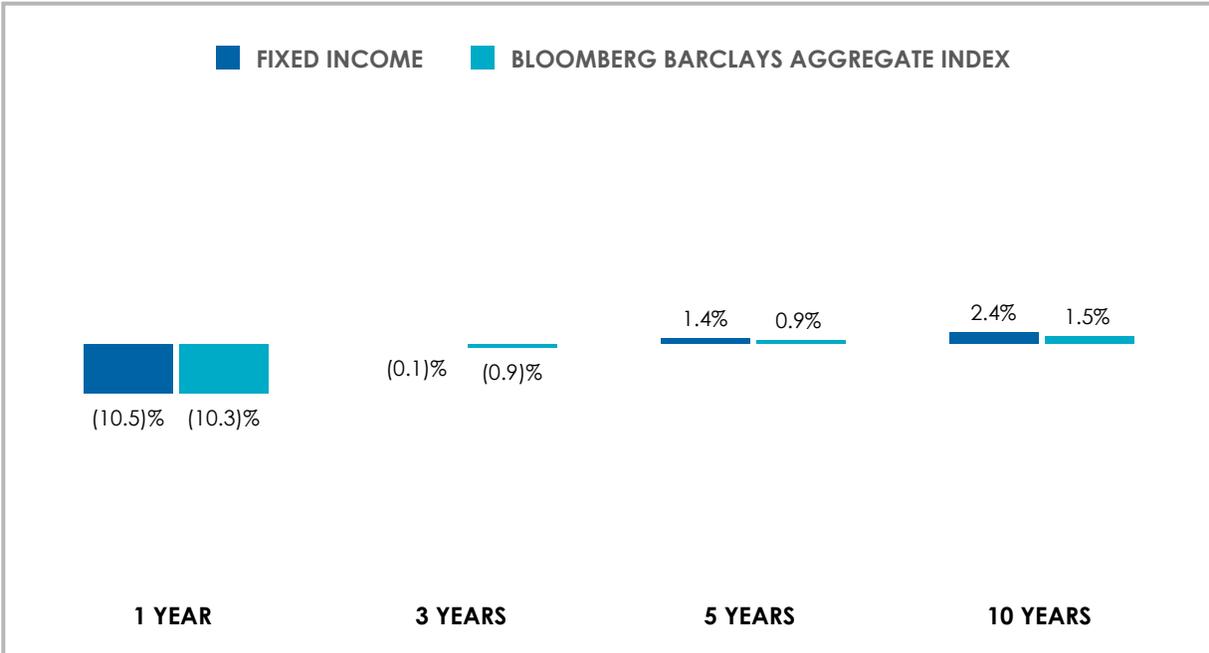


## GLOBAL EQUITY (NET OF FEES)

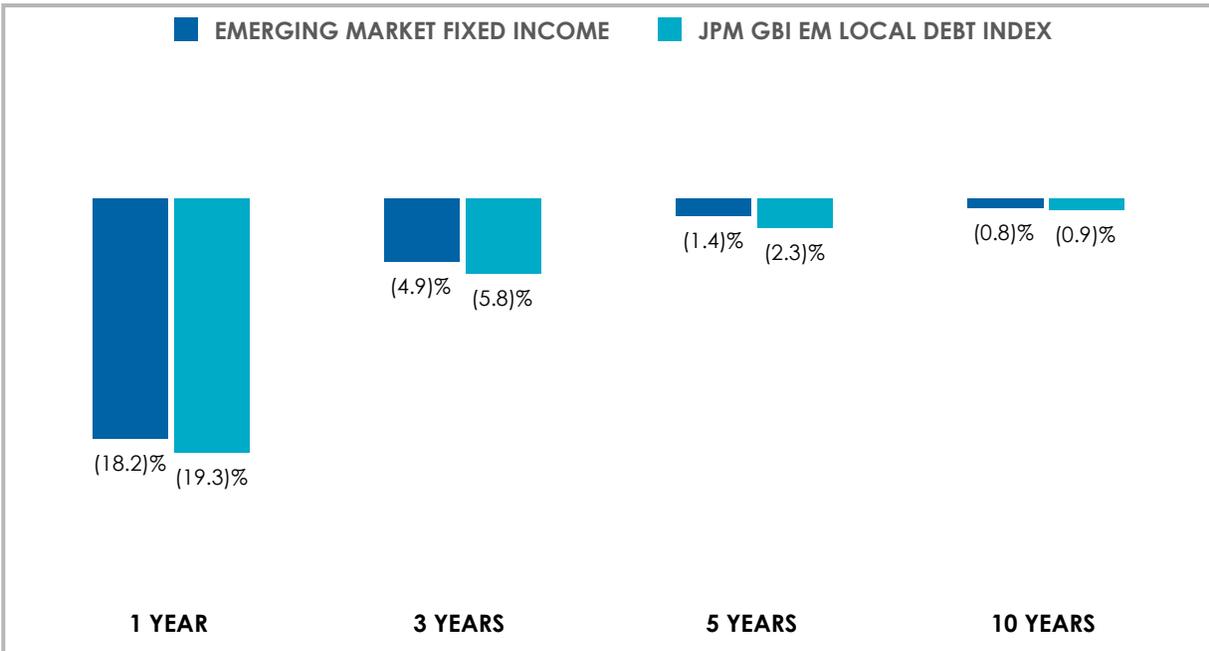


## INVESTMENT RESULTS

### DOMESTIC FIXED INCOME FOR THE PERIODS ENDING JUNE 30, 2022 (NET OF FEES)



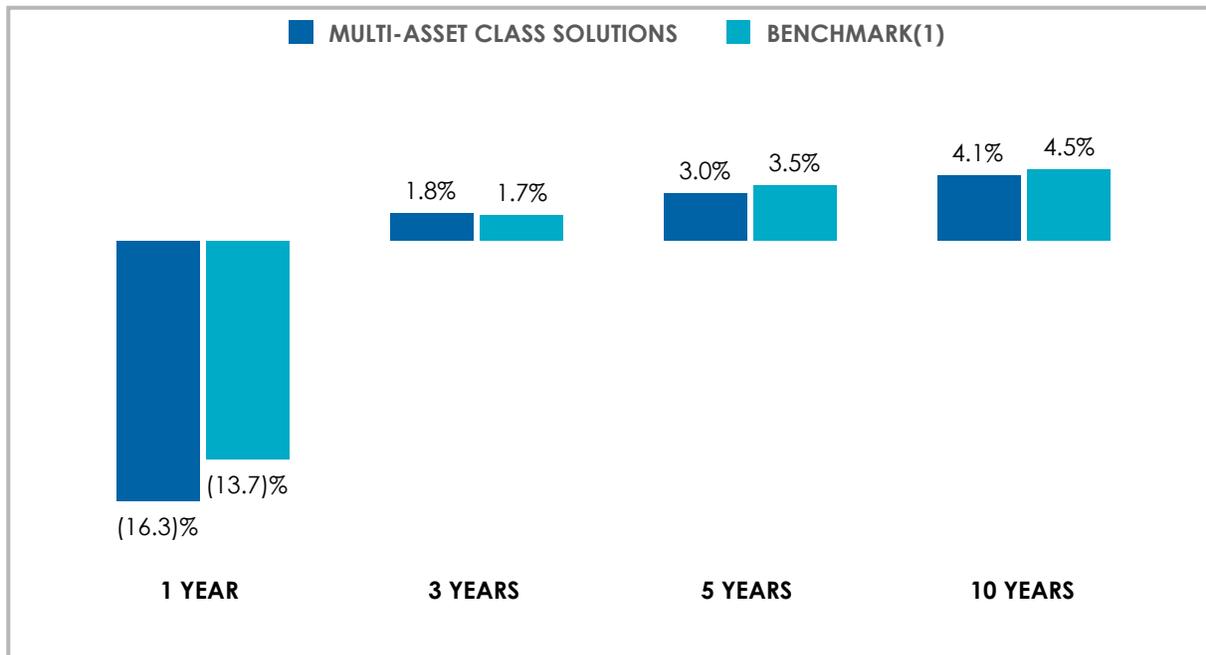
### EMERGING MARKET FIXED INCOME (NET OF FEES)



## INVESTMENT RESULTS

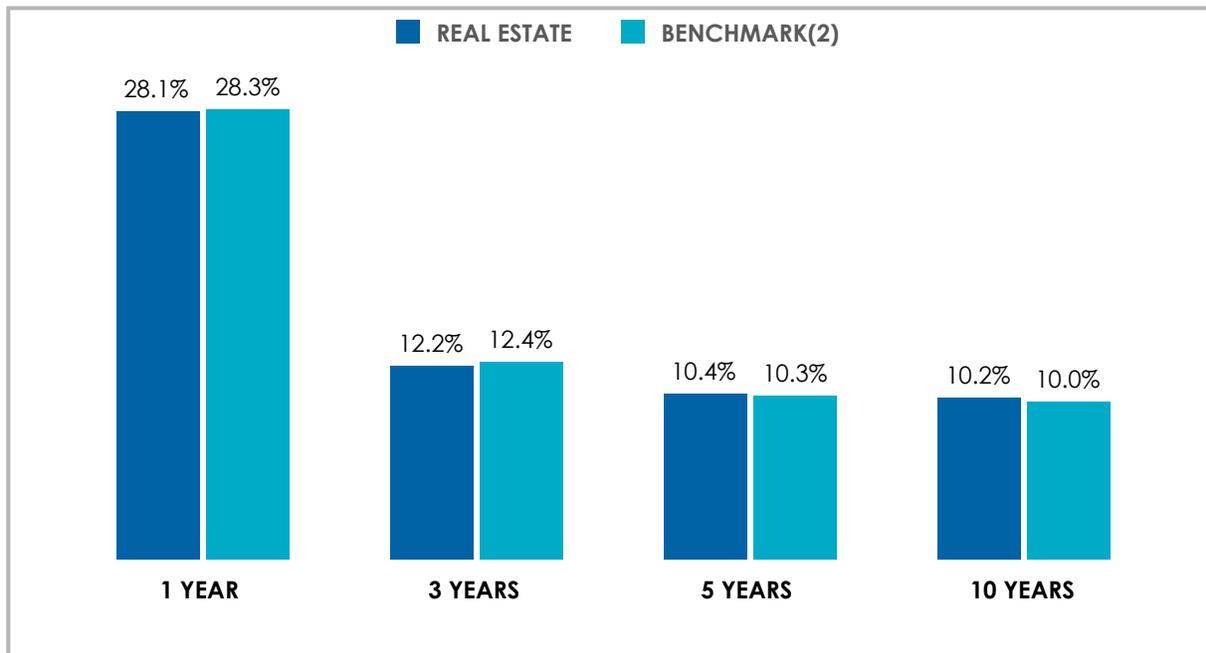
### MULTI-ASSET CLASS SOLUTIONS

(NET OF FEES)



### REAL ESTATE

(NET OF FEES)



Note: All investment performance figures were calculated using time-weighted rate of return based on market values.

Custom benchmark members have changed over time.

(1) 65% MSC (NET) / 35% BB Aggregate

(2) 100% NCREIF ODCE

## SCHEDULES OF TEN LARGEST EQUITY & FIXED INCOME HOLDINGS

(As of June 30, 2022)

### TEN LARGEST EQUITY HOLDINGS\*

NO. SHARES	DESCRIPTION	COST	FAIR VALUE	% OF TOTAL PORTFOLIO
12,630	VALMONT INDUSTRIES INC	\$ 1,750,158	\$ 2,837,077	0.09 %
136,496	HOSTESS BRANDS INC	2,432,908	2,895,080	0.10 %
79,444	FIRST INTERSTATE BANCSYSTEM IN	2,972,868	3,027,611	0.10 %
152,821	CHAMPIONX CORP	1,990,819	3,033,497	0.10 %
4,997	LVMH MOET HENNESSY LOUIS VUITT	2,990,061	3,038,867	0.10 %
50,628	KIRBY CORP	2,573,280	3,080,208	0.10 %
35,925	CLEAN HARBORS INC	2,772,669	3,149,545	0.11 %
64,140	SPX CORP	3,204,552	3,389,158	0.11 %
54,185	RELIANCE INDUSTRIES LTD	3,393,666	3,561,878	0.12 %
7,944	ASML HOLDING NV	4,467,441	3,785,859	0.13 %
<b>TOTAL</b>		<b>\$ 28,548,422</b>	<b>\$ 31,798,780</b>	<b>1.06 %</b>

### TEN LARGEST FIXED INCOME

PAR VALUE	SECURITY	COUPON	MATURITY	COST	FAIR VALUE	% OF TOTAL PORTFOLIO
4,670,000	U S TREASURY NOTE	1.250 %	9/30/2028	\$ 4,641,365	\$ 4,182,751	0.14 %
6,353,000	U S TREASURY BOND	1.750 %	8/15/2041	6,125,260	4,832,499	0.16 %
5,315,000	U S TREASURY NOTE	0.125 %	4/30/2023	5,312,301	5,196,532	0.17 %
5,300,000	U S TREASURY NOTE	2.750 %	4/30/2027	5,274,535	5,228,367	0.17 %
7,864,000	U S TREASURY NOTE	1.375 %	11/15/2031	7,732,161	6,820,791	0.23 %
10,720,000	U S TREASURY BOND	1.250 %	5/15/2050	8,044,544	6,825,206	0.23 %
7,945,000	U S TREASURY NOTE	0.125 %	2/28/2023	7,939,197	7,813,316	0.26 %
10,610,000	U S TREASURY NOTE	0.125 %	8/31/2023	10,577,258	10,269,193	0.34 %
13,807,000	U S TREASURY BOND	2.000 %	8/15/2051	14,027,699	10,670,761	0.36 %
16,435,000	U S TREASURY NOTE	2.875 %	5/15/2032	15,723,380	16,310,454	0.54 %
<b>TOTAL</b>				<b>\$ 85,397,700</b>	<b>\$ 78,149,870</b>	<b>2.60 %</b>

\* A detailed list of the portfolio's equity and fixed income holdings are available upon request.

## SCHEDULE OF BROKERAGE COMMISSIONS

(Year Ended June 30, 2022)

BROKER NAME		BASE VOLUME	TOTAL SHARES	BASE COMMISSION	COMMISSION PERCENTAGE
J P MORGAN SECS LTD, LONDON	\$	82,222,168	2,601,092	\$ 21,410	0.80 %
JEFFERIES & CO INC, NEW YORK		51,506,034	1,916,002	29,198	1.50
MACQUARIE CAPITAL (USA) INC., NEW YORK		49,610,592	885,739	10,712	1.20
MERRILL LYNCH INTL LONDON EQUITIES		37,699,514	1,592,142	9,804	0.60
MORGAN STANLEY AND CO., LLC, NEW YORK		36,833,927	2,953,997	11,790	0.40
PERSHING SECURITIES LTD, LONDON		29,405,907	1,699,079	8,856	0.50
NATIONAL FINL SVCS CORP, NEW YORK		28,954,052	1,164,634	25,585	2.20
UBS SECURITIES LLC, STAMFORD		27,945,301	930,688	20,732	2.20
LIQUIDNET INC, NEW YORK		25,498,300	680,669	20,393	3.00
J.P MORGAN SECURITIES INC, NEW YORK		22,320,285	338,008	9,083	2.70
CITIGROUP GLOBAL MARKETS EURO, FRANKFURT		21,495,822	466,576	5,933	1.30
CREDIT SUISSE, NEW YORK (CSUS)		20,061,367	498,970	12,688	2.50
INSTINET CLEARING SER INC, NEW YORK		19,869,396	730,463	18,967	2.60
CITIGROUP GBL MKTS INC, NEW YORK		19,829,600	8,655,377	5,329	0.10
DAIWA SEC SMBC SINGAPORE LTD, SINGAPORE		18,847,534	1,031,115	5,654	0.50
INSTINET EUROPE LIMITED, LONDON		18,485,667	754,702	4,724	0.60
MACQUARIES SECURITIES AUSTRALIA, SYDNEY		15,402,866	21,769,083	4,630	—
MERRILL LYNCH PIERCE FENNER SMITH INC NY		13,666,856	246,591	5,177	2.10
UBS EQUITIES, LONDON		11,881,691	918,119	5,053	0.60
GOLDMAN SACHS & CO, NY		11,163,212	918,679	6,854	0.70
BERNSTEIN SANFORD C & CO, NEW YORK		10,993,793	270,585	5,131	1.90
CITIGROUP GLOBAL MARKETS LTD, LONDON		10,134,502	972,890	3,745	0.40
VIRTU AMERICAS LLC, NEW YORK		8,878,653	316,608	7,611	2.40
J.P. MORGAN SECURITIES, HONG KONG		8,671,467	5,666,627	2,637	—
MACQUARIE BANK LIMITED, SYDNEY		8,504,748	1,212,380	2,551	0.20
PERSHING SECURITIES LIMITED, LIVERPOOL		7,602,005	174,184	2,280	1.30
HSBC SECS INC, NEW YORK		7,500,294	6,256,585	2,321	—
ABEL NOSER, NEW YORK		7,277,278	211,799	8,472	4.00
CITIGROUP GLOBAL MARKETS, INC., NEW YORK		7,246,477	284,389	1,388	0.50
LUMINEX TRADING AND ANALYTICS, BOSTON		7,154,171	179,454	4,845	2.70
J P MORGAN SEC LTD/STOCK LENDING, LONDON		6,345,058	48,830	1,509	3.10
MACQUARIE BANK LTD, SYDNEY		6,076,874	653,569	1,824	0.30
HSBC BANK PLC (MIDLAND BK)(JAC), LONDON		5,662,085	2,489,309	2,726	0.10
KEEFE BRUYETTE + WOODS INC, NEW YORK		5,564,794	177,869	7,115	4.00
CITIGROUP GBL MKTS INC, TAIPEI		5,515,288	3,344,232	1,660	0.10
JPMORGAN SECURITIES INC, NEW YORK		5,194,073	408,587	1,180	0.30
SUNTRUST CAPITAL MARKETS INC, NEW YORK		5,077,237	207,478	8,299	4.00
J.P. MORGAN SECURITIES LLC, NEW YORK		4,912,034	167,257	613	0.40
CLSA SINGAPORE PTE LTD (CHV), SINGAPORE		4,759,265	3,122,838	1,431	—
CREDIT LYONNAIS SECS (ASIA), HONG KONG		4,731,710	3,902,504	2,013	0.10
BARCLAYS CAPITAL LE, NEW YORK		4,693,985	154,005	6,160	4.00
STIFEL NICOLAUS		4,647,384	105,583	4,223	4.00
KEB SALOMON SMITH BARNEY SECS, SEOUL		4,586,714	96,617	1,380	1.40
PERSHING LLC, JERSEY CITY		4,537,712	231,138	3,824	1.70
J P MORGAN SEC, SYDNEY		4,458,149	212,746	1,062	0.50
OTHER BROKERS		116,155,777	20,824,467	90,631	—
<b>TOTAL</b>	<b>\$</b>	<b>839,581,618</b>	<b>102,444,255</b>	<b>\$ 419,203</b>	<b>—</b>

## INVESTMENT SUMMARY

	As of June 30, 2022		As of June 30, 2021	
	FAIR VALUE	% FAIR VALUE	FAIR VALUE	% FAIR VALUE
<b>FIXED INCOME</b>				
U.S. Government obligations	\$ 140,353,981	4.7 %	\$ 134,299,276	4.1 %
Asset-backed securities	147,774,908	4.9 %	131,235,280	4.0 %
Domestic corporate bonds	274,702,007	9.1 %	296,155,653	9.0 %
Convertible bonds	5,650,314	0.2 %	7,885,605	0.2 %
International bonds	2,403,350	0.1 %	48,744,879	1.5 %
Municipal bonds	538,258	— %	629,074	— %
Index / Commingled fund	181,214,664	6.0 %	212,099,908	6.5 %
<b>Total fixed income</b>	<b>752,637,482</b>	<b>25.0 %</b>	<b>831,049,675</b>	<b>25.3 %</b>
<b>DOMESTIC EQUITY</b>				
Stocks	224,531,173	7.5 %	272,070,624	8.3 %
Index / Commingled fund	452,347,683	15.0 %	520,490,767	15.9 %
<b>Total domestic equity</b>	<b>676,878,855</b>	<b>22.5 %</b>	<b>792,561,391</b>	<b>24.2 %</b>
<b>INTERNATIONAL EQUITY</b>				
Stocks	64,366,821	2.1 %	295,344,958	9.0 %
Preferred stocks	—	— %	2,847,981	0.1 %
Index / Commingled fund	390,598,945	13.0 %	389,329,018	11.9 %
<b>Total international equity</b>	<b>454,965,766</b>	<b>15.1 %</b>	<b>687,521,957</b>	<b>21.0 %</b>
<b>REAL ESTATE</b>				
Commingled	174,568,128	5.8 %	138,530,606	4.2 %
Private	48,287,492	1.6 %	17,601,518	0.5 %
<b>Total real estate</b>	<b>222,855,620</b>	<b>7.4 %</b>	<b>156,132,124</b>	<b>4.7 %</b>
<b>ALTERNATIVE INVESTMENTS</b>				
Multi Asset Class Solutions (MACS)	192,343,465	6.4 %	306,184,789	9.3 %
Hedge Funds - Opportunistic	263,871,419	8.8 %	187,556,946	5.7 %
Private Markets	389,632,067	13.0 %	238,898,086	7.3 %
<b>Total alternative investments</b>	<b>845,846,951</b>	<b>28.2 %</b>	<b>732,639,821</b>	<b>22.3 %</b>
<b>Subtotal investments at fair value</b>	<b>2,953,184,675</b>	<b>98.2 %</b>	<b>3,199,904,968</b>	<b>97.5 %</b>
<b>SHORT-TERM INVESTMENTS</b>				
Money Market	55,357,186	1.8 %	82,434,178	2.5 %
<b>Total short-term investments</b>	<b>55,357,186</b>	<b>1.8 %</b>	<b>82,434,178</b>	<b>2.5 %</b>
<b>Total</b>	<b>\$ 3,008,541,861</b>	<b>100.0 %</b>	<b>\$ 3,282,339,146</b>	<b>100.0 %</b>

Note: This summary is comprised of investments at fair value and short-term investments.

## SCHEDULE OF INVESTMENT MANAGEMENT FEES

(Year Ended June 30, 2022)

<b>INVESTMENT CATEGORY</b>	<b>ASSETS UNDER MANAGEMENT</b>	<b>EXPENSE</b>
Fixed income managers	\$ 771,788,584	\$ 2,197,057
Equity managers	714,078,687	1,938,211
International managers	170,311,400	2,381,496
Multi Asset Class Solutions (MACS)	102,700,452	801,848
<b>Total</b>	<b>\$ 1,758,879,123</b>	<b>\$ 7,318,612</b>

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# ACTUARIAL

UNAUDITED

- 
- Actuary's Certification Letter
  - Summary of Actuarial Assumptions and Methods
  - Employer Schedule of Funding Progress
  - Summary of Member Data
  - Short-Term Solvency Test
  - Analysis of Financial Experience
  - Summary of Benefit Provisions
  - Contribution Rates
  - Summary of Plan Changes

## ACTUARY'S CERTIFICATION LETTERS



October 12, 2022

Board of Trustees  
Educational Employees' Supplementary Retirement System of Fairfax County (ERFC)  
8001 Forbes Place, Suite 300  
Springfield, VA 22151

Dear Board Members,

To meet the financial obligations attributable to current and future retirees and beneficiaries, the Educational Employees' Supplementary Retirement System of Fairfax County ("ERFC") is required to determine and receive contributions which meet the following objectives:

- Contributions would remain approximately level from generation to generation when expressed as a percent of active member payroll; and
- When combined with the current fair value of assets and future investment return will be sufficient to meet the current and future financial obligations of ERFC.

During the annual actuarial funding valuation process, the actuary develops the contribution rates that are necessary to fund the plan's current cost, that is the costs associated with the year of service about to be performed, and to also fund the unfunded actuarial accrued liabilities as a level percent of active member payroll over a specified, and finite, period. The latest funding valuation was completed based on population data, asset data and plan provisions as of December 31, 2021. The plan's administrative staff provides Aon with the data for the valuation. This data is reviewed for internal and year to year consistency before use, and the plan's external auditor audits the actuarial data annually.

All calculations were performed according to generally accepted actuarial principles and practices and were also in accordance with all applicable Actuarial Standards of Practice issued by the Actuarial Standards Board.

As part of its regular financial reporting requirements, ERFC is required to disclose certain financial information under Governmental Accounting Standards Board ("GASB") Statement Numbers 67 and 68. To assist with these requirements, Aon prepared a separate accounting valuation report based on a measurement date of June 30, 2022 for GASB Statement Numbers 67 and 68.

The accounting report was based on information previously reported in the funding valuation report that was prepared as of December 31, 2021 and the accounting valuation report that was prepared as of June 30, 2021. In addition to these reports, the plan's administrative staff provided Aon with supplementary data that was needed for the GASB financial reporting information, including asset performance information. Aon relied on the data after reviewing it for internal consistency and after comparing it with information that was previously reported.

# ACTUARY'S CERTIFICATION LETTERS



ERFC Board of Trustees  
Page 2  
October 12, 2022

For funding purposes, assets are valued on a smoothed basis that recognizes each year's difference between actual and assumed investment return over a closed five-year period, subject to a 75% to 125% corridor when compared to the fair value of assets. When determining the Net Pension Liability under GASB Statement No. 67, assets are valued on a market basis. The long term assumed rate of investment return on pension fund assets is 7.00%. Based upon the results of a projection performed in accordance with GASB Statement No. 67 parameters and reported in the June 30, 2022 Actuarial Report, the Single Discount Rate for purposes of discounting pension liabilities for pension financial reporting purposes is also 7.00%.

Actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rates of investment return and payroll growth, eligibility for the various classes of benefits, and longevity among retired lives. These assumptions are adopted by the Board after considering the advice of the actuary and other professionals. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed. The December 31, 2021 valuation was conducted using assumptions that are based on an experience study conducted by Aon in 2020. The revised assumptions were approved by the Board of Trustees at the December 11, 2020 meeting. The assumptions and methods used in the valuation for funding purposes meet the parameters set by the Actuarial Standards of Practice.

It is our understanding that the information prepared by Aon was used by ERFC for the following schedules in their fiscal year 2022 Annual Comprehensive Financial Report:

## Actuarial Section

- Summary of Actuarial Assumptions and Methods
  - Sample Pay Increase Assumptions for an Individual Member
  - Sample Rates of Separation From Active Employment Before Retirement
  - Probabilities of Retirement for Members Eligible to Retire
  - Single Life Retirement Values
- Summary of Member Data Included in Valuation as of December 31, 2021
  - Historical Information for All Members (last 8 years)
  - All Active Members in Valuation on December 31, 2021 by Attained Age and Years of Service
  - Active Members by Years of Service, Salaries and Ages
  - Retirees and Beneficiaries Added and Removed
  - Short-Term Solvency Test
  - Analysis of Financial Experience Including Experience Gains and Losses by Risk Area
  - ERFC Contribution Rates

## ACTUARY'S CERTIFICATION LETTERS



ERFC Board of Trustees  
Page 3  
October 12, 2022

### Financial Section

- Notes to the Schedule of Contributions;
- Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption;
- Schedule of Contributions; and
- Schedule of Changes in Net Pension Liability and Related Ratios.

Based on the information provided, we believe that the ERFC is meeting its basic financial reporting requirements and that the information presented by Aon in the December 31, 2021 funding report and the June 30, 2022 accounting report meets all applicable Actuarial Standards of Practice.

Please let us know if you have any questions.

Sincerely,

Aon

A handwritten signature in black ink that reads "Al-Karim Alidina". The signature is written in a cursive style.

Al-Karim Alidina, FSA, EA

AKA:mw  
Enclosures

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The actuarial assumptions and methods used in making the annual actuarial valuation are summarized in this section. The assumptions were adopted by the Trustees following a study of experience covering the five-year period ending December 31, 2020, with further adjustments to the mortality and salary assumptions adopted by the Board for the December 31, 2016 valuation.

### ECONOMIC ASSUMPTIONS

The **investment return rate** used in making the valuation was 7.25 percent per year, compounded annually (net of investment expenses). The real rate of return is the portion of total investment return, which is more than the wage inflation rate. Based upon an assumed wage inflation rate of 4.00 percent, the 7.25 percent investment return rate translates to an assumed real rate of return over wages of 3.25 percent.

**Pay increase assumptions** for individual active members are shown by years of service below. Part of the assumption is for merit and/or seniority increase, and the other part recognizes price inflation and real wage growth.

### SAMPLE PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER

Service Index	PAY INCREASE ASSUMPTION		
	Merit & Seniority	Base (Economy)	Increase Next Year
0-1	4.50%	2.75%	7.25%
1-7	4.00%	2.75%	6.75%
7-10	3.50%	2.75%	6.25%
10-12	3.00%	2.75%	5.75%
12-14	2.50%	2.75%	5.25%
14-16	2.00%	2.75%	4.75%
16-19	1.50%	2.75%	4.25%
19-21	1.00%	2.75%	3.75%
21-25	0.50%	2.75%	3.25%
25+	0.00%	2.75%	2.75%

**The number of active members** is assumed to continue at the present number.

**Total active member payroll** is assumed to increase 2.75 percent annually, which is the portion of the individual pay increase assumptions attributable to wage inflation. This assumed increase is recognized in the funding of unfunded actuarial accrued liabilities.

### NON-ECONOMIC ASSUMPTIONS

**The probabilities of retirement** for members eligible to retire are shown on the following page.

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

## PROBABILITY OF RETIREMENT FOR MEMBERS ELIGIBLE TO RETIRE

AGE	ERFC (Hired before 7/1/2001)		ERFC 2001 TIER 1 (Hired 7/1/2001-6/30/2017)			ERFC 2001 TIER 2 (Hired On/After 7/1/2017)	
	Type of Retirement		Age Based	Service	Service Based	Age Based Rule of 90 Met	
	Age Based	25+ Years of Service				Yes	No
45	—	2.0 %	—	—	—	—	—
46	—	2.0 %	—	—	—	—	—
47	—	2.0 %	—	—	—	—	—
48	—	2.0 %	—	—	—	—	—
49	—	2.0 %	—	—	—	—	—
50	—	2.0 %	—	—	—	—	—
51	—	2.0 %	—	—	—	—	—
52	—	7.0 %	—	—	—	—	—
53	—	7.0 %	—	—	—	—	—
54	—	15.0 %	—	—	—	—	—
55	12.5 %	40.0 %	—	30	17.5 %	—	—
56	12.5 %	25.0 %	—	31	17.5 %	35.0 %	0.0 %
57	12.5 %	25.0 %	—	32	12.5 %	35.0 %	0.0 %
58	12.5 %	15.0 %	—	33	12.5 %	35.0 %	0.0 %
59	12.5 %	25.0 %	—	34	12.5 %	35.0 %	0.0 %
60	12.5 %	25.0 %	10.0 %	35	10.0 %	35.0%*	0.0 %
61	17.5 %	20.0 %	10.0 %	36	10.0 %	35.0 %	0.0 %
62	20.0 %	30.0 %	10.0 %	37	10.0 %	35.0 %	0.0 %
63	20.0 %	25.0 %	15.0 %	38	25.0 %	35.0 %	0.0 %
64	25.0 %	25.0 %	15.0 %	39	40.0 %	35.0 %	0.0 %
65	40.0 %	35.0 %	25.0 %	40 & up	100.0 %	35.0 %	0.0 %
66	40.0 %	45.0 %	30.0 %	—	—	35.0 %	0.0 %
67	35.0 %	35.0 %	25.0 %	—	—	35.0 %	30.0 %
68	30.0 %	35.0 %	20.0 %	—	—	35.0 %	15.0 %
69	30.0 %	35.0 %	20.0 %	—	—	35.0 %	15.0 %
70	40.0 %	35.0 %	45.0 %	—	—	35.0 %	15.0 %
71	25.0 %	35.0 %	30.0 %	—	—	35.0 %	15.0 %
72	35.0 %	35.0 %	30.0 %	—	—	35.0 %	15.0 %
73	35.0 %	35.0 %	30.0 %	—	—	35.0 %	15.0 %
74	35.0 %	35.0 %	30.0 %	—	—	35.0 %	15.0 %
75 & Over	100.0 %	100.0 %	100.0 %	—	—	100.0%	100.0 %

\* The probability is 60% at age 60 for people who first meet the Rule of 90 at age 60.

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The **mortality table** used to measure retired life mortality was 102% of the male rates and 99% of the female rates of the PUB-2010 Teachers table projected generationally with Scale MP-2020. Mortality rates for a particular calendar year are determined by applying the fully generational MP-2020 Mortality Improvement scale. The rationale for the mortality assumption is based on the 2015-2020 Experience Study issued October 15, 2020 and further analysis done in December 2021. Related values are shown below.

### SAMPLE FUTURE LIFE EXPECTANCY IN YEARS

AGES IN 2022	MALE	FEMALE
55	32.41	34.82
60	27.46	29.88
65	22.71	25.06
70	18.21	20.37
75	14.03	15.92
80	10.33	11.93

The **probabilities of withdrawal** from service, death-in-service, and disability are shown below.

### SAMPLE RATES OF SEPARATION FROM ACTIVE EMPLOYMENT BEFORE RETIREMENT

SAMPLE AGES	PERCENT OF ACTIVE MEMBERS SEPARATING WITHIN NEXT YEAR					
	DEATH		DISABILITY			
	Ordinary and Duty		Ordinary		Duty	
	Male	Female	Male	Female	Male	Female
25	0.0194 %	0.0109 %	0.0146 %	0.0082 %	0.0036 %	0.0020 %
30	0.0310	0.0189	0.0158	0.0122	0.0040	0.0031
35	0.0440	0.0267	0.0234	0.0214	0.0059	0.0054
40	0.0541	0.0354	0.0339	0.0308	0.0085	0.0077
45	0.0705	0.0463	0.0520	0.0456	0.0130	0.0114
50	0.1064	0.0684	0.0842	0.0726	0.0210	0.0181
55	0.2222	0.1976	0.1469	0.1228	0.0367	0.0307
60	0.3805	0.3009	0.2447	0.1770	0.0612	0.0443

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

**Forfeiture** occurs when a vested person separates from service and withdraws contributions thereby forfeiting future rights to an employer financed benefit. The total probability of forfeiture is obtained by multiplying the probability of withdrawal by 10.0%. The table below does not apply to individuals who are eligible for retirement at the time of termination.

### RATES OF FORFEITURE FOLLOWING VESTED SEPARATION

Service	% OF ACTIVE PARTICIPANTS WITHDRAWING	
	Male	Female
0-1	17%	16%
1-2	12%	14%
2-3	12%	13%
3-4	11%	12%
4-5	11%	12%
5-6	9%	11%
6-7	7%	10%
7-8	7%	10%
8-9	7%	8%
9-10	6%	8%
10-11	5%	7%
11-12	4%	7%
12-13	4%	6%
13-14	3%	5%
14-15	3%	5%
15-16	3%	4%
16-17	2%	3%
17-18	2%	2%
18-19	2%	2%
19-20	2%	2%
20-21	2%	2%
21-22	2%	2%
22-23	2%	2%
23-24	2%	2%
24-25	2%	2%

The **individual entry age normal actuarial cost method of valuation** was used for determining actuarial accrued liabilities and normal cost. Actuarial gains and losses reduce or increase the unfunded liability. The unfunded actuarial accrued liabilities are amortized to produce contribution amounts (principal and interest) which are level percent of payroll contributions.

**Present assets (cash and investments) are valued** on a market-related basis effective June 30, 1986. The asset valuation method has been adjusted at various times in the past to reduce volatility (set to market, corridor implementation/adjustment, etc.).

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The data about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA).

# EMPLOYER SCHEDULE OF FUNDING PROGRESS

(Last Ten Years)

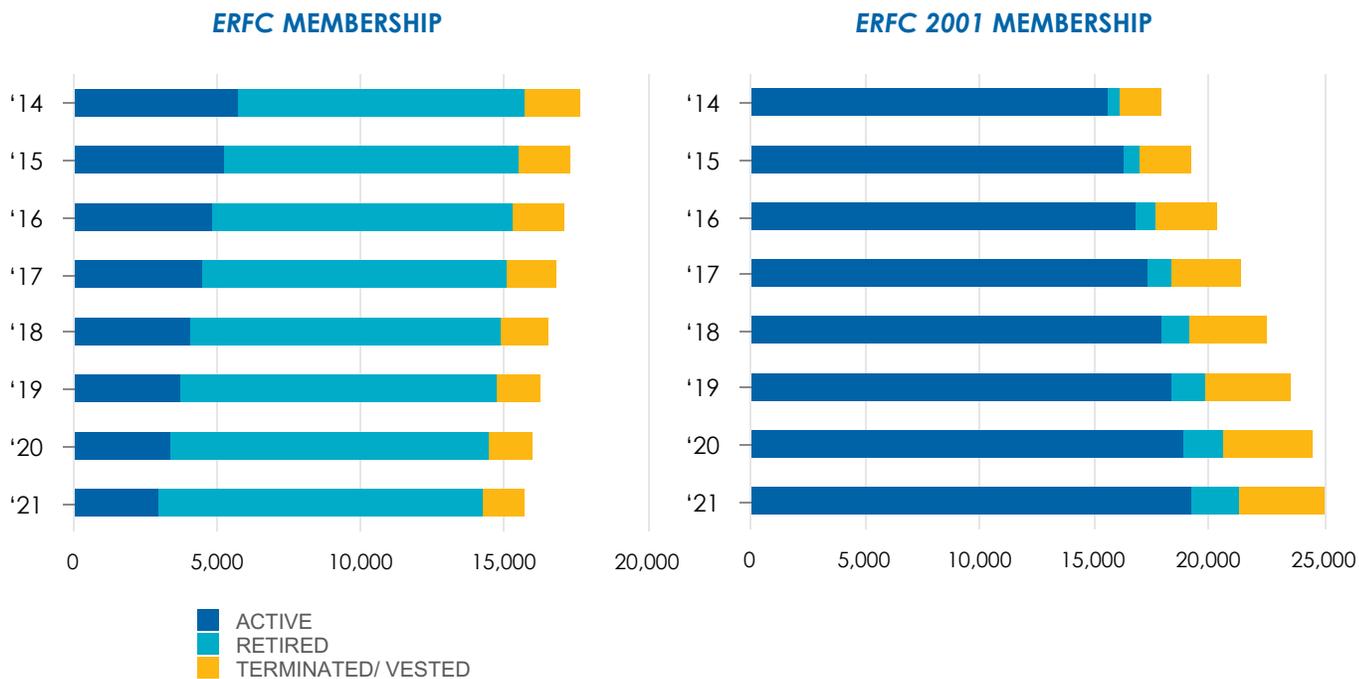
## EMPLOYER SCHEDULE OF FUNDING PROGRESS

(Dollars in Thousands)

Actuarial Valuation Date as of December 31	Actuarial Value of Assets (A)	Actuarial Accrued Liability (AAL) - Entry Age (B)	Unfunded AAL (UAAL) (B-A)	Annual Covered Payroll ( C )	Percent Funded (A/ B)	UAAL Percentage of Covered Payroll [(B-A)/C]
2012	\$ 1,935,292	\$ 2,566,128	\$ 630,836	\$ 1,297,537	75.4 %	48.6 %
2013	2,029,005	2,645,500	616,495	1,320,309	76.7 %	46.7 %
2014	2,123,910	2,733,845	609,935	1,340,344	77.7 %	45.5 %
2015	2,188,037	2,880,703	692,666	1,373,096	76.0 %	50.4 %
2016	2,279,741	3,032,503	752,762	1,436,588	75.2 %	52.4 %
2017	2,398,668	3,167,941	769,273	1,475,449	75.7 %	52.1 %
2018	2,466,004	3,334,114	868,110	1,554,614	74.0 %	55.8 %
2019	2,582,582	3,468,150	885,568	1,632,427	74.5 %	54.2 %
2020	2,786,297	3,635,244	848,947	1,633,458	76.6 %	52.0 %
2021	\$ 3,058,883	\$ 3,921,052	\$ 862,169	\$ 1,662,801	78.0 %	51.9 %

## SUMMARY OF MEMBER DATA

(Last Eight Years)



Calendar Year	ERFC			ERFC 2001			Total
	Active	Retired	Terminated/Vested	Active	Retired	Terminated/Vested	
2014	5,754	10,006	1,917	15,598	518	1,844	35,637
2015	5,292	10,253	1,845	16,293	684	2,254	36,621
2016	4,892	10,476	1,778	16,856	891	2,668	37,561
2017	4,488	10,657	1,705	17,353	1,072	3,054	38,329
2018	4,115	10,815	1,636	17,933	1,286	3,360	39,145
2019	3,761	10,998	1,555	18,415	1,499	3,670	39,898
2020	3,408	11,092	1,523	18,952	1,750	3,892	40,617
2021	3,019	11,263	1,455	19,310	2,075	4,328	41,450

## SUMMARY OF MEMBER DATA

(As of December 31, 2021)

## ACTIVE ERFC MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE

AGE GROUP	YEARS OF SERVICE TO VALUATION DATE							TOTALS		AVERAGE
	0-4	5-9	10-14	15-19	20-24	25-29	30 & UP	NO.	SALARY	
35-39	—	—	—	—	—	—	—	—	\$ —	\$ —
40-44	—	3	11	25	86	—	—	125	12,197,889	97,583
45-49	2	21	56	77	447	64	—	667	69,415,020	104,070
50-54	3	29	40	80	464	323	50	989	102,416,803	103,556
55-59	1	17	43	46	311	148	41	607	57,997,674	95,548
60	—	—	2	4	61	24	11	102	9,028,264	88,512
61	—	1	2	3	50	25	11	92	8,131,111	88,382
62	1	—	4	5	56	15	5	86	7,585,451	88,203
63	—	1	1	2	34	17	6	61	5,387,622	88,322
64	—	1	2	4	42	13	8	70	6,017,700	85,967
65	—	—	—	4	29	12	7	52	4,505,678	86,648
66	—	—	—	5	21	8	9	43	3,968,126	92,282
67	—	—	—	3	18	7	2	30	2,654,788	88,493
68	—	1	—	2	13	2	1	19	1,523,760	80,198
69	—	—	—	2	12	5	5	24	2,050,648	85,444
70	—	—	1	—	2	2	3	8	598,162	74,770
71	—	—	—	—	4	2	3	9	823,193	91,466
72	—	—	—	1	3	—	2	6	540,935	90,156
73	—	1	—	1	5	1	2	10	965,747	96,575
74	—	1	—	—	3	—	—	4	342,836	85,709
75 & over	—	—	—	—	6	3	6	15	1,368,099	91,207
<b>TOTAL</b>	<b>7</b>	<b>76</b>	<b>162</b>	<b>264</b>	<b>1,667</b>	<b>671</b>	<b>172</b>	<b>3,019</b>	<b>\$ 297,519,506</b>	<b>\$ 98,549</b>

## SUMMARY OF MEMBER DATA

(As of December 31, 2021)

## ACTIVE ERFC 2001 (TIER 1) MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE

AGE GROUP	YEARS OF SERVICE TO VALUATION DATE					TOTALS		AVERAGE
	0-4	5-9	10-14	15-19	20 & UP	NO.	SALARY	
20-24	1	—	—	—	—	1	\$ 54,403	\$ 54,403
25-29	32	370	1	—	—	403	25,086,462	62,249
30-34	63	1,386	259	—	—	1,708	119,828,142	70,157
35-39	46	843	903	213	—	2,005	157,774,736	78,691
40-44	51	599	546	771	72	2,039	175,833,743	86,235
45-49	50	583	355	442	94	1,524	128,709,228	84,455
50-54	52	607	426	434	74	1,593	126,969,013	79,704
55-59	26	517	435	404	63	1,445	106,975,800	74,032
60	5	66	72	88	16	247	17,616,003	71,320
61	5	49	58	86	10	208	15,556,121	74,789
62	1	42	57	80	19	199	15,347,474	77,123
63	2	37	54	52	9	154	11,236,052	72,961
64	—	27	38	59	11	135	10,644,286	78,847
65	1	18	31	32	10	92	6,701,472	72,842
66	2	17	24	27	3	73	4,910,722	67,270
67	—	11	15	23	2	51	3,439,336	67,438
68	1	9	11	20	2	43	2,980,221	69,307
69	—	11	6	16	2	35	2,761,057	78,887
70	1	8	3	6	2	20	1,328,183	66,409
71	2	3	7	9	1	22	1,602,928	72,860
72	—	2	3	7	—	12	653,755	54,480
73	—	3	3	2	—	8	369,130	46,141
74	—	3	1	—	—	4	146,925	36,731
75 & over	2	5	—	6	1	14	877,826	62,702
<b>TOTAL</b>	<b>343</b>	<b>5,216</b>	<b>3,308</b>	<b>2,777</b>	<b>391</b>	<b>12,035</b>	<b>\$ 937,403,018</b>	<b>\$ 77,890</b>

## SUMMARY OF MEMBER DATA

(As of December 31, 2021)

### ACTIVE ERFC 2001 (TIER 2) MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE

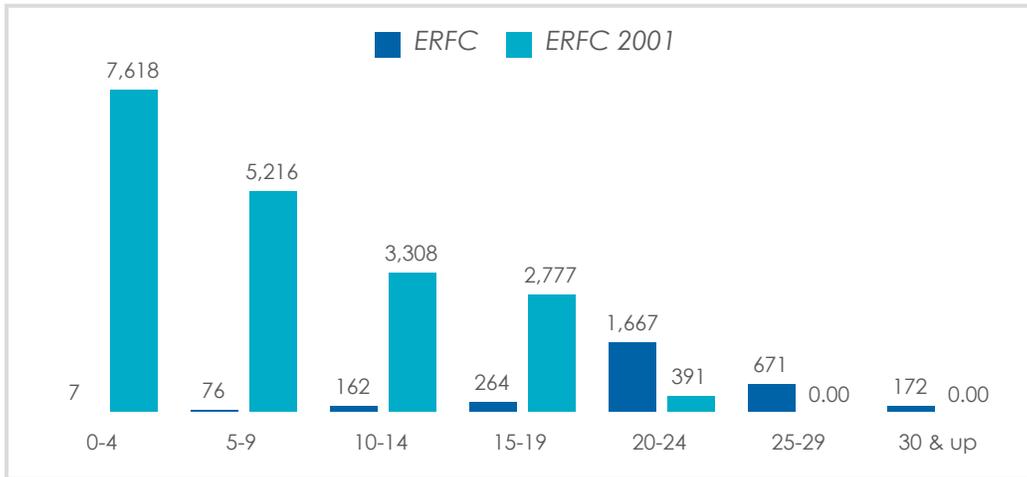
AGE GROUP	YEARS OF SERVICE TO VALUATION DATE				TOTALS		AVERAGE
	0-4	5-9	10-14	15 & UP	NO.	SALARY	
15-19	3	—	—	—	3	\$ 76,500	\$ 25,500
20-24	636	—	—	—	636	30,512,350	47,975
25-29	1,854	—	—	—	1,854	101,053,771	54,506
30-34	1,035	—	—	—	1,035	61,838,424	59,747
35-39	825	—	—	—	825	52,598,406	63,756
40-44	785	—	—	—	785	50,732,931	64,628
45-49	772	—	—	—	772	48,015,485	62,196
50-54	672	—	—	—	672	41,153,131	61,240
55-59	427	—	—	—	427	25,970,478	60,821
60	67	—	—	—	67	3,942,206	58,839
61	37	—	—	—	37	2,137,338	57,766
62	41	—	—	—	41	2,521,105	61,490
63	34	—	—	—	34	2,099,411	61,747
64	23	—	—	—	23	1,536,287	66,795
65	22	—	—	—	22	1,147,537	52,161
66	12	—	—	—	12	777,533	64,794
67	2	—	—	—	2	77,671	38,836
68	7	—	—	—	7	439,441	62,777
69	10	—	—	—	10	542,250	54,225
70	4	—	—	—	4	270,095	67,524
71	1	—	—	—	1	79,897	79,897
72	1	—	—	—	1	57,783	57,783
74	3	—	—	—	3	108,793	36,264
75 & over	2	—	—	—	2	189,875	94,938
<b>TOTAL</b>	<b>7,275</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>7,275</b>	<b>\$ 427,878,698</b>	<b>\$ 58,815</b>

# SUMMARY OF MEMBER DATA

(As of December 31, 2021)

## ACTIVE MEMBER YEARS OF SERVICE

Average Service = 9.8 years



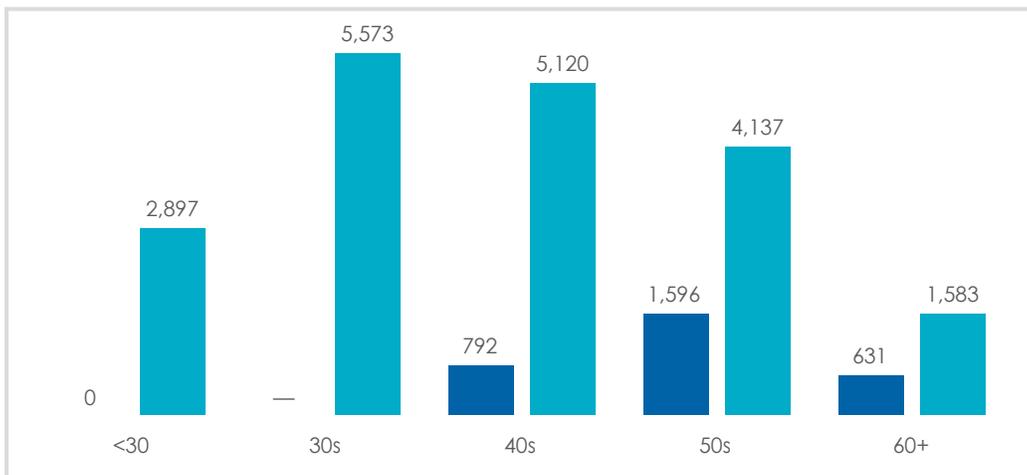
## ACTIVE MEMBER SALARIES (\$ IN THOUSANDS)

Average Annual Pay = \$74,468



## ACTIVE MEMBER AGES

Average Age = 44.5 years | Total Active Members = 22,329



## SUMMARY OF MEMBER DATA

(Last 10 Years)

### ACTIVE MEMBER VALUATION DATA

ANNUAL VALUATION DATE	ANNUAL NUMBER	ANNUAL PAYROLL	AVERAGE ANNUAL PAY	% INCREASE IN AVERAGE PAY
December 31, 2012	21,519	\$ 1,297,536,507	\$ 60,297	1.4 %
December 31, 2013	21,643	1,320,308,508	61,004	1.2
December 31, 2014	21,352	1,340,343,666	62,774	2.9
December 31, 2015	21,585	1,373,095,719	63,613	1.3
December 31, 2016	21,748	1,436,587,994	66,056	3.8
December 31, 2017	21,841	1,475,449,186	67,554	2.3
December 31, 2018	22,048	1,554,614,462	70,510	4.4
December 31, 2019	22,176	1,632,427,309	73,612	4.4
December 31, 2020	22,360	1,633,457,804	73,053	—
December 31, 2021	22,329	\$ 1,662,801,220	\$ 74,468	1.9

### RETIRANTS AND BENEFICIARIES ADDED AND REMOVED (10 YEARS)

ADDED TO PAYROLL			REMOVED FROM PAYROLL		PAYROLL AT END OF YEAR			
Calendar Year	No.	Annualized Monthly Benefit	No.	Annualized Monthly Benefit	No.	Annualized Monthly Benefit	Average Annualized Monthly Benefit	% Increase in Monthly Benefit
2012	636	\$ 821,485	315	\$ 194,842	9,788	\$ 12,867,671	\$ 1,315	3.69
2013	653	773,322	285	230,145	10,156	13,065,714	1,287	1.54
2014	629	738,766	261	213,231	10,524	13,206,280	1,255	1.08
2015	677	798,525	264	230,255	10,937	13,439,526	1,229	1.77
2016	672	715,048	242	228,976	11,367	13,682,009	1,204	1.80
2017	646	825,458	284	268,684	11,729	14,008,708	1,194	2.39
2018	666	776,099	294	280,925	12,101	14,320,306	1,183	2.28
2019	634	763,576	253	264,402	12,482	14,709,284	1,178	2.72
2020	637	840,599	277	267,780	12,842	15,142,804	1,179	2.95
2021	760	\$ 642,949	264	\$ 229,477	13,338	\$ 15,640,380	\$ 1,173	3.29

## SHORT-TERM SOLVENCY TEST

If the contributions to ERFC are level in concept and soundly executed, the System will be able to pay all promised benefits when due — the ultimate test of financial soundness. Testing for level contribution rates is the long-term test. A short-condition test is one means of checking a system's progress under its funding program. In a short-condition test, the plan's present assets (cash and investments) are compared with:

- 1) Active member contributions on deposit;
- 2) The liabilities for future benefits to present retired lives; and
- 3) The liabilities for service already rendered by active members.

In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (A' below) and the liabilities for future benefits to present retired lives (B') will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (C') will be partially covered by the remainder of present assets, and the larger the funded portion of liability, the stronger the condition of the system.

### AGGREGATE ACTUARIAL ACCRUED LIABILITIES

Last 20 years

(Dollar in thousands)

VALUATION DATE	MEMBER CONTRIBUTIONS (A)	RETIRES AND BENEFICIARIES (B)	MEMBERS (EMPLOYER FINANCED PORTION) (C)	PORTION OF ACCRUED LIABILITIES COVERED BY ASSETS			
				VALUATION ASSETS	(A')	(B')	(C')
6/30/2002	\$ 170,849	\$ 699,251	\$ 823,856	\$ 1,619,889	100 %	100 %	91 %
6/30/2003 (1)	176,648	903,963	691,807	1,597,459	100	100	75
12/31/2004 (2)	227,725	1,083,988	623,869	1,643,020	100	100	53
12/31/2005	257,142	1,130,378	635,442	1,718,399	100	100	52
12/31/2006	239,780	1,176,979	688,793	1,818,930	100	100	58
12/31/2007	269,404	1,221,969	695,428	1,924,886	100	100	62
12/31/2008 (3)	302,910	1,237,613	714,775	1,733,946	100	100	27
12/31/2009	342,663	1,264,675	706,944	1,769,540	100	100	23
12/31/2009 (2)	342,663	1,314,885	682,321	1,769,540	100	100	16
12/31/2010 (3)	374,086	1,355,093	654,882	1,822,603	100	100	14
12/31/2011 (1)	402,847	1,401,877	666,240	1,866,952	100	100	9
12/31/2012	426,609	1,448,291	691,228	1,935,292	100	100	9
12/31/2013	439,310	1,482,770	723,420	2,029,005	100	100	15
12/31/2014	457,591	1,510,717	765,537	2,123,910	100	100	20
12/31/2015 (2)	472,933	1,590,489	817,281	2,188,037	100	100	15
12/31/2016 (1)(2)	491,333	1,668,485	872,685	2,279,741	100	100	14
12/31/2017	510,583	1,733,431	923,927	2,398,668	100	100	17
12/31/2018	528,500	1,791,189	1,014,425	2,466,004	100	100	14
12/31/2019	550,487	1,841,322	1,076,341	2,582,582	100	100	18
12/31/2020	574,541	1,903,321	1,157,382	2,786,297	100	100	27
12/31/2021	589,959	2,013,044	1,318,050	3,058,883	100	100	35

(1) After change in benefits or contribution rates.

(2) After changes in actuarial assumptions.

(3) After change in asset valuation method.

## ANALYSIS OF FINANCIAL EXPERIENCE

**Pay Increases.** If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.

**Investment Return.** If there is a greater investment return than assumed, there is a gain. If smaller return, a loss.

**Age & Service Retirement.** If members retire at older ages than assumed, there is a gain. If at younger ages, a loss.

**Disability & Death in Service.** If disability claims are less than assumed, there is a gain. If claims are more, a loss. If survivor claims are less than assumed, there is a gain. If claims are more, a loss.

**Other Separations.** If more liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.

### EXPERIENCE GAINS AND LOSSES BY RISK AREA (Dollars in Millions)

Experience Period	Economic Risk		Demographic Risk				Total Gain (Loss)	
	Pay Increases	Investment Return	Age and Service Retirement	Disability and Death-in Service	Other Separations	Other <sup>(1)</sup>	Amount	Percent of Liabilities
For Periods Ending June 30								
2001-02	\$ 3.0	\$ (50.4)	\$ 3.5	\$ (1.1)	\$ 2.6	\$ (29.9)	\$ (72.3)	(4.7)%
2001-02	3.0	(50.4)	3.5	(1.1)	2.6	(29.9)	(72.3)	(4.7)
2002-03	18.5	(92.5)	11.0	(0.3)	4.0	(23.3)	(82.6)	(4.9)
For Periods Ending December 31								
2003-04 (2)	NA	NA	NA	NA	NA	NA	NA	NA
2005 (3)	(7.1)	1.9	1.0	0.1	0.0	(3.2)	(7.3)	(0.4)
2006	(4.7)	23.6	2.0	0.0	(0.8)	2.6	22.7	1.1
2007	10.0	25.1	1.9	(0.2)	(2.2)	(7.2)	27.4	1.4
2008	4.1	(277.5)	5.2	(0.4)	(4.0)	13.5	(259.1)	(11.8)
2009	45.0	(34.6)	8.8	(0.8)	(10.0)	(11.6)	(3.2)	(0.1)
2010 (3)	53.1	(16.9)	5.2	0.2	(5.3)	(4.2)	32.1	1.4
2011	18.8	(30.6)	5.3	(0.2)	(4.2)	(4.8)	(15.7)	(0.7)
2012	12.3	(10.8)	4.6	(0.3)	(3.4)	(10.2)	(7.8)	(0.3)
2013	16.6	7.6	5.7	0.0	2.9	(5.1)	27.7	1.1
2014	8.5	(2.8)	5.8	(0.1)	0.6	2.8	14.8	0.6
2015 (3)	17.7	(40.2)	5.9	(0.4)	1.0	(12.4)	(28.4)	(1.0)
2016	(14.2)	(13.9)	5.1	0.2	6.6	(5.6)	(21.8)	(0.8)
2017	8.8	2.7	3.3	0.0	2.6	(19.6)	(2.2)	(0.1)
2018	(16.1)	(77.7)	(6.0)	(1.8)	4.3	(6.0)	(103.3)	(3.3)
2019	(12.0)	(26.5)	(4.1)	(2.7)	6.3	(1.7)	(40.7)	(1.2)
2020 (3)	(10.5)	51.6	1.9	(4.7)	1.9	(7.6)	32.6	0.9
2021	14.9	110.6	(14.6)	3.0	4.2	(1.8)	116.3	3.2

(1) Includes post-retirement mortality

(2) Due to transition to calendar year valuations, a gain/loss analysis was not conducted for this valuation period.

(3) Experience Study

## SUMMARY OF BENEFIT PROVISIONS

Available to a Member Retiring with Some Service Before July 1, 1988 (ERFC Members)

**Service Retirement: Alternate Amount After Social Security Normal Retirement Age.** By election at time of retirement, a member with service before July 1, 1988, may elect to receive 1988 new benefits with a special alternate amount for payment periods after the age the member becomes eligible for full Social Security benefits. The alternate amount is 103 percent of the total of:

- 1) the amount payable under June 30, 1987, benefit provisions,
- 2) plus, if the retiring member is younger than age 65 and if creditable Virginia service is less than 30 years, 1.65 percent of VRS average final compensation in excess of \$1,200, multiplied by years of creditable Virginia service, and further multiplied by a certain percent based upon the number of months that retirement occurs before reaching the earlier of the above two conditions; such percent is half of one percent for each of the first 60 such months and 4/10 of one percent for each of the next 60 such months, if any.

**Reduced Service Retirement: With 25 Years Service.** By election at time of retirement, such a member may elect to receive 103 percent of the following combination of benefits:

- **To age 55**, 2.85 percent of the 3-year average annual salary multiplied by years of credited service, then actuarially reduced to reflect retirement age younger than age 55; and
- **From age 55 to Social Security Normal Retirement Age**, the amount to age 55 reduced by: 1.65 percent of the portion of VRS average final compensation in excess of \$1,200, multiplied by applicable years of creditable Virginia service; provided if creditable Virginia service is less than 30 years, the result of such multiplication shall be actuarially reduced for each month before the earlier of (1) attainment of age 65, and (2) the date when 30 years service would have been completed; and
- **From Social Security Normal Retirement Age for life**, the amount payable at age 65 according to June 30, 1987, provisions or the amount payable at age 65 according to July 1, 1988, provisions.

## SUMMARY OF BENEFIT PROVISIONS

For a Person Becoming a Member after July 1, 1988 but Before July 1, 2001 (ERFC Members)

**Final Average Compensation (FAC):** A member's final average compensation is the average of the 3 highest consecutive years of salary during eligible employment.

**Service Retirement Eligibility:** A member may retire any time after reaching the service retirement date, which is either (i) age 65 with 5 years service or (ii) age 55 with 25 years of service.

**Service Retirement Pension:** For payment periods during the retired member's lifetime 103 percent times (I) minus (II) where:

- (I) means 1.85 percent of the FAC multiplied by years of credited service, and
- (II) means 1.65 percent of the portion of VRS FAC in excess of \$1,200, multiplied by applicable years of creditable Virginia service; provided if the member is younger than age 65 and if creditable Virginia service is less than 30 years, the result of such multiplication shall be reduced for each month before the earlier of:
  - 1) attainment of age 65, and
  - 2) the date when 30 years service would have been completed.

The reduction shall be one-half of 1% for each of the first 60 months and four-tenths of one percent for each month beyond 60 months, if any.

For payment periods, if any, before the age the member becomes eligible for full Social Security benefits, an additional temporary benefit equal to 1 percent of the FAC multiplied by years of credited service.

**Reduced Service Retirement:** A member with 25 years service but younger than age 55 may retire after age 45. A member with less than 25 years service and younger than age 65 may retire after age 55.

**Reduced Service Retirement: Amount After 25 Years Service.** Service Retirement amount reduced to reflect retirement age younger than age 55.

**Reduced Service Retirement: Amount After 5-24 Years Service.** For payment periods during the retired member's lifetime, the Service Retirement amount payable at age 65 reduced to reflect that the retirement age younger than age 65. For payment periods before the age the member becomes eligible for full Social Security benefits, an additional temporary benefit equal to the Service Retirement temporary benefit reduced to reflect that the retirement age is younger than age 65.

**Disability Retirement:** An active member with 5 or more years of service who becomes totally and permanently disabled may be retired and receive a disability pension. The 5 year service requirement is waived if the disability is service-connected.

The amount is 103 percent times a lifetime pension equal to 0.25 percent of the FAC multiplied by years of credited service. Credited service shall be increased by the time period from disability retirement to the date when member would have reached service retirement date. The minimum pension payable is 2.5 percent of FAC.

## SUMMARY OF BENEFIT PROVISIONS

For a Person Becoming a Member after July 1, 1988 but Before July 1, 2001 (*ERFC Members*)

**Death-in-Service Benefits:** An active member with 5 or more years of service who dies will have benefits payable to the surviving spouse or other eligible beneficiary. The 5 year service requirement is waived if the death is service-connected.

**Deferred Retirement:** Calculated in the same manner as reduced service retirement.

**Member Contributions:** Members contribute 3 percent of their salaries. Interest credits of 5 percent are added annually through June 30, 2017, and 4 percent annually thereafter. If a member leaves covered employment before becoming eligible to retire, accumulated contributions are returned upon request. Members who receive a refund of contributions and are later rehired become members of *ERFC 2001 Tier 2*.

**Post-Retirement Increases:** On March 31, most pensions are increased by 3 percent. These increases are compounded each year. Pensions of members or beneficiaries who retired in the immediately preceding calendar year are increased by 1.489 percent ( $\frac{1}{2}$  of a year's increase).

**Lifetime Level Benefit:** Members retiring after July 1, 2004, are eligible for a lifetime level benefit (LLB) that is calculated by determining the annuitized value of the greater of their accumulated contribution balance or the present value of the currently provided benefit.

### Optional Forms of Payment:

- Option A — 100 percent joint and survivor.
- Option B — 50 percent joint and survivor.
- Option C — 10 years certain and life.
- Option D — Single sum payment not exceeding member's accumulated contribution balance, plus a single life annuity actuarially reduced from the pension amount otherwise payable.

## SUMMARY OF BENEFIT PROVISIONS

For a Person Becoming a Member July 1, 2001 but before July 1, 2017 (*ERFC 2001 Tier 1*)

**Final Average Compensation (FAC):** A member's final average compensation is the average of the 3 highest consecutive years of salary during eligible employment.

**Service Retirement Eligibility:** A member may retire at age 60 with 5 years service, or after 30 years of credited service, regardless of age.

**Service Retirement Pension:** The amount is a lifetime pension equal to 0.8 percent of the FAC multiplied by years of credited service. If necessary, the pension will be increased to make the reserve value of the pension equal to the member's accumulated contributions as of the retirement effective date.

**Death-in-Service Benefits:** Any member with 5 or more years of credited service who dies before beginning to receive a pension will have benefits payable to the nominated beneficiary.

The amount is a pension equal to 0.8 percent of the 3-year average annual salary multiplied by years of credited service at date of death, reduced in accordance with an option A election and payable at age 60. Beneficiaries may elect to receive benefits before age 60 if benefits are further reduced as follows:

- an additional reduction of the smaller of
  - 1)  $\frac{1}{2}$  of 1 percent for the first 60 months and  $\frac{4}{10}$  of 1 percent for each additional month between the member's age at the date of death and age 60, and
  - 2)  $\frac{1}{2}$  of 1 percent for the first 60 months and  $\frac{4}{10}$  of 1 percent for each additional month between the member's service at the date of death and 30 years.

**Deferred Retirement:** Any member with 5 or more years of credited service who terminates employment prior to the service retirement date, will be entitled to a pension with payments beginning at age 60, provided accumulated contributions are left on deposit with the Plan.

The amount is equal to 0.8 percent of FAC at retirement multiplied by years of credited service. If necessary, the pension will be increased to make the reserve value of the pension equal to the member's accumulated contributions as of the effective retirement date.

**Member Contributions:** Members contribute 3 percent of their salaries. Interest credits of 5 percent are added annually through June 30, 2017, and 4 percent annually thereafter. If a member leaves covered employment before becoming eligible to retire, accumulated contributions are returned upon request.

Members who receive a refund of contributions and are later rehired become members of *ERFC 2001 Tier 2*.

**Post-Retirement Increases:** On March 31, most pensions are increased by 3 percent. These increases are compounded each year. Pensions of members or beneficiaries who retired in the immediately preceding calendar year are increased by 1.489 percent.

*Before July 1, 2017, continued on next page*

## SUMMARY OF BENEFIT PROVISIONS

For a Person Hired On/After July 1, 2017 (ERFC 2001 Tier 2)

**Final Average Compensation (FAC):** A member's Final Average Compensation is the average of the 5 highest years of salary during eligible employment.

**Service Retirement Eligibility:** A member may retire at Full Social Security Age (FSSA) with 5 or more years of credited service, or when the sum of age plus service is greater than or equal to 90 (i.e., Rule of 90).

**Service Retirement Pension:** The amount is a lifetime pension equal to 0.8 percent of FAC at retirement multiplied by years of credited service. If necessary, the pension will be increased to make the reserve value of the pension equal to the member's accumulated contributions as of the retirement effective date.

**Death-in-Service Benefits:** Any member with 5 or more years of credited service who dies before beginning to receive a pension will have benefits payable to the named beneficiary.

The amount is a lifetime pension equal to 0.8 percent of FAC multiplied by years of credited service at the date of death. If necessary, the pension will be increased to make the reserve value of the pension equal to the member's accumulated contributions as of the date of death.

The pension will be adjusted in accordance with an Option A (in the case of a spouse or an ex-spouse subject to a Domestic Relations Order (DRO)) or Option B (in case of another eligible beneficiary) election payable immediately unless the member did not reach the service retirement eligibility prior to death, in which case the pension is reduced for each month that the member was younger than service retirement eligibility on the date of death in the following manner:

- 1) one-half of 1% for each of the first 60 months and four-tenths of one percent for each month beyond 60 months (the number of months used for reduction is based on the lesser of FSSA or the age the member would have attained "Rule of 90.")

**Deferred Retirement:** Any member with 5 or more years of credited service who terminates employment prior to the service retirement date, will be eligible to receive a deferred vested pension commencing at FSSA, provided accumulated contributions are left on deposit with the Plan.

The amount is a lifetime pension equal to 0.8 percent of FAC at termination multiplied by years of credited service. If necessary, the pension will be increased to make the reserve value of the pension equal to the member's accumulated contributions as of the effective retirement date.

**Members Contributions:** Members contribute 3 percent of their salaries. Interest credits are 4 percent annually. If a member leaves covered employment before becoming eligible to retire, accumulated contributions are returned upon request.

**Cost-of-Living Adjustments:** The amount of the monthly benefit is adjusted each March 31, by 100 percent of the Consumer Price Index (CPI-U) for the Washington, D.C., metropolitan area for the period ending in November (with a cap of 4 percent) compounded annually, beginning with the March 31 that is more than three full months after the members effective retirement date. Pensions of members that retire in the immediately preceding calendar year are increased by one-half a year's increase.

## SUMMARY OF BENEFIT PROVISIONS

For a Person Hired On/After July 1, 2017 (ERFC 2001 Tier 2)

**Optional Methods of Payment:** Before the effective retirement date, a retiring member may elect one of the following options:

Option A — 100 percent joint and survivor benefit.

Benefit is 85 percent of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 94 percent of the straight life amount.

Option B — 50 percent joint and survivor benefit.

Benefit is 91 percent of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 97 percent of the straight life amount.

Option C — 10 years certain and life. Benefit is 96 percent of the straight life amount.

## ERFC CONTRIBUTION RATES

(Last 20 years)

Fiscal Year	Contribution Rate		Total
	Employee	Employer	
ERFC began using composite rates effective July 1, 1999			
2003	2.00	4.00	6.00
2004	2.00	4.29	6.29
7/1 to 5/30	4.00	2.53	6.53
6/1 to 6/30	4.00	3.37	7.37
2005	4.00	3.37	7.37
2006	4.00	3.37	7.37
2007	4.00	3.37	7.37
2008	4.00	3.37	7.37
2009	4.00	3.37	7.37
2010	4.00	3.20	7.20
2011	4.00	4.04	8.04
2012	4.00	4.34	8.34
2013	3.00	5.34	8.34
2014	3.00	5.60	8.60
2015	3.00	5.60	8.60
2016	3.00	5.60	8.60
2017	3.00	5.60	8.60
2018	3.00	6.24	9.24
2019	3.00	6.26	9.26
2020	3.00	6.44	9.44
2021	3.00	6.44	9.44
2022	3.00	6.70	9.70

## SUMMARY OF PLAN CHANGES

There were no significant plan changes during the valuation period ending December 31, 2021.

# STATISTICAL

UNAUDITED

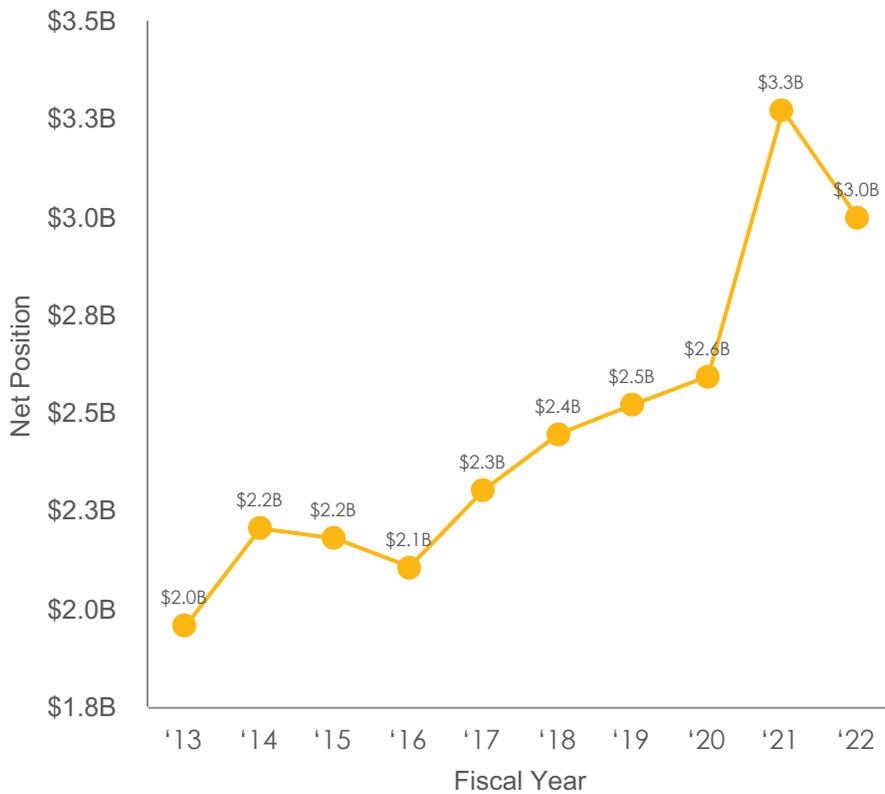
The Statistical Section depicts historical information for the retirement plan. This information includes a 10-year analysis of the sources of change in fiduciary net position, benefit payments, number of retired members, and average monthly benefits. Sources of additions include employer and plan member contributions and net investment income; deductions include benefit payments to retirees and beneficiaries, refunded 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, service-connected and ordinary disability benefits, and survivor benefits.

- 
- Net Position
  - Changes in Net Position
  - Assets and Liabilities Comparative Statement
  - Benefit Deductions from Net Position by Type
  - Benefit Refunds by Type
  - Retired Members by Type of Benefit
  - Average Benefit Payments by Years of Service
  - Average Composite Monthly Benefit Payments for Retirees
  - Retirees and Beneficiaries Current Annual Benefits Tabulated by Attained Ages
  - Inactive Vested Members Deferred Benefits by Attained Ages

# NET POSITION

Last 10 Fiscal Years

## NET POSITION



Fiscal Year	Net Position
2022	\$ 2,997,909,880
2021	3,272,147,083 (1)
2020	2,593,383,175
2019	2,521,441,472
2018	2,446,279,897
2017	2,304,281,654
2016	2,107,587,698
2015	2,179,724,057
2014	2,204,927,191
2013	1,956,772,826

(1) Fiscal year 2021 net position restated due to the implementation of GASB statement 87.

# CHANGES IN NET POSITION

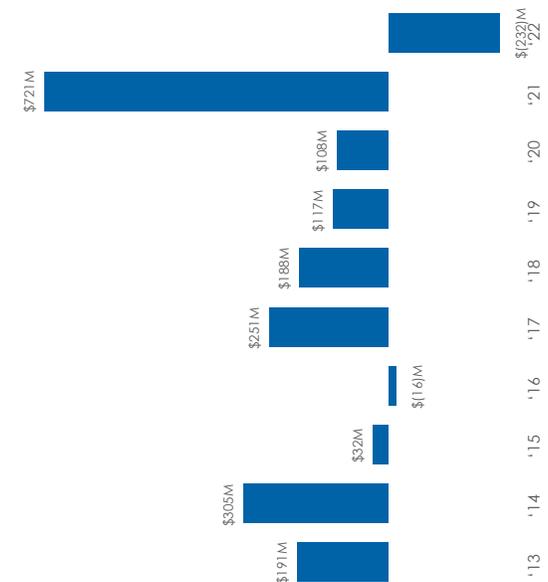
Last 10 Fiscal Years

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>ADDITIONS</b>										
Employee contributions	\$ 38,428,367	\$ 40,018,590	\$ 39,982,963	\$ 41,383,642	\$ 43,062,632	\$ 44,169,100	\$ 46,645,396	\$ 49,095,601	\$ 48,934,340	\$ 50,017,839
Employer contributions	67,734,634	74,174,082	74,324,396	76,599,695	80,094,538	91,704,877	96,982,911	104,741,255	104,784,310	111,119,456
Investment income (net of expenses)	190,947,851	304,640,803	32,083,908	(15,766,967)	250,981,777	188,145,489	117,727,500	108,472,534	720,738,680	(232,237,621)
<b>TOTAL ADDITIONS TO PLAN NET POSITION</b>	<b>297,110,852</b>	<b>418,833,475</b>	<b>146,391,267</b>	<b>102,216,370</b>	<b>374,138,947</b>	<b>324,019,466</b>	<b>261,355,807</b>	<b>262,309,390</b>	<b>874,457,330</b>	<b>(71,100,326)</b>
<b>DEDUCTIONS</b>										
Benefit payments	160,098,128	161,276,831	162,145,265	165,721,790	168,783,718	173,052,461	177,422,308	181,587,150	187,660,019	194,239,563
Contribution refunds	4,419,806	5,772,959	5,697,311	4,626,057	4,601,865	4,667,835	4,509,765	4,399,346	3,605,963	4,415,933
Admin. & depreciation expenses	3,588,414	3,629,320	3,751,825	4,004,882	4,059,408	4,300,927	4,262,159	4,381,191	4,423,439	4,481,381
<b>TOTAL DEDUCTIONS TO PLAN NET POSITION</b>	<b>168,106,348</b>	<b>170,679,110</b>	<b>171,594,401</b>	<b>174,352,729</b>	<b>177,444,991</b>	<b>182,021,223</b>	<b>186,194,232</b>	<b>190,367,687</b>	<b>195,689,421</b>	<b>203,136,877</b>
<b>CHANGE IN NET POSITION</b>	<b>\$ 129,004,504</b>	<b>\$ 248,154,365</b>	<b>\$ (25,203,134)</b>	<b>\$ (72,136,359)</b>	<b>\$ 196,693,956</b>	<b>\$ 141,998,243</b>	<b>\$ 75,161,575</b>	<b>\$ 71,941,703</b>	<b>\$ 678,767,909</b>	<b>\$ (274,237,203)</b>

## ADDITIONS BY SOURCE

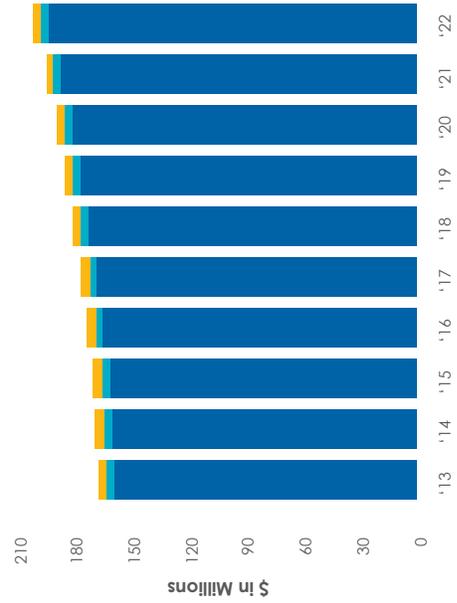
EMPLOYEE/EMPLOYER CONTRIBUTION

NET INVESTMENT INCOME



## DEDUCTIONS BY TYPE

Benefit payments  
Administrative expenses  
Contribution refunds



# ASSETS AND LIABILITIES COMPARATIVE STATEMENT

Last 10 Years

Dollars in Thousands

Valuation Date	Active Member Payroll	Computed Liabilities			Actuarial Value of Assets	Unfunded Accrued Liabilities	Funded Ratio
		Retired	Members	Total			
12/31/2012	1,297,537	1,448,291	1,117,837	2,566,128	1,935,292	630,836	75.4
12/31/2013	1,320,309	1,482,770	1,162,730	2,645,500	2,029,005	616,495	76.7
12/31/2014	1,340,344	1,510,717	1,223,128	2,733,845	2,123,910	609,935	77.7
12/31/2015 (1)	1,373,096	1,590,489	1,290,214	2,880,703	2,188,037	692,666	76.0
12/31/2016 (1)(2)	1,436,588	1,668,485	1,364,018	3,032,503	2,279,741	752,762	75.2
12/31/2017	1,475,449	1,733,431	1,434,510	3,167,941	2,398,668	769,273	75.7
12/31/2018	1,554,614	1,791,189	1,542,925	3,334,114	2,466,004	868,110	74.0
12/31/2019	1,632,427	1,841,322	1,626,828	3,468,150	2,582,582	885,568	74.5
12/31/2020	1,633,458	1,903,321	1,731,923	3,635,244	2,786,297	848,947	76.6
12/31/2021	1,662,801	2,013,044	1,908,008	3,921,052	3,058,883	862,169	78.0

(1) After changes in actuarial assumptions.

(2) After change in benefits.

## BENEFIT DEDUCTIONS FROM NET POSITION BY TYPE

Last 10 Fiscal Years

Fiscal Year	Service Benefits				Death Benefits		Disability Benefits				Total	
	Normal		Early		Duty/Non-duty		Duty		Non-duty		Participants	Benefits Payment
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount		
2022	10,144	\$ 165,022,785	2,701	\$ 26,212,874	256	\$ 1,974,642	17	\$ 235,826	131	\$ 793,436	13,249	\$ 194,239,563
2021	9,769	159,199,384	2,647	25,458,837	237	1,938,134	18	183,396	141	880,268	12,812	187,660,019
2020	9,487	153,486,361	2,600	25,118,981	230	1,903,177	18	178,054	147	900,576	12,482	181,587,149
2019	9,188	149,649,778	2,527	24,865,264	220	1,828,195	18	173,351	151	905,720	12,104	177,422,308
2018	7,572	133,158,976	3,769	37,084,034	216	1,733,802	17	165,189	154	910,459	11,728	173,052,460
2017	6,008	116,586,070	4,963	49,450,743	204	1,675,274	17	160,378	158	911,253	11,350	168,783,718
2016	5,803	114,503,622	4,793	48,567,459	191	1,516,843	17	212,462	161	921,404	10,965	165,721,790
2015	5,557	112,009,606	4,590	47,509,606	181	1,401,710	20	272,296	165	952,482	10,513	162,145,700
2014	5,354	111,429,145	4,422	47,263,400	176	1,357,852	20	272,888	170	953,108	10,142	161,276,393
2013	5,124	110,634,206	4,232	46,926,222	169	1,308,058	21	265,153	173	964,489	9,719	160,098,128

**BENEFIT REFUNDS BY TYPE**

Last 10 Years

Fiscal Year	Separation		Death		Total	
	No.	Amount	No.	Amount	No.	Amount
2022	330	\$ 3,231,180	38	\$ 1,184,753	368	\$ 4,415,933
2021	247	2,399,929	51	1,206,034	298	3,605,963
2020	373	3,738,364	42	660,981	415	4,399,345
2019	432	4,094,919	32	407,805	464	4,502,724
2018	427	4,089,420	39	578,415	466	4,667,835
2017	465	4,392,979	16	208,886	481	4,601,865
2016	521	4,271,678	27	354,379	548	4,626,057
2015	718	5,300,442	22	396,869	740	5,697,311
2014	727	5,164,862	40	608,097	767	5,772,959
2013	634	4,081,157	19	338,649	653	4,419,806

## RETIRED MEMBERS BY TYPE OF BENEFIT

(As of December 31, 2021)

AMOUNT OF MONTHLY BENEFIT	NUMBER OF RETIRED MEMBERS	TYPE OF RETIREMENT*					OPTION SELECTED**					
		1	2	3	4	5	BASIC BENEFIT	1	2	3	4	5
\$ 1–\$ 250	1,944	1,140	754	27	18	5	1,448	138	2	50	49	257
251–500	2,751	1,774	858	29	84	6	2,056	290	3	123	54	225
501–750	1,549	1,148	343	18	36	4	1,140	165	3	65	41	135
751–1,000	1,013	835	157	12	9	—	666	92	2	56	15	182
1,001–1,250	1,078	937	131	8	2	—	643	69	12	72	10	272
1,251–1,500	1,061	945	108	6	2	—	712	56	6	46	15	226
1,501–1,750	745	667	70	5	3	—	491	44	6	46	6	152
1,751–2,000	565	525	38	1	1	—	360	33	3	37	8	124
Over 2,000	2,632	2,338	286	5	—	3	1,668	151	15	179	27	592
<b>TOTAL</b>	<b>13,338</b>	<b>10,309</b>	<b>2,745</b>	<b>111</b>	<b>155</b>	<b>18</b>	<b>9,184</b>	<b>1,038</b>	<b>52</b>	<b>674</b>	<b>225</b>	<b>2,165</b>

**\* TYPE OF RETIREMENT:**

- 1 Full Service
- 2 Reduced Service
- 3 Ordinary Death
- 4 Ordinary Disability
- 5 Service Connected Disability

**\*\* OPTION SELECTED:**

- Basic Benefit
- 1 Beneficiary receives 100% of member's reduced monthly benefit
- 2 Beneficiary receives 67% of member's reduced monthly benefit
- 3 Beneficiary receives 50% of member's reduced monthly benefit
- 4 Beneficiary receives a specified number of payments equal to 120 minus the number of payments the member has received.
- 5 Member receives partial lump sum and reduced monthly benefit

Options

- A Used to be 67% now 100%
- B 50%
- C 120 Payments
- D Lump Sum

Note: The source of information presented above is from the most recent actuarial valuation report.

## AVERAGE BENEFIT PAYMENTS BY YEARS OF SERVICE

RETIREMENT EFFECTIVE DATES	YEARS CREDITED SERVICE					
	5-10	10-15	15-20	20-25	25-30	30+
Period 1/1/17 to 12/31/17						
Avg Monthly Benefit	\$ 275.61	\$ 526.17	\$ 700.78	\$ 937.41	\$ 2,299.37	\$ 2,743.94
Avg Final Average Salary	4,749	5,461	5,940	6,913	7,778	8,328
No.of Retired Members	81	109	127	80	128	100
Period 1/1/18 to 12/31/18						
Avg Monthly Benefit	240	496	718	847	2,228	2,429
Avg Final Average Salary	4,595	5,505	6,068	6,606	7,649	8,131
No.of Retired Members	78	134	129	85	122	96
Period 1/1/19 to 12/31/19						
Avg Monthly Benefit	272	494	764	960	2,291	2,354
Avg Final Average Salary	4,886	5,435	6,261	6,742	7,773	8,194
No.of Retired Members	77	102	127	106	117	92
Period 1/1/20 to 12/31/20						
Avg Monthly Benefit	309	501	831	992	2,277	2,647
Avg Final Average Salary	5,247	5,412	6,615	7,099	8,110	8,311
No.of Retired Members	84	83	104	107	119	110
Period 1/1/21 to 12/31/21						
Avg Monthly Benefit	\$ 320.67	\$ 546.48	\$ 820.78	\$ 969.54	\$ 2,307.26	\$ 2,588.50
Avg Final Average Salary	5,728	5,754	6,475	6,785	7,974	8,351
No.of Retired Members	77	94	140	139	159	78

# AVERAGE COMPOSITE MONTHLY BENEFIT PAYMENTS FOR RETIREES

Last 10 Years

## BY TYPE OF BENEFIT BEING PAID

CALENDAR YEAR	Service Retirement	Reduced Service	Ordinary Disability
2021	\$ 1,404	\$ 819	\$ 644
2020	1,407	789	665
2019	1,421	782	614
2018	1,436	784	606
2017	1,462	788	594
2016	1,478	794	595
2015	1,523	807	579
2014	1,557	799	583
2013	1,626	815	575
2012	\$ 1,688	\$ 839	\$ 570

# RETIREES AND BENEFICIARIES CURRENT ANNUAL BENEFITS TABULATED BY ATTAINED AGES

(As of December 31, 2021)

Attained Ages	TOTAL	
	No.	Annual Amount
Under 40	3	\$ 21,584
40 - 44	3	9,767
45	3	10,403
46	—	—
47	2	13,775
48	2	36,360
49	1	2,845
50	3	37,921
51	11	344,484
52	10	204,685
53	12	403,524
54	24	784,803
55	61	2,053,787
56	78	2,362,393
57	116	3,216,736
58	139	3,718,726
59	152	4,384,602
60	215	4,603,261
61	271	5,467,969
62	296	6,105,958
63	364	7,933,785
64	449	9,824,521
65	501	10,052,962
66	513	6,015,586
67	612	5,919,364
68	597	5,726,264
69	642	6,328,966
70 - 74	3,474	38,441,114
75 - 79	2,458	31,931,946
80 & Up	2,326	34,818,186
<b>GRAND TOTAL</b>	<b>13,338</b>	<b>\$ 190,776,277</b>

Note: This source of information presented is from the most recent actuarial valuation report.

## INACTIVE VESTED MEMBERS DEFERRED BENEFITS BY ATTAINED AGES

(As of December 31, 2021)

ATTAINED AGES	No.	Annual Amount
27	1	\$ 2,419
28	23	56,723
29	42	104,719
30	68	189,072
31	122	366,634
32	150	465,292
33	155	491,163
34	180	584,353
35	206	694,508
36	189	675,553
37	201	751,206
38	237	935,650
39	225	896,884
40	252	962,468
41	244	1,052,501
42	243	1,046,945
43	231	943,612
44	196	760,479
45	189	770,408
46	179	718,465
47	183	648,952
48	182	699,709
49	159	579,204
50	211	853,777
51	195	689,094
52	169	655,090
53	159	708,679
54	162	754,713
55	142	692,891
56	135	630,452
57	127	524,296
58	119	580,299
59	132	643,746
60	90	396,211
61	81	393,793
62	45	264,379
63	36	162,669
64	36	169,226
65 & Over	87	411,293
<b>GRAND TOTAL</b>	<b>5,783</b>	<b>\$ 22,927,527</b>

Note: The source of this information is from the most recent actuarial valuation report. It does not include 6 inactive vested members.

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Financial Specialist Services  
Search EAP on [fcps.edu](http://fcps.edu)  
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### VRS

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### SOCIAL SECURITY

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