



ERFC

CONTINUED SUPPORT WITH RESILIENCE & INNOVATION

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2020
 THE EDUCATIONAL EMPLOYEES' SUPPLEMENTARY RETIREMENT SYSTEM OF FAIRFAX COUNTY
 A COMPONENT UNIT OF FAIRFAX COUNTY PUBLIC SCHOOLS | FAIRFAX, VIRGINIA



ACHIEVEMENTS

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 Comprehensive Annual Financial Report for the fiscal year ended June 30, 2019. This was the 23rd 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 Comprehensive Annual Financial Report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Educational Employees' Supplementary Retirement
System of Fairfax County
Virginia**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

Christopher P. Morill

Executive Director/CEO

2020 ERFC

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2020
The Educational Employees' Supplementary
Retirement System of Fairfax County

A Component Unit of
Fairfax County Public Schools, Fairfax, Virginia

BOARD OF TRUSTEES

Kimberly Adams, Chairperson and Trustee
Kathie Pfeffer-Hahn, Vice Chairperson and Trustee
Leigh Burden, Treasurer and Trustee
Michael Burke, Trustee
Marty K. Smith, Trustee
Eric Eichelberger, Trustee
Helen Nixon, Trustee

ADMINISTRATION

Eliazer Martinez, Executive Director and CIO
Michael Lunter, Finance Coordinator

PREPARED BY

ERFC Staff
8001 Forbes Place, Suite 300
Springfield, VA 22151-2205

DESIGNED BY

Fairfax County Public Schools
Information Technology
Multimedia Design

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.

TABLE OF CONTENTS

GFOA Certificate of Achievement <i>inside front cover</i>	
Public Pension Standards Award	iv
INTRODUCTION SECTION (UNAUDITED)	
Letter of Transmittal	2
Letter from the Chairperson	6
Board of Trustees	8
Administrative Organization	9
Professional Services.....	10
FINANCIAL SECTION	
Independent Auditors' Report.....	12
Management Discussion and Analysis (Unaudited)	14
FINANCIAL STATEMENTS:	
Statement of Fiduciary Net Position.....	17
Statement of Changes in Fiduciary Net Position	18
Notes to the Financial Statements	19
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED):	
Schedule of Contributions	32
Schedule of Changes in Net Pension Liability and Related Ratios	33
Schedule of Money-Weighted Rate of Return	34
OTHER SUPPLEMENTARY INFORMATION (UNAUDITED):	
Summary of Significant Changes to the Pension System	35
Schedule of Administrative Expenses	36
Schedule of Investment Expenses.....	37
Schedule of Professional Service Fees	38
INVESTMENT SECTION (UNAUDITED)	
Consultant Report on Investment Activity	40
Strategic Review and Investment Policy	45
Investment Managers	46
Asset Structure	47
Investment Results	48
Schedules of Ten Largest Equity & Fixed Income Holdings.....	51
Schedule of Brokerage Commissions.....	52
Investment Summary	53
Schedule of Investment Management Fees	54
ACTUARIAL SECTION (UNAUDITED)	
Actuary's Certification Letter	56
Summary of Actuarial Assumptions and Methods.....	59
Employer Schedule of Funding Progress..	64
Summary of Member Data.....	65
Short-Term Solvency Test.....	71
Analysis of Financial Experience	72
Summary of Benefit Provisions	73
Contribution Rates.....	78
Summary of Plan Changes.....	79
STATISTICAL SECTION (UNAUDITED)	
Net Position	82
Changes in Net Position.....	83
Assets and Liabilities Comparative Statement	84
Benefit Deductions from Net Position by Type.....	85
Benefit Refunds by Type	86
Retired Members by Type of Benefit	87
Average Benefit Payments by Years of Service.....	88
Average Composite Monthly Benefit Payments for Retirees.....	89
Retirees and Beneficiaries Current Annual Benefits Tabulated by Attained Ages	90
Inactive Vested Members Deferred Benefits by Attained Ages.....	91

ACHIEVEMENTS

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.



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2020***

Presented to

***The Educational Employees' Supplementary
Retirement System of Fairfax County***

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

Presented by the Public Pension Coordinating Council, a confederation of

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

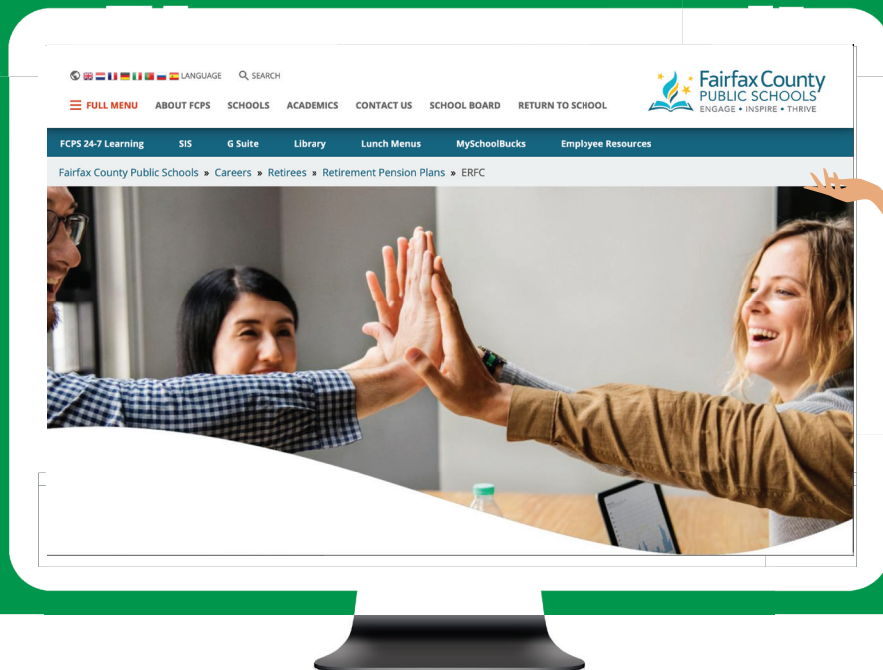
A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle
Program Administrator

ERFC'S WEBSITE HAS A NEW LOOK!
IT'S USER-FRIENDLY, EASY TO NAVIGATE
AND FEATURES INDIVIDUAL PLAN
INFORMATION. WHETHER YOU
ARE A RETIRED OR CURRENT
EMPLOYEE, YOU WILL FIND EXACTLY
WHAT YOU'RE LOOKING FOR TO
MANAGE, PLAN AND UNDERSTAND
YOUR FCPS RETIREMENT.

UNAUDITED

INTRODUCTION



LETTER OF TRANSMITTAL



8001 Forbes Place, Suite 300
Springfield, VA 22151

December 1, 2020

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 Comprehensive Annual Financial Report (CAFR) for the Educational Employees' Supplementary Retirement System of Fairfax County ("ERFC" or "System") for the fiscal year ended June 30, 2020. The 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 CAFR 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 independent auditor's report.

Plan History

The 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, the VRS introduced major increases to the state's early retirement benefits, which required the ERFC to thoroughly re-examine the complementary structure of its supplemental benefits plan. Effective July 1, 1988, the 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

LETTER OF TRANSMITTAL

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 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.

Administration Updates

The ERFC staff continued to increase efforts to implement process enhancements that will result in improved efficiencies, cost savings and member service. ERFC concluded work with Linea Solutions—a firm specializing in change management, business process reengineering, organizational restructuring, and continuous process improvement for pension organizations—identifying over \$2 million in operational improvements in the process. As part of the implementation process ERFC contracted Orion Development Group—a pioneer in strategic process management that helps clients in all industries create distinctive process capabilities and leverage those capabilities for competitive advantage.

Communication activities continued to increase awareness of ERFC. Prior to transitioning to remote operations due to COVID, staff conducted five retirement information sessions and visited seven schools and administrative centers. The ERFC Ambassador Program—composed of member volunteers who distribute and guide other members to appropriate ERFC resources—increased 6.3% to 185 ambassadors located at 128 FCPS worksites. Redesign of the ERFC website was also completed, improving navigability and member interaction.

Efforts to remain in close communication with ERFC members during remote operations resulted in successful virtual project implementations including, the development of a COVID-19 information page on the ERFC website, virtual plan information webinars with live Q & A, readily accessible plan information videos, and the updating and simplification of plan brochures.

ERFC continued to promote *ERFCDirect*, and over 28,000 active and retired members now use the online service, up from 27,000 a year ago.

Strategic Plan and Operational Updates

Despite overwhelming challenges, brought on by the COVID-19 pandemic, the ERFC staff successfully continued to move through the 2018-2021 Strategic Plan. A significant RFP for a discretionary private markets consultant was completed, which will ultimately lead to approximately \$23.4 million in Net Present Value (NPV) savings through restructuring of the private markets program.

LETTER OF TRANSMITTAL

Plan Financial Condition

In spite of the unprecedented challenges as a result of the COVID-19 global pandemic, the ERFC Fund earned a 4.7% net of fees return on investments in fiscal year 2020—placing the fund in the top 8th percentile of public pension funds within the Investment Metrics Public Plan Universe >\$1B in assets. For the fiscal year, ERFC outperformed its policy index by 0.9%, driven by outperformance in international and emerging market equities, and private market investments.

ERFC's independent actuary reported that the System's funding ratio increased slightly from 74.0% to 74.5% for the valuation period ending December 31, 2019. This increase is due to favorable investment performance in 2019 and favorable demographic experience. The recommended employer contribution rate increased to 6.44% of payroll, from 6.26%, for fiscal year 2020.

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

The ERFC's return of 4.7% net of fees for FY 2020 outperformed the benchmark index return of 3.8%, and the Investment Metrics Public Plan Universe >\$1B in assets universe for the fiscal year with the median fund returning 1.5%. 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 2020. The Fund's longer-term performance remained strong as well; the 10-year return of 7.7% exceeded the policy index return of 7.5% and exceeded the Fund's long-term target return of 7.25%.

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, Certified Public Accountants, Richmond, Virginia, to audit the System's financial statements.

Awards

The System proudly announces that the Government Finance Officers Association of the United States and Canada (GFOA) awarded ERFC the **Certificate of Achievement for Excellence in Financial Reporting** for its FY 2019 Comprehensive Annual Financial Report (CAFR). This is the 23rd consecutive year ERFC has earned the award. The GFOA certification remains valid for a period of one year and requires, at minimum, that each CAFR satisfy both generally accepted accounting principles and legal requirements. The Public Pension Coordinating Council also honored ERFC recently, granting the System the

LETTER OF TRANSMITTAL

Public Pension Standards' 2020 Award. ERFC earned the award in recognition for meeting or exceeding professional standards for plan design and administration, as set forth in the Public Pension Standards.

Conclusion

This report is produced through the combined efforts of the 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. We hope that all recipients find the report informative and useful.

Respectfully submitted,



Eli Martinez
Executive Director
and CIO



Michael Lunter
Finance Coordinator

LETTER FROM THE CHAIRPERSON



8001 Forbes Place, Suite 300
Springfield, VA 22151

December 1, 2020

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 Comprehensive Annual Financial Report for the fiscal year ending June 30, 2020. The ERFC Board and staff continues to commit itself to its 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 the ERFC.

ERFC's defined benefit plan provides a valuable supplement to FCPS' employee members. The 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 Fairfax County Public Schools.

Prior to the fiscal year-end, Kathie Pfeffer-Hahn was re-elected to serve as a Trustee for a second three-year term and the School Board reappointed Marty Smith, FCPS' Chief Operating Officer, Leigh Burden, Assistant Superintendent, FCPS Department of Financial Services, and Michael Burke, the individual Trustee, to the Board. The Board looks forward to working together to provide professional and personalized service to its members and beneficiaries.

During the year, the ERFC Board and staff completed action items included in the 2018-2021 Strategic Plan and will continue to support and guide the ERFC staff's development of sustainability, marketing, messaging and education initiatives.

ERFC returned 4.7 percent net of fees for the 2020 fiscal year period, and despite the onset of an unprecedented global pandemic, it exceeded its policy index return of 3.77 percent and places ERFC in the top decile of performance when compared to its peers. Although this return is below the assumed actuarial return rate of 7.25 percent, the 10-year return of 7.68 percent continues to exceed the target rate of return. The Board recognizes that annual returns will not always exceed the target return rate but remains focused on long-term performance.

The Board will continue to analyze investment strategies in conjunction with the ERFC staff and its investment advisors to ensure a well-diversified asset mix with a risk-balanced approach. The Board will focus on managing the plan assets with the disciplined oversight required to meet the System's long-term investment goals.

LETTER FROM THE CHAIRPERSON

The School Board increased FCPS' employer contribution rate from 6.26 percent of covered payroll for the 2019 fiscal year to 6.44 percent for the 2020 fiscal year. The combined employee and employer contributions provide significant revenue for the ERFC. However, it is the System's investment earnings that provide the essential factor necessary to fulfill the guarantee of defined member benefits. The Board believes ERFC will continue to prosper by implementing prudent diversified investment strategies designed to spread pension costs over the full span of the employees' careers, while maintaining a solid financial balance during both strong and weak investment periods.

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

Yours sincerely,



Kimberly Adams
FY 2020 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. 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/Trustee
Elected Member



Kathie Pfeffer-Hahn
Vice Chairperson/
Trustee
Elected Member



Leigh Burden
Treasurer/Trustee
Appointed Member



Michael Burke
Individual Trustee
Appointed Member



Marty K. Smith
Trustee
Appointed Member

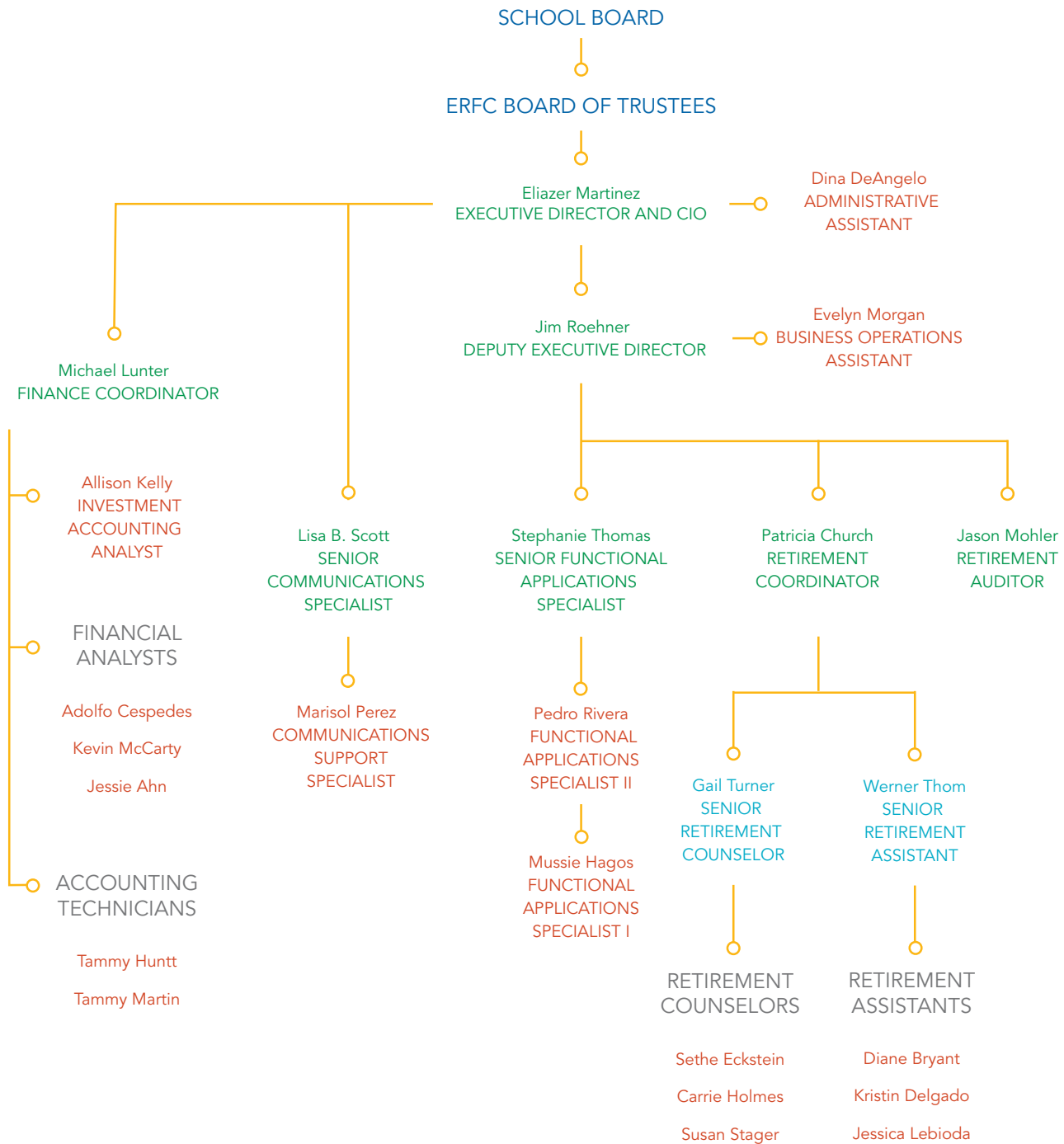


Eric Eichelberger
Trustee
Elected Member



Helen Nixon
Trustee
Appointed Member

ERFC ADMINISTRATIVE ORGANIZATION



PROFESSIONAL SERVICES

INVESTMENT MANAGERS

Acadian Asset Management
 Audax Management Company, LLC
 Bridgewater Associates, Inc.
 Causeway Capital Management, LLC
 CenterSquare Investment Management
 Cramer Rosenthal & McGlynn
 Davidson Kempner Capital Management, LP
 Doubleline
 Fidelity
 Francisco Partners
 Glouston Capital Partners
 Grosvenor Institutional Partners, LP
 Harbourvest Partners, LLC
 JP Morgan Asset Management
 LakestarLandmark Partners
 Lazard Asset Management
 Lexington Partners
 Lightspeed Venture Partners
 Loomis-Sayles & Company
 Mellon Capital Management Corp.
 Mondrian Investment Group, Inc.
 Newstone Capital Partners, LLC
 Pacific Investment Management Company
 PGIM Real Estate
 Private Advisors
 Schroders
 Searchlight Capital Partners
 Torchlight Investors
 UBS Realty Investors, LLC
 Wellington Management
 Westfield Capital Management
 William Blair and Company, LLC

OTHER SERVICE PROVIDERS

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

The Schedule of Brokerage Commissions can be found on page 52.

The Schedule of Investment Management Fees can be found on page 54.

ERFC TAKES A PRUDENT
INVESTMENT APPROACH
DEDICATED TO THE SOLE
INTEREST OF PLAN PARTICIPANTS
AND BENEFICIARIES. EVEN IF THE
MARKET TAKES A DOWNTURN,
YOUR PENSION INCOME IS
GUARANTEED TO REMAIN
UNWAVERING.



REPORT OF INDEPENDENT AUDITOR



Report of Independent Auditor

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

Report on the Financial Statements

We have audited the accompanying basic financial statements of the Educational Employees' Supplemental Retirement System of Fairfax County (the "System"), a pension trust fund of the County of Fairfax, Virginia, as of and for the year ended June 30, 2020, and the related notes to the financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System, as of June 30, 2020, and the changes in fiduciary net position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

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

cbh.com

REPORT OF INDEPENDENT AUDITOR

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and pension related required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The Introduction Section, Other Supplementary Information, Investment Section, Actuarial Section, and Statistical Section, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Other Supplementary 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. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Other Supplementary Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introduction, Investment, Actuarial, and Statistical Sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 13, 2020, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to solely describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.



Tysons Corner, Virginia
November 13, 2020

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 over-view of the financial activities for the fiscal year ended June 30, 2020. 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 2020 the net-of-fees return on ERFC's assets was 4.71 percent¹. This resulted in a total net position value of \$2,593 billion, which reflects an increase of \$71.9 million over fiscal year 2019's year end total (as reflected in the accompanying chart). Additional detail on this net increase in Fiduciary Net Position is outlined in the Summary of Changes in Fiduciary Net Position table contained within this Financial Section. As shown, it is comprised of four major components. They include \$108.5 million in investment gains and \$153.8 million in employee and employer contributions. The net addition is offset by \$181.6 million in retiree benefit payments and \$8.8 million in member refunds and administrative expenses.

ERFC's time-weighted 4.71 percent net-of-fees return exceeded the policy benchmark return of 3.8 percent³. Three, five, and ten year returns are 5.95 percent, 5.79 percent, and 7.68 percent, respectively.² 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

ERFC NET POSITION (\$ IN MILLIONS)

FISCAL YEAR	NET POSITION	NET CHANGE	
		DOLLARS	PERCENT
2016	\$ 2,107.6	(72.1)	(3.3)
2017	2,304.3	196.7	9.3
2018	2,446.3	142.0	6.2
2019	2,521.4	75.2	3.1
2020	2,593.3	71.9	2.9

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.

At December 31, 2019, the actuarial value of assets totaled \$2.583 billion while liabilities totaled \$3.468 billion. This resulted in a funding ratio of 74.5 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.

1 Time-weighted rate of return as calculated by BNY Mellon.

2 Time-weighted rates of return as calculated by Segal Marco Advisors.

3 16.5% Russell 1000, 6% Russell 2000, 14% MSCI ACWI ex USA, 3% MSCI Emerging Markets, 5% MSCI World, 5% Citi WGBI, 5% BBgBarc US TIPS TR, 3% JPM GBI-EM Global Diversified TR, 8% NCREIF - ODCE NET, 12% BBgBarc US Aggregate TR, 4% BBgBarc US Credit TR, 4% BBgBarc US Credit Long TR, 5% HFRI Fund of Funds Composite Index, 3.5% Thomson One All US Private Equity Index, 6% BBgBarc Global Aggregate TR.

MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

In addition, detailed information regarding actuarial assumptions and methods can be found in the Actuarial Section of this report.

USING THIS ANNUAL REPORT

ERFC financial statements are comprised of the Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, and Notes to the Financial Statements. Also contained in the Financial Section is required supplementary information and other supplementary information, in addition to the basic financial statements.

The Statement of Fiduciary Net Position provides information on all of the System's 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 and accompanying notes, 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.

SUMMARY OF FIDUCIARY NET POSITION

	JUNE 30, 2020	JUNE 30, 2019	VARIANCE
ASSETS			
Total cash and investments	\$ 2,796,033,651	\$ 2,661,830,887	\$ 134,202,764
Total receivables	14,052,270	11,919,565	2,132,705
Other assets	33,468	43,010	(9,542)
TOTAL ASSETS	2,810,119,389	2,673,793,462	136,325,927
LIABILITIES			
Capital leases	8,782	12,455	(3,673)
Accounts payable	1,843,713	2,095,788	(252,075)
Securities purchased	88,500,826	6,606,218	81,894,608
Securities lending collateral	126,382,893	143,637,529	(17,254,636)
TOTAL LIABILITIES	216,736,214	152,351,990	64,384,224
NET POSITION RESTRICTED FOR PENSIONS	\$ 2,593,383,175	\$ 2,521,441,472	\$ 71,941,703

MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

FINANCIAL STATEMENTS

As indicated in the Summary of Fiduciary Net Position, the System's net position value increased \$71.9 million or 2.9 percent in fiscal year 2020. The changes in assets and liabilities underlying this change consist of an increase of \$134.2 million in the value of investments, an increase in receivables of \$2.1 million, a \$81.6 million increase in the value of payables and a decrease of \$17.3 million in securities lending collateral liabilities.

As reflected in the Summary of Changes in Fiduciary Net Position (below), the net change is due to \$153.8 million in contributions and \$108.5 million in net investment gains, which is offset by \$181.6 million in benefits, \$4.4 million in refunds and \$4.4 million in administrative expenses.

Also presented in the Summary of Changes in Fiduciary Net Position, additional information is provided regarding the differences between the fiscal year 2019 and 2020 results. These differing results are due mainly to a decrease in investment income of \$9.3 million and an increase in contributions of \$10.2 million, offset by an increase in benefits of \$4.2 million.

REQUESTS FOR INFORMATION

This financial information is intended to provide a general overview of the System's 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.

SUMMARY OF CHANGES IN FIDUCIARY NET POSITION

	JUNE 30, 2020	JUNE 30, 2019	VARIANCE
ADDITIONS			
Contributions			
Employer	\$ 104,741,255	\$ 96,982,911	\$ 7,758,344
Member	49,095,601	46,645,396	2,450,205
Net investment income	108,472,534	117,727,500	(9,254,966)
TOTAL ADDITIONS	262,309,390	261,355,807	953,583
DEDUCTIONS			
Benefits	181,587,150	177,422,308	4,164,842
Refunds	4,399,346	4,509,765	(110,419)
Admin. Expenses	4,381,191	4,262,159	119,032
TOTAL DEDUCTIONS	190,367,687	186,194,232	4,173,455
NET INCREASE IN NET POSITION RESTRICTED FOR PENSIONS	\$ 71,941,703	\$ 75,161,575	\$ (3,219,872)

STATEMENT OF FIDUCIARY NET POSITION

(As of June 30, 2020)

ASSETS**CASH AND SHORT-TERM INVESTMENTS**

Cash	\$ 1,207,318
Cash with fiscal agent	438,716
Cash collateral for securities on loan	126,382,893
Short-term investments	192,753,780

TOTAL CASH AND SHORT-TERM INVESTMENTS 320,782,707**RECEIVABLES**

Interest and dividends	5,982,466
Securities sold	8,069,804

TOTAL RECEIVABLES 14,052,270**INVESTMENTS AT FAIR VALUE**

Stocks	405,308,672
Fixed Income	
Asset and Mortgage Backed	114,457,007
Corporate Bonds	303,801,747
International Bonds	26,323,671
Convertible Securities	3,958,329
Municipal Bonds	542,731
U.S. Government Obligations	127,212,756
Preferred Securities	126,688
Real Estate	175,740,685
Global Asset Allocation	209,334,379
Better Beta	138,261,722
Hedge Fund of Funds	94,317,040
Private Equity Funds	134,084,397
Commingled Fixed Income Funds	100,776,981
Commingled Equity Funds	641,004,139

TOTAL INVESTMENTS 2,475,250,944**PREPAID**

Prepaid expenses	8,433
------------------	-------

OTHER ASSETS

Furniture and equipment	149,846
Accumulated depreciation	(124,811)

TOTAL OTHER ASSETS 25,035**TOTAL ASSETS 2,810,119,389****LIABILITIES**

Capital leases	8,782
Accounts payable	1,843,713
Securities purchased	88,500,826
Securities lending collateral	126,382,893

TOTAL LIABILITIES 216,736,214**NET POSITION RESTRICTED FOR PENSIONS \$ 2,593,383,175**

See accompanying Notes to the Financial Statements

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

(For the Fiscal Year Ending June 30, 2020)

ADDITIONS

Contributions	
Employer	\$ 104,741,255
Plan members	49,095,601

TOTAL CONTRIBUTIONS	153,836,856
----------------------------	--------------------

Investment income	
Net appreciation in fair value of investments	42,105,584
Interest and dividends	23,332,691
Real estate income	58,903,601

TOTAL INVESTMENT INCOME	124,341,876
--------------------------------	--------------------

Less investment expenses	
Investment management fees	15,203,004
Investment consulting fees	557,198
Investment custodial fees	289,202
Investment salaries	258,435

TOTAL INVESTMENT EXPENSES	16,307,839
----------------------------------	-------------------

Income from securities lending activities	
Securities lending income	1,968,244
Securities lending management fees	1,529,747

NET SECURITIES LENDING INCOME	438,497
--------------------------------------	----------------

NET INVESTMENT INCOME	108,472,534
------------------------------	--------------------

TOTAL ADDITIONS	262,309,390
------------------------	--------------------

DEDUCTIONS

Benefits	181,587,150
Refunds	4,399,346
Administrative expense	4,381,191

TOTAL DEDUCTIONS	190,367,687
-------------------------	--------------------

NET INCREASE	71,941,703
---------------------	-------------------

NET POSITION RESTRICTED FOR PENSIONS BEGINNING OF YEAR	2,521,441,472
---	----------------------

END OF YEAR	\$ 2,593,383,175
--------------------	-------------------------

See accompanying Notes to the Financial Statements

NOTES TO THE FINANCIAL STATEMENTS

(For The Fiscal Year Ending June 30, 2020)

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 another Fairfax County, Virginia (County) plan. As such, and 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*. 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 new 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.

At December 31, 2019, the date of the most recent actuarial valuation, the System's membership consisted of:

Retirees and beneficiaries currently receiving benefits	12,482
Terminated employees entitled to benefits but not yet receiving them	5,240
Active plan members	22,176
TOTAL	39,898

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,

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

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%. 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).

- 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) as a practical expedient are not classified in the fair value hierarchy.

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

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.

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

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.

Investments measured at fair value and investments measured at NAV are presented below and on the following page.

- **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®.

- **Commingled Global Equity Funds**

The fund in this category is an actively managed, multi-capitalization fund focused on attractively priced companies with strong and/or improving financial productivity. The fund invests in listed global equity securities located in both developed and emerging markets.

- **Commingled Emerging Markets Equity Funds**

The 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, continued on next page

INVESTMENTS MEASURED BY FAIR VALUE HIERARCHY LEVEL

	6/30/20	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	\$ 192,753,780	\$ 8,760,554	\$ 183,993,226	\$ -
Debt securities				
Asset and mortgage backed	114,457,007	-	114,457,007	-
Corporate bonds	303,801,747	-	299,185,259	4,616,488
International bonds	26,323,671	-	26,323,671	-
Convertible securities	3,958,329	439,103	3,519,226	-
Municipal bonds	542,731	-	542,731	-
US Government obligations	127,212,756	127,212,756	-	-
TOTAL DEBT SECURITIES	576,296,241	127,651,859	444,027,894	4,616,488
Equity investments				
Basic industries	66,759,340	66,759,340	-	-
Consumer services	142,843,923	142,843,923	-	-
Financial industries	68,734,719	68,734,719	-	-
REITS	7,551,799	7,551,799	-	-
Technology	111,966,999	111,966,999	-	-
Utilities	7,451,892	7,451,892	-	-
Preferred securities	126,688	126,688	-	-
TOTAL EQUITY INVESTMENTS	405,435,360	405,435,360	-	-
TOTAL INVESTMENT AND SHORT-TERM SECURITIES MEASURED BY FAIR VALUE HIERARCHY LEVEL	\$ 1,174,485,381	\$ 541,847,773	\$ 628,021,120	\$ 4,616,488

NOTES TO THE FINANCIAL STATEMENTS

- **Commingled Global Fixed Income Funds**
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 Funds**
This fund invests in fixed income securities of “emerging” or developing countries to achieve high current income and long-term capital growth.
- **Private Equity 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, 2020, 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.

- **Commingled Global Asset Allocation Funds**
This type consists of funds with an unconstrained, non-benchmark oriented investment approach that invests in actively managed mutual funds including developed and emerging bonds and stocks, real estate, commodities, and absolute-return oriented strategies. The objective of this strategy is to provide maximum real return with preservation of capital.
- **Commingled Better Beta Funds**
This fund invests in a broad mix of asset classes including, but not limited to, currencies, fixed income, inflation linked bonds, equities and commodity markets. The objective is to provide attractive returns in any type of economic environment.

Notes, continued on next page

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

	6/30/2020	UNFUNDED COMMITMENTS	REDEMPTION FREQUENCY	REDEMPTION NOTICE PERIOD
Equity investments				
Commingled large cap equity funds	\$ 403,207,676	\$ -	Daily	None
Commingled global equity fund	99,700,000	-	Daily	None
Commingled emerging markets equity funds	138,096,463	-	Daily	3 days
TOTAL EQUITY INVESTMENTS MEASURED AT THE NAV	641,004,139	-		
Fixed income investments				
Commingled global fixed income fund	13,523,137	-	Daily	None
Commingled emerging markets debt funds	87,253,844	-	Monthly	30 days
TOTAL FIXED INCOME INVESTMENTS MEASURED AT THE NAV	100,776,981	-		
Private equity - private equity partnership funds	134,084,397	170,527,494	Not eligible	N/A
Global asset allocation - commingled GAA funds	209,334,379	-	Daily, monthly	1-30 days
Better beta - commingled better beta funds	138,261,722	-	Monthly	5 days
Real estate - commingled real estate equity funds	162,476,018	-	Daily, quarterly	1-90 days
Real estate - private real estate fund	13,264,667	23,310,857	Not eligible	N/A
Opportunistic - commingled multi-asset fund	94,317,040	30,896,468	Monthly	30 days
TOTAL INVESTMENTS MEASURED AT THE NAV	\$1,493,519,343	\$ 224,734,819		
TOTAL INVESTMENTS AND SHORT-TERM SECURITIES	\$2,668,004,724			

NOTES TO THE FINANCIAL STATEMENTS

- Commingled Real Estate Equity Funds**
 One of the funds in this category actively manages a core portfolio of U.S. equity real estate investments to maximize income. The second fund in this category seeks to provide a moderate level of current income and high residual property appreciation by investing in a balanced mix of stabilized value-added properties with appreciation potential. The third fund in this category invests primarily in U.S. well-leased retail, warehouse, storage, and residential properties with a focus on income.
- Private Real Estate**
 This fund is a limited partnership that makes 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.

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, 2020, the cash balance of \$1,207,318 represents funds that could not be invested in the County's enhanced cash fund until July 1, 2020.

The bank balance of the County's public deposits was either insured by the Federal Deposit Insurance Corporation or through the State Treasury Board pursuant to the provisions of the Security for Public Deposit Act. As of June 30, 2020, cash with the fiscal agent totaled \$438,716. 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.

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 6.44 percent for fiscal year 2020. 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, 2017 valuation recommended that the contribution rate for the two-year period beginning July 1, 2019 to June 30, 2021 be increased from 6.26 to 6.44 percent.

Total Pension Liability	\$3,543,956,246
Plan Fiduciary Net Position	2,593,383,175
Net Pension Liability	\$ 950,573,071
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	73.18 %

3. NET PENSION LIABILITY DISCLOSURES

The components of ERFC's net pension liability at June 30, 2020 were as follows:

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2019, 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.

Single Discount Rate

A single discount rate of 7.25% 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 7.25%.

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

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 actuarially 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 during the period January 1, 2010 to December 31, 2014. Based on the analysis of expected investment return, asset allocation and relevant Actuarial Standards of Practice, the rate was lowered to 7.25%.

Best estimates of arithmetic real rates of return as of the measurement date are summarized

in the table on the following page. Segal Marco Advisors supplied the information in the table. The investment consultant's inflation expectation is 2.0%.

Pension Liability Sensitivity

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the table on the following page presents the plan's net pension liability, calculated using a single discount rate of 7.25% 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 (6.25%) or 1-percentage-point higher (8.25%):

Sensitivity results at 6.25% interest were based upon computer runs. Results at 8.25% were based upon the 6.25% results and estimation techniques.

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.

Notes, continued on next page

METHODS AND ASSUMPTIONS USED TO DETERMINE FY 2020 TOTAL PENSION LIABILITY:

Actuarial Cost Method	Entry Age Normal
Remaining Amortization Period	20 years from July 1, 2020.
Asset Valuation Method	5-Year smoothed market; 25.0% corridor
IRS Limit Increases	2.50%
Salary Increases	3.25% to 9.05% including inflation
Investment Rate of Return	7.25%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	RP-2014 mortality healthy annuitant total data set table with fully generation two-dimensional sex distinct MP-2016 projection scale.

NOTES TO THE FINANCIAL STATEMENTS

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.

SENSITIVITY OF THE NET PENSION LIABILITY TO THE SINGLE DISCOUNT RATE ASSUMPTION

CURRENT SINGLE RATE:

1% Decrease	Assumption	1% Increase
6.25%	7.25%	8.25%
\$1,384,904,276	\$950,573,071	\$508,236,963

Investment Policy

The System's 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 below.

Rate of Return

For the year ended June 30, 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 4.49% percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the

Notes, continued on next page

ASSET ALLOCATION

ASSET CLASS	LONG-TERM EXPECTED REAL RATE OF RETURN
Domestic Equity (Large Cap)	6.8%
Domestic Equity (Small)	6.9%
International Equity	7.4%
Emerging International Equity	8.5%
Global Equity	7.3%
Emerging Market Debt	5.6%
US Fixed Income	3.0%
MACS	6.3%
Hedge Funds Opportunistic	7.0%
Real Estate (Core)	5.8%
Private Equity	10.2%
Private Credit	8.7%

NOTES TO THE FINANCIAL STATEMENTS

SECURITY CLASS	STRATEGIC TARGETS AS OF JUNE 30, 2020
Domestic Equity (Large Cap)	16.5 %
Domestic Equity (Small)	6.5
International Equity	14.0
Global Equity	4.0
Domestic Fixed Income	24.0
International Fixed Income	3.0
Multi-Asset Class	11.0
Absolute Return	3.0
Real Estate	9.0
Private Equity	5.0
Private Credit	4.0
TOTAL	100.0 %

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.

The System had indirect investments in derivatives through its ownership interest in the Better Beta fund, two Private Equity managers, two of the Real Estate managers, one of the fixed income managers, and one of the Global Asset Allocation managers. These portfolios are commingled

investments in which ERFC has a percentage ownership. Derivatives in these portfolios consisted of interest rate swaps, caps and collars, which reduce the effect of interest rate fluctuations by converting floating rate financing into fixed rate loans for real estate investments. Futures, because they are more liquid than over the counter derivatives, have among the lowest transaction costs available, carry minimal counterparty risk and are de facto currency hedged. Non Deliverable Forward's (NDFs) obtain exposure to a currency and its interest rate where the actual purchase of onshore debt is difficult. The interest rate exposure comes through the difference between the spot foreign exchange (F/X) rate and the forward F/X rate, and through investing the US dollar (USD) cash used as collateral in short dated US bonds. Forward commodity contracts hedge changes in cash flows due to market price fluctuations related to the expected purchase of a commodity. Currency forwards are used for hedging non-USD denominated physical instruments back to the base currency. Options are contracts that give the buyer the right, but not the obligation, to buy or sell an underlying asset at a specific price on or before a certain date. Credit Default Swaps (CDS) are contracts that offer guarantees against the non-payment of loans. Total return swaps are contracts which exchange the return from a financial asset. One party makes payments based on a set rate while the other makes payments based on a total return of an underlying asset. At June 30, 2020, exposure to interest rate swaps was \$(28,487,463), exposure to interest rate caps was \$4,322,124, exposure to interest rate collars was \$83,656, exposure to futures contracts was \$9,022,651, exposure to NDFs was \$295,520, exposure to forward commodity contracts was \$1,230,571 exposure to currency forward contracts was \$6,363,758, exposure to options was \$53,232, exposure to CDS was \$90,084 and exposure to total return swaps was \$35,612.

Regarding certain risk factors, GAAP requires that governments report their exposure to investment

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

risks in four categories: interest rate risk, credit risk, concentration of credit risk, and foreign currency risk.

Interest Rate Risk

All three of 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 the portfolio's benchmark. One of the managers is expected to be within 50 percent of the Bloomberg Barclays Capital Government/Credit Index.

Credit Risk

The System's policy on credit quality states that the average credit quality of the portfolio must be at least A. 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 lists the ratings of all of ERFC's fixed income investments, excluding pooled funds, according to Moody's Investment Services and Standard & Poor's.

Concentration of Credit Risk

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

At June 30, 2020, and as addressed previously, the System had three active fixed income managers. The portfolios had values of \$179.6 million, \$200.9 million and \$253.5 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 1.69 percent of that portfolio.

Notes, continued on next page

INVESTMENT COMBINED DURATION AS OF JUNE 30, 2020

INVESTMENT CATEGORY	AMOUNT	EFFECTIVE DURATION	PERCENTAGE OF FIXED
Asset and Mortgage Backed	\$ 114,457,007	0.38	19.9%
Corporate Bonds	303,801,747	4.16	52.6%
International Bonds	26,323,671	0.41	4.6%
Convertible Securities	3,958,329	0.03	0.7%
Municipal Bonds	542,731	0.02	0.1%
US Government	127,212,756	1.65	22.1%
TOTAL	\$ 576,296,241	6.65	100.00%

* Weighted Duration in years: 6.65

SHORT-TERM

Short-term Investment Funds	\$ 183,993,226	-	
US Treasury Bills	8,760,554	0.35	
TOTAL SHORT-TERM	\$ 192,753,780	0.35	

NOTES TO THE FINANCIAL STATEMENTS

CREDIT QUALITY SUMMARY

As of June 30, 2020

INVESTMENT TYPE	AMOUNT	RATING	PERCENT OF FIXED
Asset and Mortgage Backed	\$ 48,987,942	AAA	10.9%
	35,832,642	AA	8.0%
	7,994,055	A	1.8%
	7,844,452	BBB	1.7%
	340,838	BB	0.1%
	472,529	B	0.1%
	1,968,379	CCC	0.4%
	2,690,548	CC	0.6%
	8,325,622	Not Rated	1.9%
Corporate Bonds	970,758	AAA	0.2%
	14,640,490	AA	3.3%
	54,675,554	A	12.2%
	172,086,985	BBB	38.3%
	39,231,894	BB	8.7%
	20,297,627	B	4.5%
	1,839,429	CCC	0.4%
	12,536	C	0.0%
	838	Below C	0.0%
45,636	Not Rated	0.0%	
International Bonds	3,056,536	AA	0.7%
	4,275,268	A	1.0%
	7,482,774	BBB	1.7%
	10,043,523	BB	2.2%
	1,299,827	B	0.3%
	165,743	CCC	0.0%
Convertible Securities	1,185,960	BBB	0.3%
	1,093,869	BB	0.2%
	1,673,940	B	0.4%
	4,560	Below C	0.0%
Municipal Bonds	542,731	BBB	0.1%
TOTAL	\$ 449,083,485		100%

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

Deposits

At June 30, 2020, short-term investments with the custodial bank totaled \$192,753,780. 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.

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 the related liability of \$126,382,893 as of June 30, 2020, are shown on the Statement of Fiduciary Net Position. As of June 30, 2020, the fair value of securities on loan for cash collateral was \$123,266,349. 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.

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's investments and deposits are not exposed to custodial credit risk since they are held by the agent in the System's 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.

Notes, continued on next page

SUMMARY OF SECURITY LENDING JUNE 30, 2020

SECURITIES	FAIR VALUE	CASH COLLATERAL
Domestic corporate bonds	\$ 43,716,641	\$ 44,807,350
International bonds	104,453	109,680
Domestic stock	64,600,733	66,163,780
International Stock	3,824,755	4,055,820
US Government	11,019,767	11,246,263
TOTAL	\$ 123,266,349	\$ 126,382,893

NOTES TO THE FINANCIAL STATEMENTS

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's 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. The chart on the following page provides a summary of ERFC's foreign currency risk.

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. CONTINGENCIES

During 2020 an outbreak of a novel strain of coronavirus ("COVID-19") emerged globally. As a result of the spread of COVID-19, economic uncertainties have arisen that could negatively impact the Systems investment performance and operations for an indeterminable time period. Other financial impacts could occur that are unknown at this time.

Notes, continued on next page

INVESTMENTS WITH THE CUSTODIAN

AS OF JUNE 30, 2020, INCLUDED THE FOLLOWING:

INVESTMENT TYPE	FAIR VALUE
Stocks	\$ 405,308,672
Bonds and Mortgage Securities	449,083,485
US Government Obligations	127,212,756
Preferred Securities	126,688
Real Estate	175,740,685
Global Asset Allocation	209,334,379
Better Beta	138,261,722
Hedge Fund of Funds	94,317,040
Private Equity	134,084,397
Commingled Fixed Income Funds	100,776,981
Commingled Equity Funds	641,004,139
SUBTOTAL INVESTMENTS	2,475,250,944
Cash collateral for securities on loan	126,382,893
TOTAL	\$ 2,601,633,837

NOTES TO THE FINANCIAL STATEMENTS

FAIR VALUE OF FOREIGN CURRENCY RISK

As of June 30, 2020

CURRENCY	CASH & CASH EQUIVALENTS	EQUITY	PREFERRED SECURITIES	PRIVATE EQUITY	GRAND TOTAL
AUSTRALIAN DOLLAR	\$ 1,305	\$ 11,843,593	\$ -	-	\$ 11,844,898
BRAZIL REAL	-	24,967	65,120	-	90,087
CANADIAN DOLLAR	129,574	5,223,052	-	-	5,352,626
CHILEAN PESO	-	798,607	-	-	798,607
CHINESE YUAN RENMINBI	16,955	-	-	-	16,955
CZECH KORUNA	-	64,946	-	-	64,946
DANISH KRONE	95,781	12,887,957	-	-	12,983,738
EURO CURRENCY UNIT	509,928	41,889,153	12,009	7,166,819	49,577,909
HONG KONG DOLLAR	174,196	22,078,755	-	-	22,252,951
HUNGARIAN FORINT	-	-	-	-	-
INDONESIAN RUPIAH	2,312	-	-	-	2,312
ISRAELI SHEKEL	-	553,201	-	-	553,201
JAPANESE YEN	225,256	26,285,691	-	-	26,510,947
MALAYSIAN RINGGIT	24,282	31,045	-	-	55,327
MEXICAN PESO	1,297	144,412	-	-	145,709
NEW TAIWAN DOLLAR	148,324	11,068,231	-	-	11,216,555
NEW ZEALAND DOLLAR	-	120,981	-	-	120,981
NORWEGIAN KRONE	13,058	123,804	-	-	136,862
PHILIPPINES PESO	4,074	-	-	-	4,074
POLISH ZLOTY	4,310	294,070	-	-	298,380
POUND STERLING	45,025	21,035,450	-	-	21,080,475
QATARI RIYAL	3,438	89,730	-	-	93,168
RUSSIAN RUBLE (NEW)	4,378	-	-	-	4,378
SINGAPORE DOLLAR	7,737	419,684	-	-	427,421
SOUTH AFRICAN RAND	4,329	508,641	-	-	512,970
SOUTH KOREAN WON	37,869	8,655,393	49,559	-	8,742,821
SWEDISH KRONA	7,424	7,328,164	-	-	7,335,588
SWISS FRANC	312,874	20,323,933	-	-	20,636,807
THAILAND BAHT	637,700	630,969	-	-	1,268,669
TURKISH LIRA	705	4,620,815	-	-	4,621,520
UAE DIRHAM	-	42,702	-	-	42,702
GRAND TOTAL	\$2,412,131	\$197,087,946	\$126,688	\$7,166,819	\$206,793,584

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, 2017 valuation determined the contribution rates for fiscal years 2020 and 2021.

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 the following page 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, 2019. 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 end June 30, 2020. This schedule presents information that is currently available. Additional years will be added until 10-year trend information can be presented.

SCHEDULE OF CONTRIBUTIONS

(Last 10 Fiscal Years)

FY ENDING JUNE 30	ACTUARIALLY DETERMINED CONTRIBUTION	ACTUAL CONTRIBUTION	CONTRIBUTION DEFICIENCY (EXCESS)	COVERED PAYROLL	ACTUAL CONTRIBUTION AS A % OF COVERED PAYROLL
2011	\$ 47,118,111	\$ 47,118,111	\$ -	\$ 1,166,289,876	4.04%
2012	50,738,815	52,934,245	(2,195,430)	1,219,683,057	4.34%
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%

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 ERF Board's funding policy.

REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

	FY ENDING JUNE 30	2020	2019	2018	2017	2016	2015					
Total pension liability												
Service Cost	\$	92,719,549	\$	90,633,074	\$	88,599,697	\$	78,925,763	\$	77,760,915	\$	77,493,999
Interest on the Total Pension Liability		243,578,788		231,477,042		221,106,804		209,515,636		205,720,047		198,938,575
Changes of benefit terms		-		-		(1,038,793)		-		-		-
Difference between expected and actual experience of the Total Pension Liability		(12,696,483)		27,726,555		12,140,768		19,857,344		(11,011,883)		(17,051,192)
Changes of assumptions		-		-		-		23,334,195		45,752,095		-
Benefit payments, including refunds of employee contributions		(185,986,496)		(181,932,073)		(177,720,296)		(173,385,583)		(170,347,847)		(167,842,576)
Net Change in Total Pension Liability		137,615,358		167,904,598		144,126,973		157,208,562		147,873,327		91,538,806
Total Pension Liability - Beginning		3,406,340,888		3,238,436,290		3,094,309,317		2,937,100,755		2,789,227,428		2,697,688,622
Total Pension Liability - Ending (a)		3,543,956,246		3,406,340,888		\$ 3,238,436,290		\$3,094,309,317		\$2,937,100,755		\$2,789,227,428
Plan Fiduciary Net Position												
Contributions - Employer		104,741,255		96,982,911		\$ 91,704,877		\$ 80,094,538		\$ 76,599,695		\$ 74,324,396
Contributions - Member		49,095,601		46,645,396		44,169,100		43,062,632		41,383,642		39,982,963
Net Investment Income		108,472,534		117,727,500		188,145,489		250,981,777		(15,766,967)		32,083,908
Benefit Payments, including refunds of employee contributions		(185,986,496)		(181,932,073)		(177,720,296)		(173,385,583)		(170,347,847)		(167,842,576)
Pension Plan Administrative Expense		(4,381,191)		(4,262,159)		(4,300,927)		(4,059,408)		(4,004,882)		(3,751,825)
Net Change in Plan Fiduciary Net Position		71,941,703		75,161,575		141,998,243		196,693,956		(72,136,359)		(25,203,134)
Plan Fiduciary Net Position - Beginning		2,521,441,472		2,446,279,897		2,304,281,654		2,107,587,698		2,179,724,057		2,204,927,191
Plan Fiduciary Net Position - Ending (b)		2,593,383,175		2,521,441,472		2,446,279,897		2,304,281,654		2,107,587,698		2,179,724,057
Net Pension Liability - Ending (a) - (b)		950,573,071		\$ 884,899,416		792,156,393		790,027,663		829,513,057		609,503,371
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		73.18%		74.02%		75.54%		74.47%		71.76%		78.15%
Covered Payroll		\$ 1,626,417,003		\$ 1,549,247,780		\$ 1,469,629,439		\$ 1,430,259,607		\$ 1,374,735,094		\$ 1,366,029,848
Net Pension Liability as a Percentage of Covered Payroll		58.45%		57.12%		53.90%		55.24%		60.34%		44.62%

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

REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF MONEY-WEIGHTED RATE OF RETURN

FY ENDING JUNE 30	ANNUAL RETURN ¹
2014	15.91%
2015	1.49%
2016	(0.63)%
2017	12.14%
2018	8.29%
2019	4.88%
2020	4.49%

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

¹ Annual money-weighted rate of return, net of investment expenses.

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 and other significant changes to the pension system during the past fiscal years.

CONTRIBUTION RATES

As a percent of salary

Fiscal Year	Composite Employer	Employee	Total
June 2006	3.37%	4.00%	7.37%
2007	3.37	4.00	7.37
2008	3.37	4.00	7.37
2009	3.37	4.00	7.37
2010	3.20	4.00	7.20
2011	4.04	4.00	8.04
2012	4.34	4.00	8.34
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

- 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.
- 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.

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF ADMINISTRATIVE EXPENSES

Year Ended June 30, 2020

PERSONNEL SERVICES	
Salaries and wages	\$ 2,020,829
Retirement contributions	497,184
Insurance	320,402
Social security	165,884
TOTAL PERSONNEL SERVICES	3,004,299
PROFESSIONAL SERVICES	
Actuarial	102,750
Legal	279,207
Payroll disbursement	53,059
Plan automation support	149,822
Strategic planning	208,196
Audit	55,156
TOTAL PROFESSIONAL SERVICES	848,190
COMMUNICATIONS	
Printing	18,791
Postage	4,337
TOTAL COMMUNICATIONS	23,128
SUPPLIES	
Office supplies	11,993
Dues and subscriptions	7,794
TOTAL SUPPLIES	19,787
OTHER SERVICES AND CHARGES	
Board travel and staff development	55,629
Equipment	44,739
Building rent	308,543
Depreciation expense and asset disposal	25,579
Miscellaneous	51,297
TOTAL OTHER SERVICES AND CHARGES	485,787
TOTAL ADMINISTRATIVE EXPENSES	\$ 4,381,191

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF INVESTMENT EXPENSES

Year Ended June 30, 2020

INVESTMENT MANAGEMENT FEES

Fixed income managers	
DoubleLine Capital, L.P.	\$ 31,000
Fidelity Institutional Asset Management	48,300
Loomis-Sayles and Company, L.P.	830,547
J.P. Morgan Asset Management	686,196
Mondrian Investment Partners (US), Inc.	474,846
Equity managers	
AJO, L.P.	8,501
Cramer Rosenthal McGlynn, LLC	140,187
Epoch Investment Partners, Inc.	151,930
Lazard Asset Management	189,310
Mellon Capital Management Corporation	70,528
Schroder Investment Management North America, Ltd.	197,023
T. Rowe Price Associates, Inc.	63,676
Westfield Capital Management	353,594
International managers	
Acadian Asset Management, Inc.	711,790
Causeway Capital Management, LLC	379,205
William Blair & Company	1,386,174
Real Estate managers	
CenterSquare Investment Management	124,869
J.P. Morgan Asset Management	697,601
Landmark Real Estate Partners LP	400,000
Prudential Financial	544,016
UBS Realty Investors, LLC	312,195
Global Asset Allocation managers	
Pacific Investment Management Company	1,001,773
Wellington Management Company LLP	801,247
Better Beta	
Bridgewater Associates	635,146
Hedge fund of funds	
Grosvenor Capital Management, L.P.	2,496,876
Private equity	
Audax Mezzanine Fund III, L.P.	17,625
Davidson Kempner Long-Term Distressed Opportunities Fund V L.P.	63,328
FP Credit Partners Aggregator, L.P.	4,283
HarbourVest Partners IX - Buyout Fund L.P.	119,561
HarbourVest Partners IX - Credit Fund L.P.	59,711
HarbourVest Partners IX - Venture Fund L.P.	119,776
HarbourVest Partners X - Buyout Fund L.P.	291,376
HarbourVest Partners X - Venture Fund L.P.	124,876
HIPEP VII Partnership Fund L.P.	180,000
HIPEP VIII Partnership Fund L.P.	78,073
Lakestar Growth I L.P.	147,611
Lakestar III L.P.	147,611
Lexington Capital Partners VII L.P.	23,739
Lexington Capital Partners VIII L.P.	116,673
Lexington Capital Partners IX L.P.	163,469
Lightspeed Opportunity Fund, L.P.	30,579
Newstone Capital Partners II, L.P.	11,895
Nuveen TALF Opportunity Fund, L.P.	7,400
Glouston Private Equity Opportunities IV, L.P.	34,007
Glouston Private Equity Opportunities IV, L.P.	91,408
Private Advisors Buyout Fund IV, L.P.	58,727
Private Advisors Buyout Fund V, L.P.	72,900
Private Advisors Buyout Fund VIII, L.P.	180,000
Searchlight Capital III, L.P.	321,846

TOTAL INVESTMENT MANAGEMENT FEES **15,203,004**

Other investment service fees	
Custodial fees - Mellon Trust	289,202
Investment consultant fees - Meketa Investment Group	269,468
Investment consultant fees - Segal Marco Advisors	285,000
Foreign tax consulting - Pricewaterhousecoopers	2,730
Investment salaries	258,435

TOTAL OTHER INVESTMENT SERVICE FEES **1,104,835**

TOTAL INVESTMENT EXPENSES **\$ 16,307,839**

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF PROFESSIONAL SERVICE FEES

Year Ended June 30, 2020

SERVICE PROVIDER	NATURE OF SERVICE	AMOUNT
Aon Consulting, Inc.	Actuary	\$ 102,750
Levi, Ray & Shoup, Inc.	Plan automation support	149,822
Bredhoff & Kaiser, PLLC.	Legal counsel	180,135
Reed Smith, LLP	Legal counsel	99,072
ADP payroll services	Pension disbursements	53,059
Cherry Bekaert, LLP	Audit	55,156
Linea Solutions	Strategic Planning	208,196
TOTAL PROFESSIONAL SERVICE FEES		\$ 848,190

ERFC MEMBERS STAY
CONNECTED TO THEIR
PLAN INFORMATION
THROUGH LIVE WEBINARS
CONDUCTED BY ERFC
STAFF OPERATING FROM
REMOTE LOCATIONS.

UNAUDITED

INVESTMENT



CONSULTANT REPORT ON INVESTMENT ACTIVITY



333 West 34th Street New York, NY 10001-2402
 T 212.251.5000
 F 212.251.5490
 segalmarco.com

November 18, 2020

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 2020

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, 2020. This letter will also highlight any changes to the plan in fiscal 2020.

ERFC Asset Allocation

The Trustees establish an 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 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, index strategies for the majority of its U.S. large capitalization public equity allocation. For ERFC, diversification is very important to the long term planning.

During the 2020 fiscal year, the asset allocation implementation with changes within the equities, REITs, fixed income, multi asset class strategies ("MACs"), hedge funds, real estate and private equity/credit continued to progress.

As of the June 30 fiscal year-end, the Fund was in compliance with policy target ranges with 40.8% in equities, 6.7% in real estate, 27.7% in fixed income, 3.6% in hedge fund strategies, 5.6% in private equity/debt, 13.4% in multi asset class strategies, and 2.3% in cash. Over the long-term, which is the framework for considering the term structure of the Plans' liabilities, we expect the asset allocation will continue to meet the benefit needs while providing growth and preservation of principal.

Economic and Market Comment

Fiscal year 2020, ending June 30 was a case study in contrasts. The latter half of 2019, included improving economic conditions, high employment and a strong stock market. The first half of

Investment Solutions. Offices in the United States, Canada and Europe. Member of The Segal Group

GIRA Founding Member of the Global Investment Research Alliance

CONSULTANT REPORT ON INVESTMENT ACTIVITY

November 18, 2020

Page 2

2020, included a world paralyzed due to the COVID-19 pandemic, economic shutdowns, increasing unemployment and a stock market crash. This reversal stretched the resources and wits of citizens across the planet. Last year's letter mentioned the U.S. Gross Domestic Product ("GDP") growth of 2% at the end of fiscal year 2019. This small positive number which at that time seemed strong, now compares to the annualized -33% GDP at the end of fiscal year 2020. The U.S. unemployment rate was 11.1% at the end of June 2020 compared to 3.7% just a year prior. Many Americans went from positive expectations at the new year to trying times by April.

In late March 2020, the U.S. government attempted to limit the economic fallout from the virus and passed the Corona Virus Relief and Economic Security Act more commonly known as the CARES Act. This piece of legislation included \$2.2 trillion of stimulus, which is the largest in U.S. history. The CARES act included direct payments to individuals, loans to corporations and investments in health care. State and local governments received money to fight the virus as well. The goal of this legislation was to keep unemployed workers and closed companies afloat in a time of minimal economic activity while investing resources to thwart the COVID-19 pandemic. The United States Federal Reserve (the "Fed") ensured liquidity in capital markets by lowering interest rates quickly. In addition, the Fed started to purchase investment securities in the open market. These two actions helped corporations handle their debts and enabled access to capital markets in a challenging environment. One outcome was a dramatic improvement in pension funds' performance starting in June, the last month of many public plan's fiscal year.

Fund Summary of Investment Performance

On a net of fee basis, the Fund earned a return of 4.7% for the one-year period ending June 30, 2020 and ranked in the eighth percentile of the all public plans greater than \$1 billion within the Investment Metric's PARIS Universe. Over the same period, ERFC lagged its assumed actuarial return target of 7.25% by 2.55%. However, the Fund is not expected to outperform these benchmarks every year. The Fund's assets increased from \$2.5 billion as of fiscal year-end 2019 to approximately \$2.6 billion as of fiscal year-end 2020. Over the 5-year time period ending June 2020, the Fund has averaged a 5.8% annual return versus 5.7% for the Policy Benchmark. The 5-year performance ranks in the 38th percentile of public funds' peers. It is important to note that a pension fund is a long-term investment established to pay for participants' benefits.

During this most recent FY, the Fund's asset allocation hurt relative performance versus the Policy benchmark. Manager selection, that is the component contributed by the active management of the individual stock and bond purchases more than made up the for the allocation effect. The comparison is based on the FY return of +4.7%. The Policy Index¹ return, measuring if the Fund was all invested in passive, index funds, was lower at +3.8%.

The one-year performance was good. The diversified holdings of the ERFC Fund has been a contributor to its long-term success. The Fund is slightly underweighted to U.S. investments

¹ 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: 16.5% Russell 1000 / 6% Russell 2000 / 14% MSCI ACWI ex USA / 3% MSCI Emerging Markets / 5% MSCI World / 5% Citi WGBI / 5% BBgBarc US TIPS TR / 3% JPM GBI-EM Global Diversified TR / 8% NCREIF - ODCE NET / 12% BBg Barc US Aggregate TR / 4% BBg Barc US Credit TR / 4% BBg Barc US Credit Long TR / 5% HFRI Fund of Funds Composite Index / 3.5% Thomson One All US Private Equity Index / 6% BBgBarc Global Aggregate TR

CONSULTANT REPORT ON INVESTMENT ACTIVITY

November 18, 2020

Page 3

coupled with an overweight to international developed investments while still maintaining a diversified geographic and asset class structure. This diversification was an important factor in the positive performance during this most recent period of uncertainty. The Fund has investments across all the major public and private equity, fixed income and real estate capital markets. Within international developed and emerging markets, active management was able to add value versus the indices returns due to strong stock selection. Fixed income investments were the safe haven with government and investment grade corporate bonds outperforming high yield and bank loan securities. 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 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 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 2020, all equities took a steep dive, due to the global pandemic, before the rebound started late in the quarter. Calendar year to date through June 30, 2020, U.S. equities remained in negative territory. The U.S. stock market, as measured by the benchmark, Russell 3000 Index, returned 6.53% for the Fiscal Year 2020. Performance in the U.S. was fueled by uncertainty surrounding the COVID-19 pandemic. In the U.S., the poorest performing sectors were energy, financials and industrials. The largest technology companies did well and have led the recovery within the U.S. equity returns. In addition, technology, telecommunication services and consumer discretionary were among the top performing sectors.

Similarly, Non-U.S. developed equities were largely negative in the first half of 2020. The non-U.S. equity market, as measured by the benchmark, MSCI AC World ex USA Index, returned -4.8% for the Fiscal Year 2020. Austria, Belgium, United Kingdom and Norway have been bottom-returning countries thus far in 2020. Within non-U.S. developed countries, the tracking of the severity of COVID-19 cases during the first half of 2020 were the primary drivers of their economic and capital market performance. At the end of June, some of the Eurozone countries began to experience lower numbers of new cases compared to earlier in 2020. Japan has been further along in recovery in terms lower cases and deaths per capita. Similar to the United States, developed market countries in Europe and Asia have leaned on Central Banks for liquidity and spending to solidify capital markets and support the necessary large health care investments. Calendar year to date, Denmark and New Zealand were the only European countries with returns in positive territory.

Emerging markets stocks had a strong second quarter of 2020, but the returns were not enough to offset the large negative performance of the first quarter. The slowdown in developed markets caused a contagion in emerging market countries and companies especially any with energy or tourism based economies. As supply chains reopened and government spending surged, many companies were able to rebound with higher activity in the second quarter of 2020. Businesses linked to commodities continued to struggle as global energy use remains muted. The emerging

CONSULTANT REPORT ON INVESTMENT ACTIVITY

November 18, 2020

Page 4

market asset class as measured by the benchmark, MSCI Emerging Markets Index, returned -3.39% for the Fiscal Year 2020.

Domestic Equity Portfolio:

For the fiscal year 2020 period, the domestic equity composite held \$583 million (22% of the total Fund). The Total Domestic Equity Portfolio returned 4.1%, versus the Russell 3000 Index return of 6.5%, 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 2020 period, the international developed equity composite held \$240 million (9.2% of the total Fund). The total international equity portfolio returned 3.6%, outperforming the MSCI ACWI ex USA return of -4.8%. Both active managers outpaced the index.

Emerging Market Equity Portfolio:

The emerging market equity composite held \$138 million (5.3% of the total Fund). The total emerging market equity composite returned 14.5%, beating the MSCI Emerging Market Index return of -3.4%.

Global Equity Portfolio:

For the fiscal year 2020 period, the global equity composite held \$99.7 million (3.8% of the total Fund).

Fixed Income:

U.S. yields rose across the front end of the curve and the tail end of the curve in the second quarter of 2020, while they fell across the midsection. Shorter-maturity yields less than 1-year rose, resulting in a return of liquidity in the Treasury market. The 1-month Treasury ended the second quarter 2020 yielding 0.13%, which was up eight basis points from the prior quarter. Treasury yields with maturities between 1- and 10-years fell. The 10-year yield remained relatively stable, as unemployment data improved but GDP data and virus fears led to continued investor concern. Longer-maturity yields rose slightly as well, with the 30-yr yield ending the quarter at 1.41%, a 6 basis point increase over the prior quarter.

Global Central bank provided more stimulus measures as the global economic shutdowns were announced and as unemployment claims rose. The British pound, euro, and Japanese yen depreciated relative to the U.S. Dollar. Emerging market debt ended the second quarter 2020 with strong returns. After turning negative in April, oil prices recovered later in the second quarter resulting in appreciation for oil-sensitive currencies.

Domestic Fixed Income Portfolio:

For the fiscal year 2020, the total domestic fixed income composite held \$634 million (24.4% of the total Fund). The composite returned 8.5%, versus the Barclays U.S. Aggregate return of 8.7%.

CONSULTANT REPORT ON INVESTMENT ACTIVITY

November 18, 2020

Page 5

Emerging Market Debt Portfolio:

For the fiscal year 2020, the total emerging market debt composite held \$87 million (3.4% of the total Fund). The composite returned -3.1%, versus the JP Morgan GBI-EM index return of -1.8%.

MACS Portfolio: (Better Beta/Global Asset Allocation)

For the fiscal year 2020, the MACS composite held \$347 million (13.4% of the total Fund). The composite returned 3.2%, versus the custom Index return of 5.7%.

Real Estate:

The real estate market outlook shifted dramatically as the pandemic hit, with office and retail most affected. For Q2 2020, rent collection rates across property types was 86.1% value-weighted and 87.3% equal-weighted. In the U.S., retail sector appreciation was -3.2% for the first quarter of 2020 and hotel sector appreciation was -4.75%. The number of properties that were written down in the second quarter 2020 was roughly 80% of the properties in the NPI universe vs. 20% that were written up. This is the greatest disparity in sector performance since the financial crisis. Specifically to COVID-19, sectors such as multi-family and industrials are viewed as defensive as people stay home. These sectors also benefited from continued growth of e-commerce.

Real Estate Portfolio:

For the fiscal year 2020, the total real estate composite held \$174.9 million (6.7% of the total Fund). The composite returned 3.3%, versus the ERFC's blended real estate (custom) index return of 3.4%.

Hedge Fund Portfolio:

For the fiscal year 2020, the total hedge fund composite held \$94.3 million (3.6% of the total Fund) but has been shifted to a private opportunistic structure.


In fiscal year 2020, Segal Marco Advisors recommended a number of changes within the asset class structures and investment managers with the equities, REITs, fixed income, core real estate, private equity, MACs and hedge funds. Market conditions and Fund performance will continue to be monitored closely to accomplish the goal of providing the benefits as promised to participants.

In the latter part of fiscal year 2020, ERFC Trustees hired Meketa as a discretionary consultant within the private markets (real estate, private equity/credit, and infrastructure) investments.

Sincerely,



Susan Crotty
Senior Vice President



Rosemary Guillette
Vice President



Vanessa Vargas Guijarro
Vice President

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:

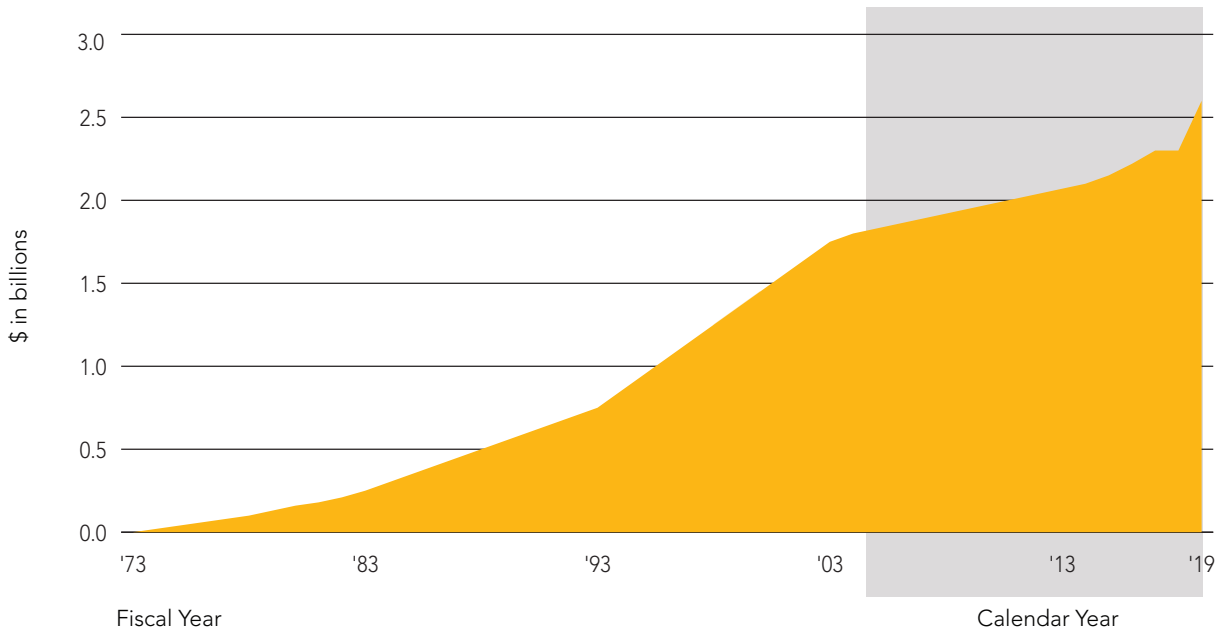
- the anticipated financial needs of the ERFC
- consideration of risk tolerance; and
- the need to document and communicate objectives, guidelines and standards to the investment managers.

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. 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, 2019 actuarial valuation)



INVESTMENT MANAGERS

ASSETS UNDER MANAGEMENT

As of June 30, 2020 (\$ in millions)

INVESTMENT MANAGER	INVESTMENT TYPE	AMOUNT
EQUITIES		
Large Capitalization		
Mellon Capital Management Corp.	Core Index (Russell 1000)	403.2
Small/Mid Capitalization		
Cramer Rosenthal McGlynn, LLC	Value	57.7
Schroder Investment Management NA, Ltd.	Core	60.6
Westfield Capital Management	Growth	62.5
International		
Acadian Asset Management	Core	126.1
Causeway Capital	Value	3.6
Lazard Asset Management	Value	99.7
William Blair & Company	Growth	110.5
William Blair & Company	Emerging Market	138.1
FIXED INCOME		
DoubleLine Capital, L.P.	Core Plus	179.6
Fidelity Institutional Asset Management	Core Plus	200.9
Loomis-Sayles & Company	Core Plus	253.5
Mondrian Investments	Emerging Market	87.3
GLOBAL ASSET ALLOCATION/BETTER BETA		
Bridgewater Associates, Inc.	Better Beta	138.3
Wellington Management Co.	Global Asset Allocation	106.5
Pacific Investment Management Co.	Global Asset Allocation	102.9
HEDGE FUND OF FUNDS		
Grosvenor Institutional Partners	Multi-Asset Class	94.3
PRIVATE EQUITY		
Audax	Private	1.2
Lexington	Private	12.8
Newstone	Private	0.9
Glouston	Private	4.1
Private Advisors	Private	20.3
HarbourVest	Private	77.1
Lake Star	Private	7.4
Francisco	Private	2.1
Lightspeed	Private	6.6
Searchlight	Private	2.1
Torchlight	Private	1.3
REAL ESTATE		
JP Morgan Asset Management	Commingled	66.5
PGIM Real Estate	Commingled	61.8
UBS Trumbull Realty Investors	Commingled	34.2
Landmark Partners	Private	13.3
CASH (TEMPORARY CASH)		58.9
TOTAL		\$ 2,595.0

ASSET STRUCTURE

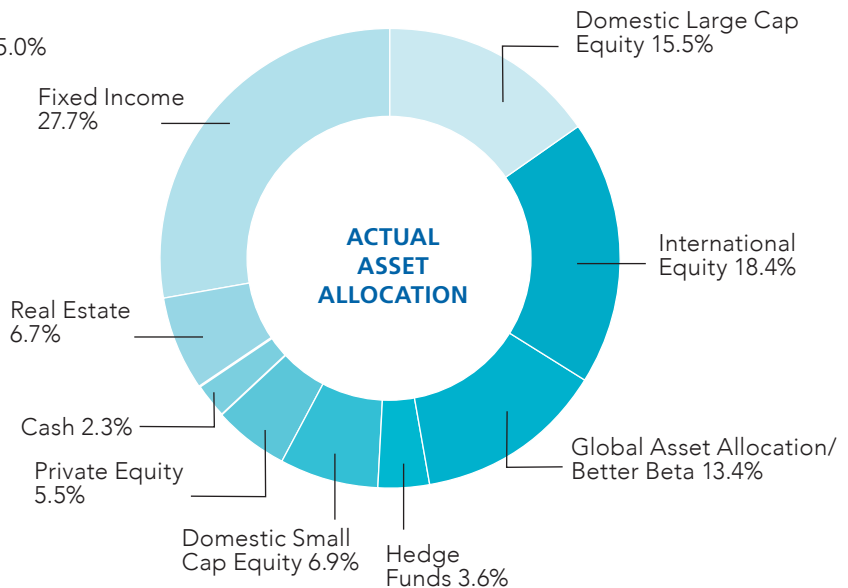
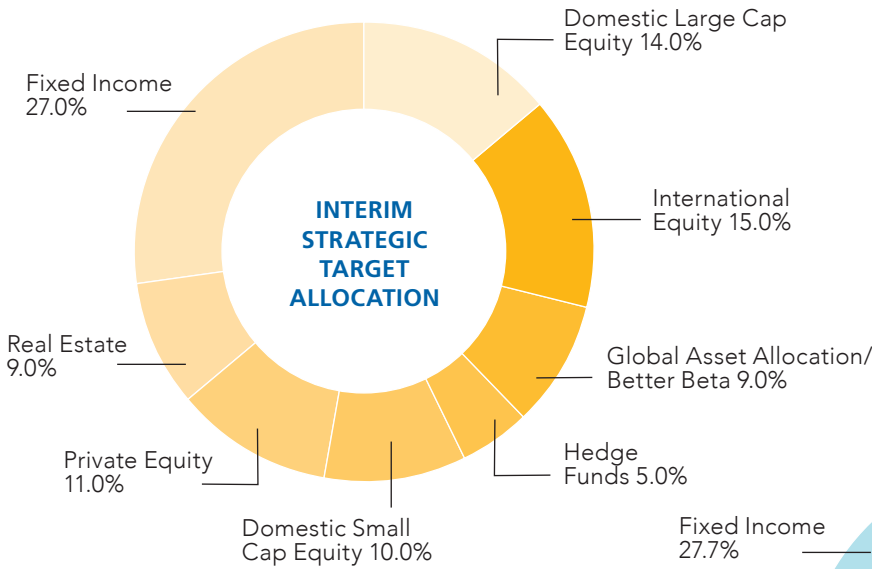
INTERIM STRATEGIC TARGET ALLOCATION AS OF JUNE 30, 2020

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

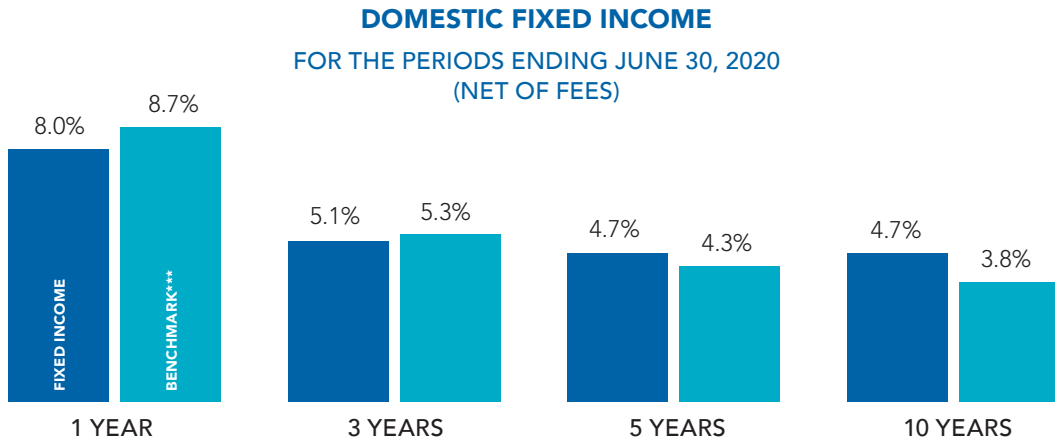
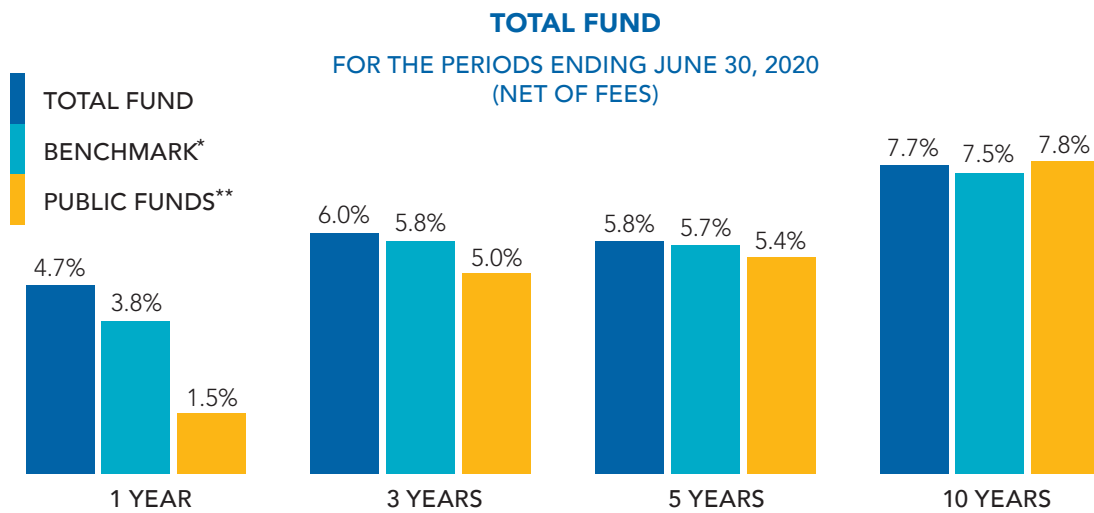
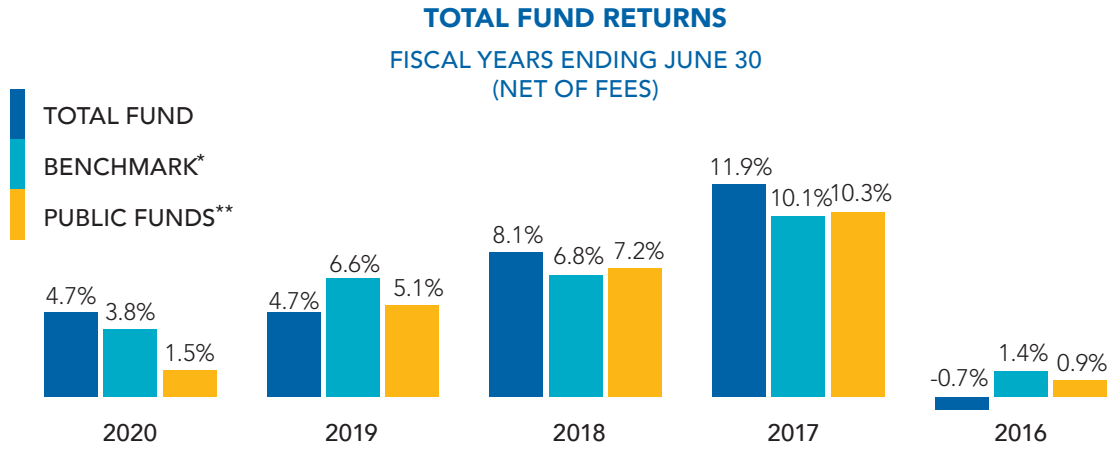
ACTUAL ASSET ALLOCATION AS OF JUNE 30, 2020

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.



INVESTMENT

INVESTMENT RESULTS



* Diversified benchmark is 16.5% Russell 1000 / 6% Russell 2000 / 14% MSCI ACWI ex USA / 3% MSCI Emerging Markets / 5% MSCI World / 5% Citi WGBI / 5% BBgBarc US TIPS TR / 3% JPM GBI-EM Global Diversified TR / 8% NCREIF - ODCE NET / 12% BBgBarc US Aggregate TR / 4% BBgBarc US Credit TR / 4% BBgBarc US Credit Long TR / 5% HFRI Fund of Funds Composite Index / 3.5% Thomson One All US Private Equity Index / 6% BBgBarc Global Aggregate TR

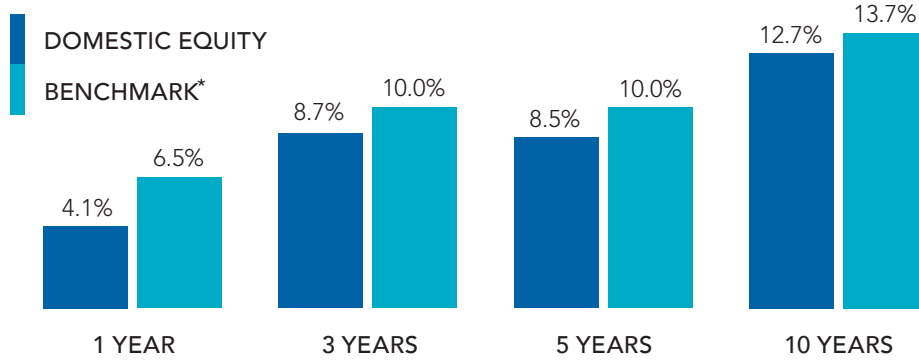
** Investor Force Public Defined Benefit Plan Universe

*** Bloomberg Barclays US Aggregate

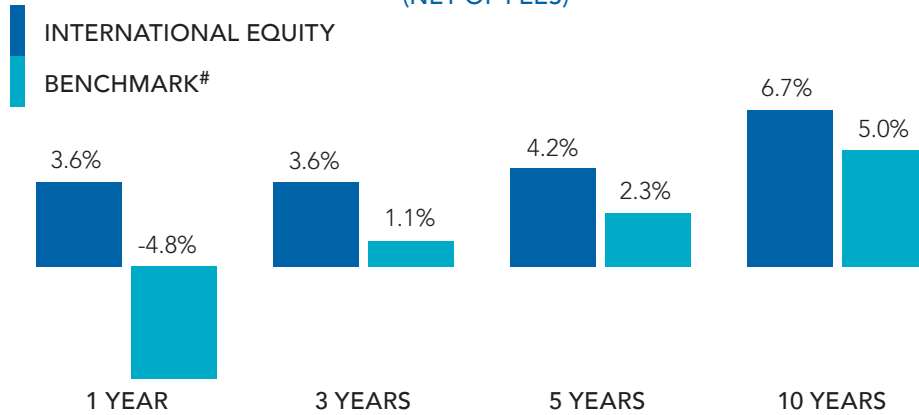
INVESTMENT RESULTS

(For the Periods Ending June 30, 2020)

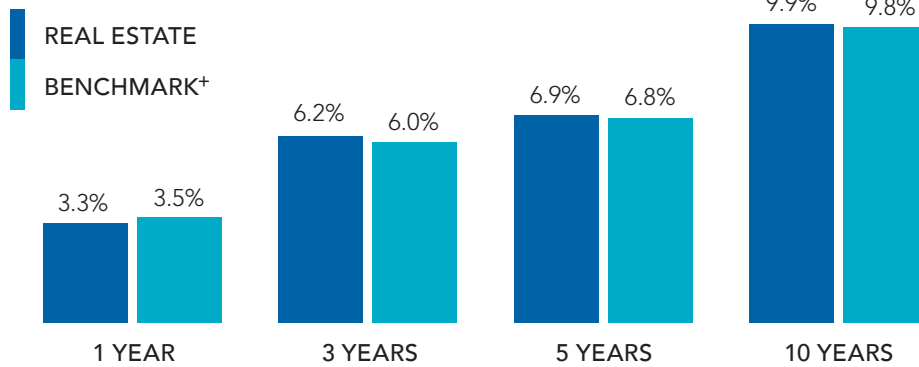
DOMESTIC EQUITY (NET OF FEES)



INTERNATIONAL EQUITY (NET OF FEES)



REAL ESTATE (NET OF FEES)



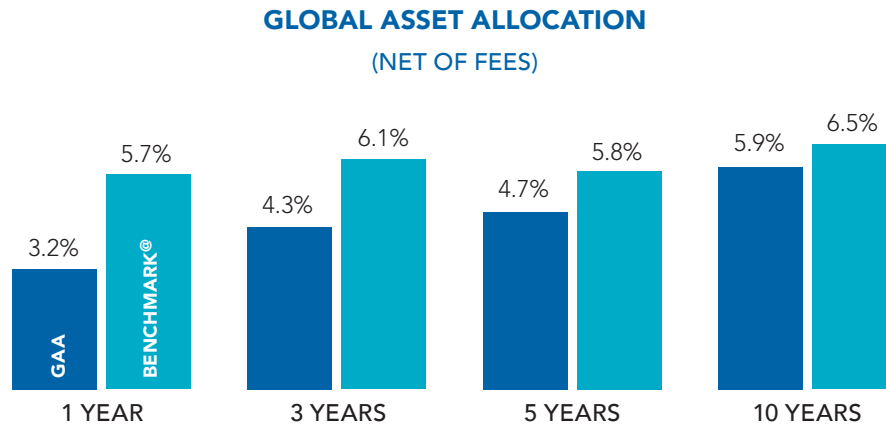
* Benchmark: Russell 3000 Index

MSCI AC World ex-USA (net)

+ Benchmark: Blended Real Estate Index

INVESTMENT RESULTS

(For the Periods Ending June 30, 2020)



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

@ 33.3% MSCI World/33.3% CITI WGBI/33.4% LEH US TIPS

SCHEDULES OF TEN LARGEST EQUITY & FIXED INCOME HOLDINGS

(As of June 30, 2020)

TEN LARGEST EQUITY HOLDINGS*

NO. SHARES	DESCRIPTION	COST	FAIR VALUE	% OF TOTAL PORTFOLIO
11,859	Roche Holding AG	\$ 2,894,412	\$ 4,109,443	0.16%
62,100	Tencent Holdings Ltd	2,630,029	3,995,002	0.15%
145,080	Alibaba Group Holding Ltd	3,245,422	3,923,484	0.15%
29,218	Nestle SA	3,172,972	3,229,691	0.12%
7,273	LVMH Moet Hennessy Louis Vuitton	3,048,112	3,189,866	0.12%
35,318	Novartis AA	3,301,680	3,072,038	0.12%
7,200	Keyence Corp	2,228,508	3,005,200	0.12%
49,850	Taiwan Semiconductor Manufacturing	2,587,714	2,829,985	0.11%
4,902	Lonza Group AG	1,754,124	2,587,706	0.10%
36,573	Tal Education Group	1,884,319	2,500,862	0.10%
TOTAL		\$ 26,747,292	\$ 32,443,277	1.25%

TEN LARGEST FIXED INCOME HOLDINGS*

PAR VALUE	SECURITY	COUPON	MATURITY	COST	FAIR VALUE	% OF TOTAL PORTFOLIO
16,500,000	US Treasury Note	1.63%	8/15/29	\$ 17,999,180	\$ 18,003,645	0.69%
12,500,000	US Treasury Note	0.13%	4/30/22	12,486,816	12,490,250	0.48%
10,350,800	US Treasury Note	0.38%	4/30/25	10,353,346	10,397,689	0.40%
7,980,000	US Treasury Bond	2.00%	2/15/50	9,627,464	9,138,935	0.35%
6,000,000	Commit To Pur GNMA II Jumbos	2.50%	7/20/50	6,282,891	6,315,960	0.24%
6,000,000	Commit To Pur FNMA SF Mtg	2.50%	7/1/35	6,263,438	6,281,700	0.24%
5,300,004	FHLMC Pool #SD-8045	3.50%	1/1/50	5,583,223	5,571,099	0.21%
4,991,495	FNMA Pool #0BP5817	2.50%	5/1/50	5,165,417	5,201,687	0.20%
4,880,000	US Treasury Note	1.50%	9/30/24	4,862,844	5,140,006	0.20%
4,875,000	US Treasury Bill	0.00%	7/30/20	4,873,829	4,873,829	0.19%
TOTAL				\$ 83,498,448	\$ 83,414,800	3.20%

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

SCHEDULE OF BROKERAGE COMMISSIONS

(Year Ended June 30, 2020)

BROKER NAME	BASE VOLUME	TOTAL SHARES	BASE COMMISSION	COMMISSION PERCENTAGE
State Street Global Markets LLC, Boston	\$ 442,099,652	9,103,061	\$ 86,936	0.01 %
Merrill Lynch Intl London Equities	176,166,481	13,235,795	38,830	0.00
Jefferies & Co Inc, New York	60,472,277	1,777,482	23,186	0.01
Goldman Sachs & Co, Ny	43,091,873	8,284,176	19,127	0.00
Merrill Lynch Pierce Fenner Smith Inc Ny	29,346,341	536,121	9,177	0.02
Credit Suisse, New York (CSUS)	28,709,939	3,277,875	21,335	0.01
Morgan Stanley & Co Inc, Ny	21,799,755	1,527,399	10,630	0.01
Liquidnet Inc, New York	21,784,809	678,858	18,903	0.03
UBS Equities, London	20,859,411	1,318,126	9,916	0.01
UBS Securities LLC, Stamford	18,261,036	466,180	12,070	0.03
Instinet Clearing Ser Inc, New York	17,159,981	429,847	6,831	0.02
Bernstein Sanford C & Co, New York	16,991,927	590,585	9,840	0.02
National Finl Svcs Corp, New York	16,616,283	562,233	13,576	0.02
Barclays Capital LE, New York	15,973,371	550,036	11,525	0.02
JP Morgan Secs Ltd, London	14,510,506	1,175,178	6,401	0.01
Citigroup Global Markets, Inc., New York	13,928,297	335,263	6,452	0.02
JP Morgan Securities Inc, New York	13,200,422	275,608	5,760	0.02
BOFA Securities, Inc, New York	11,148,587	592,927	3,100	0.01
Investment Tech Group Inc, New York	10,486,959	286,219	7,140	0.02
HSBC Bank PLC (Midland Bk)(Jac), London	9,135,013	3,082,969	5,190	0.00
JP Morgan Securities Llc, New York	8,624,563	186,794	1,054	0.01
SG Americas Securities Llc, New York	8,566,864	2,591,895	2,205	0.00
Credit Suisse (Europe), London	7,759,869	1,328,659	4,000	0.00
UBS Warburg Asia Ltd, Hong Kong	7,389,802	2,096,947	2,440	0.00
JP Morgan Securities, Hong Kong	7,098,213	4,283,185	2,073	0.00
Instinet Corp, New York	6,989,840	200,266	998	0.00
Instinet Pacific Ltd, Hong Kong	5,760,361	4,508,576	1,695	0.00
RBC Capital Markets Llc, New York	5,678,296	505,612	6,443	0.01
Instinet Europe Limited, London	5,290,644	399,364	2,307	0.01
HSBC Secs Inc, New York	5,237,049	1,207,676	1,846	0.00
Baird, Robert W & Co Inc, Milwaukee	5,216,845	117,656	4,584	0.04
UBS Ag London Branch, London	5,079,015	98,563	2,136	0.02
Jefferies & Co Ltd, London	4,903,002	346,049	3,308	0.01
Credit Lyonnais Secs, Singapore	4,821,366	113,585	1,624	0.01
Luminex Trading And Analytics, Boston	4,390,409	96,807	2,283	0.02
Goldman Sachs (Asia), Seoul	3,857,217	259,448	1,157	0.00
Suntrust Capital Markets Inc, New York	3,769,940	100,602	4,009	0.04
Jonestrading Inst Svcs Llc, New York	3,654,331	232,475	6,009	0.03
Instinet Australia Clearing Serv, Sydney	3,647,761	292,515	912	0.00
ISI Group Inc, New York	3,355,225	108,920	3,606	0.03
JP Morgan Sec, Sydney	3,325,164	945,691	929	0.00
Wells Fargo Securities, Llc, New York	3,220,748	147,859	5,724	0.04
JP Morgan Securities Inc, New York	3,156,878	268,681	611	0.00
SG Securities, Hong Kong	3,082,509	1,784,515	828	0.00
Citigroup Global Markets Ltd, London	3,058,171	463,944	3,144	0.01
Other Brokers	93,598,961	12,469,682	63,395	0.00
OTHER BROKERS	\$ 1,222,275,965	83,241,904	\$ 455,247	

INVESTMENT SUMMARY

	As of June 30, 2020		As of June 30, 2019	
	FAIR VALUE	% FAIR VALUE	FAIR VALUE	% FAIR VALUE
FIXED INCOME				
U.S. Government obligations	\$ 127,212,756	4.8%	\$ 20,877,635	0.8%
Asset-backed securities	114,457,007	4.3%	1,597,045	0.1%
Domestic corporate bonds	303,801,747	11.4%	59,113,116	2.4%
Convertible bonds	3,958,329	0.1%	4,120,335	0.2%
International bonds	26,323,671	1.0%	18,620,528	0.7%
Municipal bonds	542,731	0.0%	-	0.0%
Preferred stocks	126,688	0.0%	5,189,750	0.2%
Index / Commingled fund	100,776,981	3.8%	575,050,621	22.7%
Total fixed income	677,199,910	25.4%	684,569,030	27.1%
DOMESTIC EQUITY				
Basic industry	27,648,810	1.0%	45,282,598	1.8%
Consumer services	57,817,862	2.2%	120,599,565	4.8%
Financial and utility	43,409,759	1.6%	79,353,221	3.2%
Technological	34,561,672	1.3%	102,522,808	4.1%
Index / Commingled fund	502,907,676	18.9%	147,559,747	5.9%
Total domestic equity	666,345,779	25.0%	495,317,939	19.8%
International Equity				
Basic industry	39,110,530	1.5%	63,671,062	2.5%
Consumer and services	85,026,061	3.2%	107,183,159	4.3%
Financial and utility	40,328,651	1.5%	76,491,764	3.0%
Technological	77,405,327	2.9%	75,515,135	3.0%
Index / Commingled fund	138,096,463	5.2%	120,391,551	4.8%
Total international equity	379,967,032	14.3%	443,252,671	17.6%
Real Estate				
Commercial	95,989,145	3.6%	75,289,651	3.0%
Commingled	66,486,874	2.5%	134,411,069	5.3%
Private	13,264,667	0.5%	8,325,064	0.3%
Total real estate	175,740,686	6.6%	218,025,784	8.6%
Alternative investments				
Better beta	\$138,261,722	5.2%	130,756,594	5.2%
Global asset allocation	209,334,379	7.8%	247,355,510	9.8%
Hedge fund of funds	94,317,040	3.5%	117,526,120	4.7%
Limited partnerships	134,084,397	5.0%	115,300,063	4.6%
Total alternative investments	575,997,538	21.5%	610,938,287	24.3%
Subtotal investments at fair value	2,475,250,945	92.8%	2,452,103,711	97.4%
Short-term Investments				
Money Market	192,753,779	7.2%	63,034,618	2.6%
Total short-term investments	192,753,779	7.2%	63,034,618	2.6%
Total	\$ 2,668,004,724	100.0%	\$ 2,515,138,329	100.0%

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

SCHEDULE OF INVESTMENT MANAGEMENT FEES

(Year Ended June 30, 2020)

INVESTMENT CATEGORY	ASSETS UNDER MANAGEMENT	EXPENSE
Better beta	\$ 138,261,722	\$ 635,146
Domestic equity managers	678,084,889	1,174,749
Fixed income managers	677,073,222	2,070,889
Global asset allocation managers	209,334,379	1,803,020
Hedge fund of funds	94,317,040	520,392
International managers	368,354,610	2,477,169
Private equity	134,084,397	2,466,474
Real estate managers	175,740,685	2,078,681
Total	\$ 2,475,250,944	\$ 13,226,520

Note: Excludes cash and cash equivalents

ERFC CALL CENTER AND COUNSELING
STAFF TAKE ADVANTAGE OF
MULTIMEDIA PLATFORMS SO THAT
NO RETIREMENT QUESTION GOES
UNANSWERED.



UNAUDITED

ACTUARIAL

ACTUARY'S CERTIFICATION LETTERS



November 6, 2020

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, 2019. 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, 2020 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, 2019 and the accounting valuation report that was prepared as of June 30, 2019. 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
November 6, 2020

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 7.25%. Based upon the results of a projection performed in accordance with GASB Statement No. 67 parameters and reported in the June 30, 2030 Actuarial Report, the Single Discount Rate for purposes of discounting pension liabilities for pension financial reporting purposes is also 7.25%.

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, 2019 valuation was based upon assumptions that were recommended in connection with a study of experience during the period from January 1, 2010 to December 31, 2014 and further analysis in July 2017 that was undertaken by the prior actuary. 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 2020 Comprehensive Annual 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, 2019
 - Historical Information for All Members (last 8 years)
 - All Active Members in Valuation on December 31, 2019 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
November 6, 2020

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, 2019 funding report and the June 30, 2020 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:lav
Enclosures
cc: Ms. Jegda Jeanty, Aon

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, 2014, 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 3.25 percent, the 7.25 percent investment return rate translates to an **assumed real rate of return over wages of 4.0 percent**.

Pay increase assumptions for individual active members are shown by years of service on Table A. Part of the assumption is for merit and/or seniority increase, and the other 3.25 percent recognizes price inflation and real wage growth.

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

Total active member payroll is assumed to increase 3.25 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 Table C.

The **mortality table** used to measure retired life mortality was 90% of the male rates and 79% of the female rates of the RP-2014 mortality Total Data Set Healthy Annuitant Mortality tables, adjusted for mortality improvement back to the base year of 2006. Related values are shown on Table D.

The **probabilities of withdrawal** from service, death-in-service, and disability are shown for sample ages on Table B.

The **individual entry age 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.).

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).

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

TABLE A: SAMPLE PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER

SERVICE INDEX	PAY INCREASE ASSUMPTION		
	MERIT & SENIORITY	BASE (ECONOMY)	INCREASE NEXT YEAR
1	5.80%	3.25%	9.05%
2	4.00%	3.25%	7.25%
3	3.30%	3.25%	6.55%
4	3.10%	3.25%	6.35%
5	2.50%	3.25%	5.75%
6	2.40%	3.25%	5.65%
7	2.30%	3.25%	5.55%
8	1.70%	3.25%	4.95%
9	1.60%	3.25%	4.85%
10-14	1.40%	3.25%	4.65%
15	0.90%	3.25%	4.15%
16	0.80%	3.25%	4.05%
17	0.70%	3.25%	3.95%
18-19	0.50%	3.25%	3.75%
20	0.40%	3.25%	3.65%
21	0.30%	3.25%	3.55%
22-24	0.20%	3.25%	3.45%
25	0.00%	3.25%	3.25%

TABLE B: SAMPLE RATES OF SEPARATION FROM ACTIVE EMPLOYMENT BEFORE RETIREMENT

SAMPLE AGES	PERCENT OF ACTIVE MEMBERS SEPARATING WITHIN NEXT YEAR							
	DEATH				DISABILITY			
	ORDINARY		DUTY		ORDINARY		DUTY	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
25	0.0228%	0.0071%	0.0023%	0.0007%	0.0146%	0.0082%	0.0036%	0.0020%
30	0.0215	0.0091	0.0022	0.0009	0.0158	0.0122	0.0040	0.0031
35	0.0252	0.0121	0.0025	0.0011	0.0234	0.0214	0.0059	0.0054
40	0.0298	0.0163	0.0030	0.0015	0.0339	0.0308	0.0085	0.0077
45	0.0456	0.0267	0.0046	0.0025	0.0520	0.0456	0.0130	0.0114
50	0.0789	0.0454	0.0079	0.0042	0.0842	0.0726	0.0210	0.0181
55	0.1333	0.0704	0.0133	0.0065	0.1469	0.1228	0.0367	0.0307
60	0.2279	0.1016	0.0228	0.0095	0.2447	0.1770	0.0612	0.0443

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

TABLE C: PROBABILITY OF RETIREMENT FOR MEMBERS ELIGIBLE TO RETIRE

AGE	ERFC LEGACY (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 RULE OF 90 MET?	
	Service	Reduced Service	Age Based	Service	Service Based	Yes	No
45		2%					
46		2					
47		2					
48		2					
49		2					
50		2					
51		3					
52		6					
53		7					
54		8					
55	35%	6	17.5%	30	17.5%		
56	35	4	17.5	31	17.5	35%	0%
57	25	4	12.5	32	12.5	35	0
58	25	4	12.5	33	12.5	35	0
59	25	4	12.5	34	12.5	35	0
60	25	7	10.0	35	10.0	35	0
61	30	8	10.0	36	10.0	35	0
62	30	13	10.0	37	10.0	35	0
63	30	13	10.0	38	25.0	35	0
64	30	13	20.0	39	40.0	35	0
65	30		25.0	40 & Up	100.0	35	0
66	30		30.0			35	0
67	25		25.0			35	30
68	25		15.0			35	15
69	20		15.0			35	15
70	20		15.0			35	15
71	20		15.0			35	15
72	20		15.0			35	15
73	30		15.0			35	15
74	30		15.0			35	15
75 & Over	100		100.0			100	100

ACTUARIAL

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

TABLE D: SINGLE LIFE RETIREMENT VALUES

Mortality rates for a particular calendar year are determined by applying the fully generational MP-2016 Mortality Improvement scale to the above-described tables. Tables were extended below age 50 with a cubic spline to published Juvenile rates. These tables were first used in the December 31, 2016 valuation. The rationale for the mortality assumption is based on the 2010-2014 Experience Study issued November 10, 2015 and further analysis done in July 2017.

MORTALITY

FUTURE LIFE EXPECTANCY (YEARS)		
SAMPLE AGES IN 2016	MALE	FEMALE
55	30.77	34.44
60	26.16	29.58
65	21.76	24.90
70	17.61	20.42
75	13.74	16.20
80	10.27	12.38

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

TABLE E: RATES OF FORFEITURE FOLLOWING VESTED SEPARATION

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 does not apply to individuals who are eligible for retirement at the time of termination.

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

ACTUARIAL

EMPLOYER SCHEDULE OF FUNDING PROGRESS

(Last Ten Years)

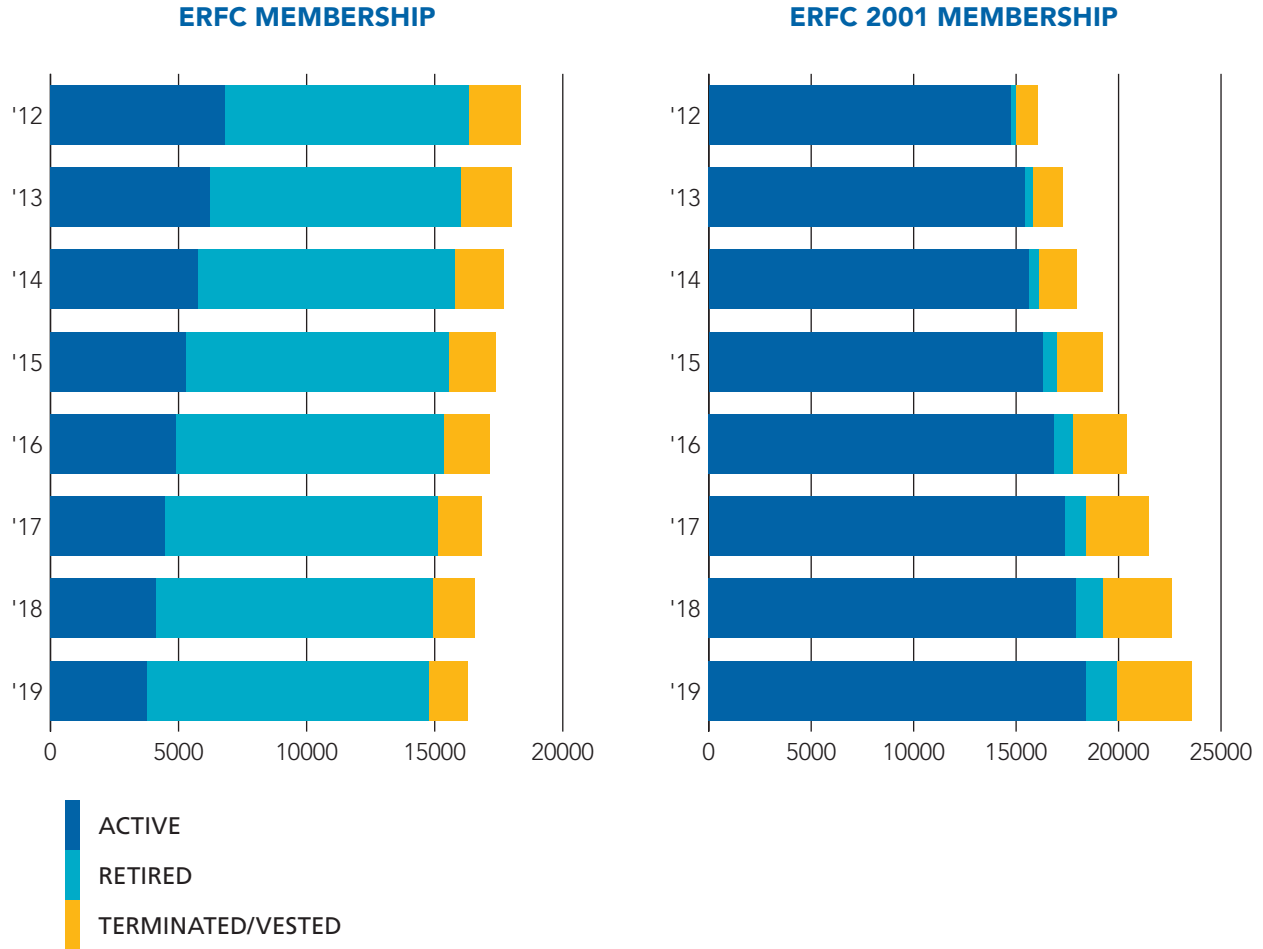
EMPLOYER SCHEDULE OF FUNDING PROGRESS

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]
(\$ IN THOUSANDS)						
2010	\$1,822,603	\$2,384,061	\$561,458	\$1,191,290	76.4%	47.1%
2011	1,866,952	2,470,964	604,012	1,246,973	75.6%	48.4%
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	769,272	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%	54.3%

See Schedule of Employer Contributions on page 32.

SUMMARY OF MEMBER DATA

(Last Eight Years)



Calendar Year (As of December 31)	YEAR	ERFC			ERFC 2001			TOTAL
		ACTIVE	RETIRED	TERMINATED/ VESTED	ACTIVE	RETIRED	TERMINATED/ VESTED	
	2012	6,801	9,524	2,029	14,718	264	1,070	34,406
	2013	6,221	9,776	2,009	15,422	380	1,500	35,308
	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

ACTUARIAL

SUMMARY OF MEMBER DATA

(As of December 31, 2019)

ACTIVE ERFC MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE

AGE GROUP	YEARS OF SERVICE TO VALUATION DATE							TOTALS		
	0-4	5-9	10-14	15-19	20-24	25-29	30 & UP	NO.	SALARY	AVERAGE
35-39			1	3				4	\$ 308,678	\$ 77,170
40-44	2	13	36	187	104			342	33,212,653	97,113
45-49	7	23	68	220	456	89	1	864	87,677,474	101,479
50-54	6	45	45	174	366	266	39	941	93,156,840	98,998
55-59	3	10	29	175	290	151	57	715	64,991,912	90,898
60	1	2	7	32	57	18	7	124	10,804,456	87,133
61		1	3	15	62	26	4	111	9,846,213	88,705
62		1	3	21	56	26	14	121	10,677,001	88,240
63			1	26	57	26	8	118	9,964,247	84,443
64			4	22	42	27	12	107	9,576,301	89,498
65		1	3	21	33	15	6	79	6,724,954	85,126
66		1		8	27	5	4	45	3,704,840	82,330
67			1	13	23	9	9	55	4,966,435	90,299
68	1		1	3	16	7	5	33	2,621,229	79,431
69				7	11	6	3	27	2,271,471	84,129
70				2	6	1	4	13	1,178,727	90,671
71			1	4	8	5	3	21	1,908,350	90,874
72	2			1	4	1	2	9	653,288	72,588
73				1	1	2	2	6	536,083	89,347
74					3	2	2	7	786,887	112,412
75 & over				3	6	4	6	19	1,412,160	74,324
TOTAL	21	97	203	938	1,628	686	188	3,761	\$356,980,199	\$94,916

SUMMARY OF MEMBER DATA

(As of December 31, 2019)

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 & UP	NO.	SALARY	
20-24	12				12	\$ 384,407	\$ 32,034
25-29	818	377	1		1,196	73,715,219	61,635
30-34	574	1,411	192	1	2,178	150,022,850	68,881
35-39	353	791	897	203	2,244	176,057,373	78,457
40-44	339	515	495	520	1,869	153,836,325	82,309
45-49	351	529	411	373	1,664	131,086,656	78,778
50-54	323	500	449	281	1,553	114,004,933	73,409
55-59	248	449	491	337	1,525	107,374,280	70,409
60	24	56	87	80	247	18,385,885	74,437
61	23	54	70	49	196	13,886,792	70,851
62	22	39	68	62	191	14,266,434	74,693
63	11	43	50	36	140	9,734,842	69,535
64	14	27	47	50	138	9,793,821	70,970
65	8	21	37	33	99	6,693,703	67,613
66	11	16	32	22	81	5,707,458	70,462
67	8	14	20	15	57	4,404,384	77,270
68	4	8	9	17	38	2,508,947	66,025
69	3	11	9	15	38	2,747,763	72,310
70	2	3	9	7	21	1,313,097	62,528
71		7	3	4	14	744,552	53,182
72	2	3	1	1	7	340,394	48,628
73	1	3	4		8	587,634	73,454
74	2	1	1	1	5	204,164	40,833
75 & over	1	1	2	8	12	947,038	78,920
TOTAL	3,154	4,879	3,385	2,115	13,533	\$998,748,951	\$73,801

ACTUARIAL

SUMMARY OF MEMBER DATA

(As of December 31, 2019)

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

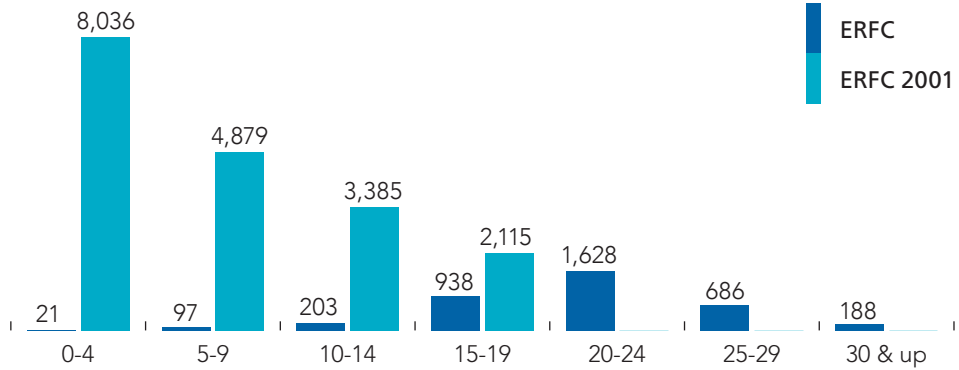
AGE GROUP	YEARS OF SERVICE TO VALUATION DATE				TOTALS		AVERAGE
	0-4	5-9	10-14	15 & UP	NO.	SALARY	
15-19	2				2	\$ 45,843	\$ 22,922
20-24	618				618	30,769,891	49,789
25-29	1,270				1,270	68,184,580	53,689
30-34	655				655	38,544,660	58,847
35-39	535				535	33,449,696	62,523
40-44	512				512	31,383,507	61,296
45-49	499				499	29,121,753	58,360
50-54	412				412	23,854,787	57,900
55-59	234				234	13,242,409	56,591
60	35				35	2,038,421	58,241
61	28				28	1,599,295	57,118
62	22				22	1,227,896	55,813
63	19				19	1,086,290	57,173
64	12				12	691,860	57,655
65	7				7	403,033	57,576
66	4				4	260,117	65,029
67	6				6	224,942	37,490
68	4				4	279,958	69,990
69	3				3	185,370	61,790
70	1				1	30,199	30,199
71	-				-	-	-
72	3				3	101,247	33,749
73	1				1	91,723	91,723
	4,882				4,882	\$276,817,477	\$56,702

SUMMARY OF MEMBER DATA

(As of December 31, 2019)

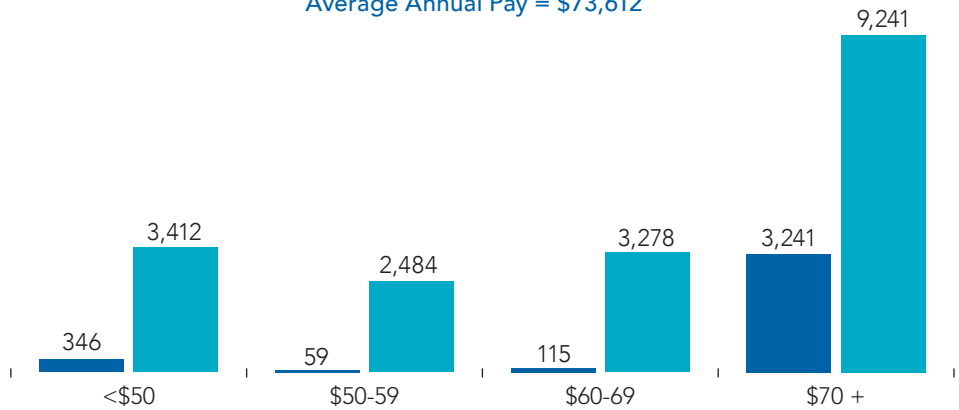
ACTIVE MEMBER YEARS OF SERVICE

Average Service = 9.6 years



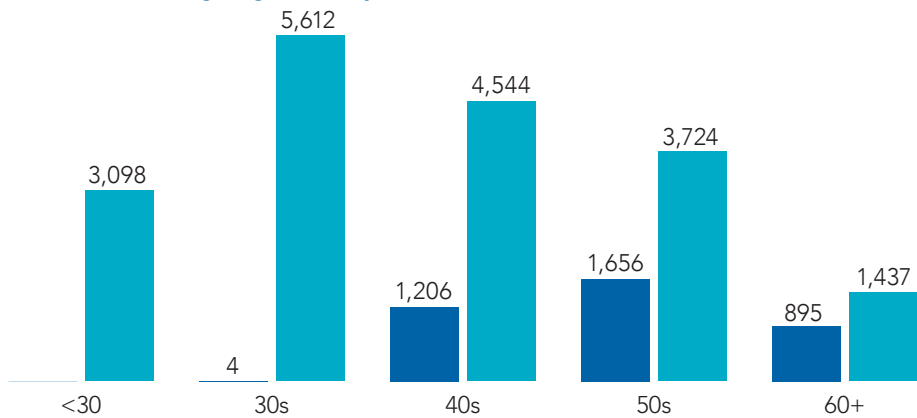
ACTIVE MEMBER SALARIES (\$ IN THOUSANDS)

Average Annual Pay = \$73,612



ACTIVE MEMBER AGES

Average Age = 44.3 years | Total Active Members = 22,176



ACTUARIAL

SUMMARY OF MEMBER DATA

(Last 10 Years)

ACTIVE MEMBER VALUATION DATA

ANNUAL VALUATION DATE	ANNUAL NUMBER	ANNUAL PAYROLL	AVG. ANNUAL PAY	% INCREASE IN AVERAGE PAY
December 31, 2010	20,141	\$ 1,191,290,190	\$ 59,148	(2.6)
December 31, 2011	20,976	1,246,973,240	59,448	0.5
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

RETIRANTS AND BENEFICIARIES ADDED AND REMOVED (10 YEARS)

Year	ADDED TO PAYROLL		REMOVED FROM PAYROLL		PAYROLL AT END OF YEAR			
	No.	Annualized Monthly Benefit	No.	Annualized Monthly Benefit	No.	Annualized Monthly Benefit	Average Annualized Monthly Benefit	% Increase in Monthly Benefit
(As of December 31)								
2010	563	\$ 774,606	254	\$ 170,078	9,081	\$ 11,916,352	\$ 1,312	3.03
2011	629	851,853	243	169,704	9,467	12,410,208	1,311	4.14
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

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 (liability 1 in the table below) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. The larger the funded portion of liability 3, the stronger the condition of the system.

AGGREGATE ACTUARIAL ACCRUED LIABILITIES

Last 20 years

VALUATION DATE	(1) MEMBER CONTRIBUTIONS	(2) RETIREES AND BENEFICIARIES	(3) MEMBERS (EMPLOYER FINANCED PORTION)	VALUATION ASSETS	PORTION OF ACCRUED LIABILITIES COVERED BY ASSETS		
					(1)	(2)	(3)
(\$ in thousands)							
6/30/2000	\$ 157,148	\$ 614,739	\$ 595,484	\$ 1,505,231	100%	100%	123%
6/30/2001	178,564	667,605	674,857	1,599,219	100	100	112
* 6/30/2001	178,564	667,605	706,389	1,599,219	100	100	107
6/30/2002	170,849	699,251	823,856	1,619,889	100	100	91
* 6/30/2003	176,648	903,963	691,807	1,597,459	100	100	75
# 12/31/2004	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	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	342,663	1,314,885	682,321	1,769,540	100	100	16
@ 12/31/2010	374,086	1,355,093	654,882	1,822,603	100	100	14
* 12/31/2011	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	472,933	1,590,489	817,281	2,188,037	100	100	15
*#12/31/2016	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

@ After change in asset valuation method. * After change in benefits or contribution rates. # After changes in actuarial assumptions.

ACTUARIAL

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)

ECONOMIC RISK AREA				DEMOGRAPHIC RISK AREA			TOTAL GAIN (LOSS)	
Experience Period	Pay Increases	Investment Return	Age and Service Retirement	Disability and Death-in Service	Other Separations	Other ^{&}	Amount	Percent of Liabilities
For Periods Ending June 30								
1999–00	\$(17.6)	\$62.3	\$3.8	\$(1.2)	\$12.9	\$38.9	\$99.1	7.4%
2000–01	(9.1)	17.6	(0.3)	(1.0)	13.0	(19.5)	0.7	0.0
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	Due to transition to calendar year valuations, a gain/loss analysis was not conducted for this valuation period.							
#2005	(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	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	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)

Experience Study

@ Gain Loss analysis not performed

& Includes post-retirement mortality

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.

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

Before July 1, 2017, continued on next page

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.

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 which 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.

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)

SUPPORT EMPLOYEES

FISCAL YEAR	EMPLOYEE	EMPLOYER	TOTAL
ERFC began using composite rates effective July 1, 1999			
2000	2.00%	4.99%	6.99%
2001	2.00	3.69	5.69
2002	2.00	3.69	5.69
2003	2.00	4.00	6.00
2004			
7/1 to 5/30	2.00	4.29	6.29
6/1 to 6/30	4.00	2.53	6.53
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

SUMMARY OF PLAN CHANGES

There were no significant plan changes during the valuation period ending December 31, 2019.

This page is intentionally left blank.



REVAMPED PLAN BROCHURES
INCLUDE ALL NEW, SIMPLIFIED
EXPLANATIONS OF EACH
PLAN'S FEATURES AND
HIGHLIGHTS

UNAUDITED

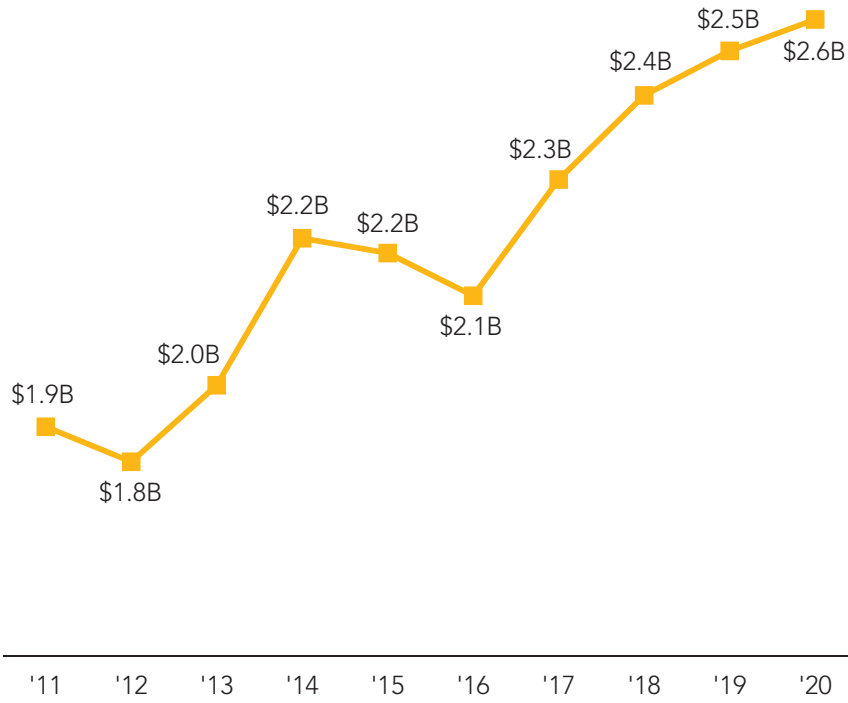
ACTUALS
STATISTICS



NET POSITION

Last 10 Fiscal Years

NET POSITION

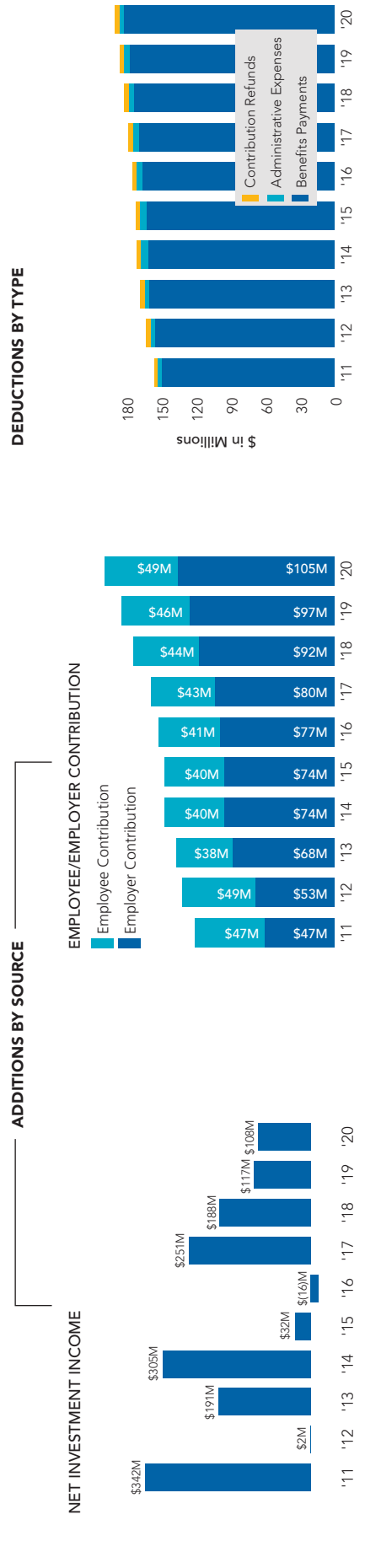


FISCAL YEARS	NET POSITION
2011	\$ 1,886,968,119
2012	1,827,768,322
2013	1,956,772,826
2014	2,204,927,191
2015	2,179,724,057
2016	2,107,587,698
2017	2,304,281,654
2018	2,446,279,897
2019	2,521,441,472
2020	2,593,383,175

CHANGES IN NET POSITION

Last 10 Fiscal Years

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
ADDITIONS										
Employee contributions	\$47,167,129	\$49,142,379	\$38,428,367	\$40,018,590	\$39,982,963	\$41,383,642	\$43,062,632	\$44,169,100	\$46,645,396	\$49,095,601
Employer contributions	47,118,111	52,934,245	67,734,634	74,174,082	74,324,396	76,599,695	80,094,538	91,704,877	96,982,911	104,741,255
Investment income (net of expenses)	341,669,367	1,635,435	190,947,851	304,640,803	32,083,908	(15,766,967)	250,981,777	188,145,489	117,727,500	108,472,534
Gain/loss from sale of capital assets	(1,503)	—	—	—	—	—	—	—	—	—
TOTAL ADDITIONS TO PLAN NET POSITION	435,953,104	103,712,059	297,110,852	418,833,475	146,391,267	102,216,370	374,138,947	324,019,466	261,355,807	262,309,390
DEDUCTIONS										
Benefit payments	149,046,042	155,041,762	160,098,128	161,276,831	162,145,265	165,721,790	168,783,718	173,052,461	177,422,308	181,587,150
Contribution refunds	4,258,033	4,295,171	4,419,806	5,772,959	5,697,311	4,626,057	4,601,865	4,667,835	4,509,765	4,399,346
Administrative expenses	3,344,333	3,574,923	3,588,414	3,629,320	3,751,825	4,004,882	4,059,408	4,300,927	4,262,159	4,381,191
TOTAL DEDUCTIONS TO PLAN NET POSITION	156,648,408	162,911,856	168,106,348	170,679,110	171,594,401	174,352,729	177,444,991	182,021,223	186,194,232	190,367,687
CHANGE IN NET POSITION NET OF EXPENSES	\$279,304,696	\$(59,199,797)	\$129,004,504	\$248,154,365	\$(25,203,134)	\$(72,136,359)	\$196,693,956	\$141,998,243	\$75,161,575	\$71,941,703



ASSETS AND LIABILITIES COMPARATIVE STATEMENT

Last 20 Years—Dollars in Thousands

Valuation Date	Active Member Payroll	COMPUTED LIABILITIES			Valuation Assets	[Excess of Assets] Unfunded Accrued Liabilities	Funded Percent
		Retired	Members	Total			
6/30/2000	\$678,937	\$614,739	\$752,632	\$1,367,371	\$1,505,231	\$(137,860)	110.1 %
* 6/30/2001	759,906	667,605	884,953	1,552,558	1,599,219	(46,661)	103.0
6/30/2002	781,756	699,251	994,705	1,693,956	1,619,889	74,067	95.6
* 6/30/2003	866,502	903,963	868,455	1,772,418	1,597,459	174,959	90.1
12/31/2004	977,817	1,043,677	853,565	1,897,242	1,640,216	257,026	86.5
# 12/31/2004	977,817	1,083,988	851,594	1,935,582	1,643,020	292,562	84.9
12/31/2005	1,050,271	1,130,378	892,584	2,022,962	1,718,399	304,563	84.9
12/31/2006	1,111,828	1,176,979	928,573	2,105,552	1,818,930	286,662	86.4
12/31/2007	1,161,432	1,221,969	964,832	2,186,801	1,924,886	261,915	88.0
@ 12/31/2008	1,211,140	1,237,613	1,017,685	2,255,298	1,733,946	521,352	76.9
12/31/2009	1,208,093	1,264,675	1,049,607	2,314,282	1,769,540	544,742	76.5
# 12/31/2009	1,208,093	1,314,885	1,024,984	2,339,869	1,769,540	570,329	75.6
12/31/2010	1,191,290	1,355,093	1,028,968	2,384,061	1,822,603	561,458	76.5
* 12/31/2011	1,246,973	1,401,877	1,069,087	2,470,964	1,866,952	604,012	75.6
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	1,373,096	1,590,489	1,290,214	2,880,703	2,188,037	692,666	76.0
*# 12/31/2016	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

@ After change in asset valuation method.

* After change in benefits.

After changes in actuarial assumptions.

BENEFIT DEDUCTIONS FROM NET POSITION BY TYPE

Last 10 Years

Fiscal Years	SERVICE BENEFITS			DEATH BENEFITS		DISABILITY BENEFITS		NON-DUTY		TOTAL		
	NORMAL		EARLY		DUTY/NON-DUTY		DUTY		PARTICI- PANTS			
	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT				
2011	4,717	\$104,792,727	3,990	\$41,654,507	160	\$1,276,445	22	\$300,684	189	\$1,021,679	9,078	\$149,046,042
2012	4,999	106,487,568	4,050	45,946,862	171	1,341,323	21	276,421	177	989,588	9,418	155,041,762
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
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
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
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
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
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
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
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

BENEFIT REFUNDS BY TYPE

Last 10 Years

FISCAL YEAR	SEPARATION		DEATHS		TOTAL	
	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT
2011	725	\$ 4,046,929	26	\$ 211,104	751	\$ 4,258,033
2012	659	3,934,877	26	360,294	685	4,295,171
2013	634	4,081,157	19	338,649	653	4,419,806
2014	727	5,164,862	40	608,097	767	5,772,959
2015	718	5,300,442	22	396,869	740	5,697,311
2016	521	4,271,678	27	354,379	548	4,626,057
2017	465	4,392,979	16	208,886	481	4,601,865
2018	427	4,089,420	39	578,415	466	4,667,835
2019	432	4,094,919	32	407,805	464	4,502,724
2020	373	3,738,364	42	660,981	415	4,399,345

RETIRED MEMBERS BY TYPE OF BENEFIT

(As of December 31, 2019)

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	1,943	640	1,254	24	20	5	1,446	141	4	49	49	254
251–500	2,523	1,301	1,093	27	95	7	1,880	261	4	102	50	225
501–750	1,332	826	457	12	34	3	962	131	9	59	34	138
751–1,000	915	622	282	4	7	0	586	65	4	54	14	192
1,001–1,250	1,090	729	350	6	5	0	652	49	16	71	7	295
1,251–1,500	960	731	224	4	2	0	654	56	10	45	13	182
1,501–1,750	692	551	138	0	3	0	450	34	6	44	6	152
1,751–2,000	590	500	88	1	1	0	371	33	5	41	6	134
Over 2,000	2,437	2,066	366	2	0	3	1,516	139	18	186	27	551
TOTAL	12,482	7,966	4,252	79	167	18	8,517	909	76	651	206	2,123

*** 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

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

AVERAGE BENEFIT PAYMENTS BY YEARS OF SERVICE

	YEARS CREDITED SERVICE					
	5-10	10-15	15-20	20-25	25-30	30+
RETIREMENT EFFECTIVE DATES						
Period 1/1/15 to 12/31/15						
Avg Monthly Benefit	\$ 286.55	\$ 473.64	\$ 698.48	\$ 915.92	\$ 2,109.75	\$ 2,614.66
Avg Final Average Salary	\$ 5,088.12	\$ 5,192.36	\$ 5,988.36	\$ 6,524.08	\$ 7,210.20	\$ 7,955.96
No. of Retired Members	89	123	151	79	127	100
Period 1/1/16 to 12/31/16						
Avg Monthly Benefit	\$ 258.61	\$ 506.32	\$ 576.68	\$ 882.85	\$ 2,146.62	\$ 2,563.33
Avg Final Average Salary	\$ 4,772.48	\$ 5,492.86	\$ 5,502.74	\$ 6,690.51	\$ 7,579.43	\$ 8,086.32
No. of Retired Members	105	146	128	77	120	77
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	\$ 4,748.92	\$ 5,460.84	\$ 5,939.78	\$ 6,912.77	\$ 7,777.73	\$ 8,327.61
No. of Retired Members	81	109	127	80	128	100
Period 1/1/18 to 12/31/18						
Avg Monthly Benefit	\$ 240.03	\$ 495.62	\$ 718.33	\$ 847.16	\$ 2,228.11	\$ 2,428.89
Avg Final Average Salary	\$ 4,594.82	\$ 5,504.75	\$ 6,068.43	\$ 6,605.70	\$ 7,648.54	\$ 8,131.01
No. of Retired Members	78	134	129	85	122	96
Period 1/1/19 to 12/31/19						
Avg Monthly Benefit	\$ 272.47	\$ 494.45	\$ 764.29	\$ 960.17	\$ 2,291.44	\$ 2,353.86
Avg Final Average Salary	\$ 4,886.21	\$ 5,434.61	\$ 6,260.99	\$ 6,741.99	\$ 7,772.99	\$ 8,194.45
No. of Retired Members	77	102	127	106	117	92

AVERAGE COMPOSITE MONTHLY BENEFIT PAYMENTS FOR RETIREES

Last 10 Years

BY TYPE OF BENEFIT BEING PAID

	YEAR	SERVICE RETIREMENT	REDUCED SERVICE	ORDINARY DISABILITY
Calendar Year	2010	1,727	849	495
	2011	1,717	853	492
	2012	1,688	839	570
	2013	1,626	815	575
	2014	1,557	799	583
	2015	1,523	807	579
	2016	1,478	794	595
	2017	1,462	788	594
	2018	1,436	784	606
	2019	1,421	782	614

RETIREES AND BENEFICIARIES CURRENT ANNUAL BENEFITS TABULATED BY ATTAINED AGES

(As of December 31, 2019)

ATTAINED AGES	TOTAL	
	NO.	ANNUAL AMOUNT
Under 40	3	\$ 7,864
40 - 44	4	13,897
45	1	6,840
46	1	6,102
47	2	8,396
48	3	50,100
49	7	120,679
50	6	131,076
51	10	235,819
52	11	372,328
53	25	695,254
54	66	1,694,348
55	111	2,474,950
56	123	3,321,670
57	124	2,992,147
58	135	3,510,709
59	144	4,044,279
60	267	5,877,260
61	312	7,107,665
62	366	7,700,985
63	435	8,881,846
64	522	11,143,512
65	539	5,541,266
66	608	5,838,743
67	603	5,723,326
68	656	6,731,192
69	113	663,419
70 - 74	3,264	36,636,329
75 - 79	1,997	25,681,514
80 & Up	2,024	29,476,672
GRAND TOTAL	12,482	\$ 176,690,187

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, 2019)

ATTAINED AGES	TOTAL	
	NO.	ANNUAL AMOUNT
27	6	\$ 12,066
28	18	41,775
29	54	126,766
30	84	215,034
31	105	281,007
32	136	384,411
33	164	490,502
34	162	519,555
35	178	612,958
36	207	735,256
37	210	772,449
38	238	886,209
39	238	971,620
40	236	970,655
41	221	848,172
42	183	659,058
43	180	643,029
44	168	601,884
45	177	569,506
46	177	641,859
47	156	526,258
48	197	722,997
49	176	598,895
50	159	559,725
51	149	579,421
52	152	590,496
53	138	577,075
54	125	451,255
55	112	416,496
56	106	475,868
57	108	462,087
58	122	545,839
59	118	494,553
60	57	255,759
61	41	178,901
62	39	160,548
63	31	139,092
64	20	78,048
65 & Over	77	295,308
GRAND TOTAL	5,225	\$ 19,092,392

Note: This source of information presented is from the most recent actuarial valuation report. It does not include 15 additional inactive vested members from the 1973 Plan.

This page is intentionally left blank.



ERFC IS CONTINUOUSLY SUPPORTING
ITS MEMBERS WITH RESILIENCE AND
INNOVATION SO THAT EVERY MEMBER'S
CAREER JOURNEY TO RETIREMENT IS
A PATH THAT ULTIMATELY LEADS TO
FINANCIAL FREEDOM.



KNOW YOUR PLAN



DO IT YOURSELF WITH ERFCDIRECT 24/7

- Run retirement benefit estimates
- Keep your personal information up-to-date
- Check your member statement annually
- and much more...

www.fcps.edu/erfcdirect



LOCATION

8001 Forbes Place, Suite 300
Springfield, VA 22151-2205

Office Hours
M-F 8 AM—4:30 PM



CALL

703-426-3900
1-844-758-3793



FAX

703-426-3984



EMAIL

erfcoffice@fcps.edu



WEB

www.fcps.edu/erfc
www.fcps.edu/erfcdirect



OTHER RESOURCES

FCPS HUMAN RESOURCES

Active Member Health Benefits

Search Human Resources on fcps.edu
571-423-3000 | 804-649-8059

VRS

Calculate Your Retirement Income

www.varetire.org
888-827-3847 | 800-333-1633

SOCIAL SECURITY

www.ssa.gov
800-772-1213

MEDICARE

www.medicare.gov
800-633-4227