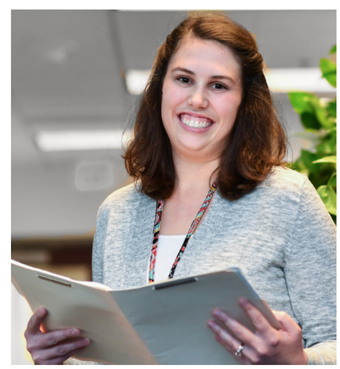
COMPREHENSIVE ANNUAL FINANCIAL REPORT

SUPPORTING SUCCESS *with fcps*



FOR THE FISCAL YEAR
ENDED JUNE 30, 2019

THE EDUCATIONAL EMPLOYEES' SUPPLEMENTARY RETIREMENT SYSTEM OF FAIRFAX COUNTY

A COMPONENT UNIT OF FAIRFAX COUNTY PUBLIC SCHOOLS

FAIRFAX, VIRGINIA

Fairfax County PUBLIC SCHOOLS
ENGAGE • INSPIRE • THRIVE

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, 2017. This was the 21st 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

Fairfax County Public Schools
Virginia

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2018

Christopher P. Morrill

Executive Director/CEO

2019 ERFC
COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2019
The Educational Employees' Supplementary Retirement System of Fairfax County

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

PREPARED BY

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

DESIGNED BY

Fairfax County Public Schools
Information Technology
Multimedia Design

ERFC
THE EDUCATIONAL EMPLOYEES' SUPPLEMENTARY RETIREMENT SYSTEM *of Fairfax County*

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

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.

PPCC

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
2019

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)

Alan H. Winkle

Alan H. Winkle
Program Administrator

INTRO DUCTION

UNAUDITED

Over time, I'm sure we've heard the stories about someone investing and giving all they had to an institution – personal or professional – to only discover that the institution would not be there for them when they needed it most.

I am happy to know and trust that as I invest in FCPS, FCPS will invest in me and be there for me when I need them most. Being a part of ERFC, the FCPS pension plan, leaves me feeling confident, smart and secure.

SHERRY HOLLAND SENTER
4-6 TEACHER
LORTON STATION ELEMENTARY

LETTER OF TRANSMITTAL

ERFC
8001 Forbes Place, Suite 300
Springfield, VA 22151

December 1, 2019

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, 2019: 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 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

LETTER OF TRANSMITTAL

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

Communication activities to increase the understanding of the value of ERFC and the total retirement program continued to receive emphasis during the fiscal year. As part of its School Outreach program, ERFC staff visited 24 schools and administrative centers, explaining to members the provisions and importance of their retirement benefits. The ERFC Ambassador Program – composed of member volunteers who distribute and guide other members to appropriate ERFC resources – increased 96% to 174 worksite ambassadors, up from 89 one year ago. Staff conducted eight training sessions for those who volunteered for the program and the ambassadors are now located at 72 elementary schools, 10 middle schools, 20 high schools and 9 administrative centers.

The ERFC staff increased its efforts to implement process enhancements that will result in improved efficiencies, cost savings and customer service. ERFC worked with Linea Solutions, specializing in change management, business process reengineering, organizational restructuring and continuous process improvement for pension organizations.

ERFC continued to promote ERFCDirect, and over 27,000 active and retired members now use the online service, up from 25,000 a year ago.

Strategic Plan and Operational Updates

ERFC staff successfully completed action items included in the 2018-2021 Strategic Plan. Two significant RFP's were completed leading to a new General Investment Consultant (Segal Marco) and a new actuary (AON), resulting in greater than $1M in Net Present Value (NPV) savings within renegotiated contracts. Succession and Staff Development Plans were successfully developed and implemented during the year, aimed at increasing the sustainability of the Plan across all organizational levels. We created a Marketing Plan using data science, which identified member segments for targeted outreach—promoting Plan awareness and supporting FCPS recruitment and retention efforts. ERFC continued to drive member communications towards simplicity and relatability. The Board of Trustees reinforced their commitment to continuous education with a Trustee Education Plan. The asset allocation was reviewed and changed, resulting in projected money manager fee savings of $17.24M over the next ten years. In addition, ERFC is lowering expected portfolio risk and increasing expected returns over the next ten years—increasing the overall probability to achieve its expected rate of return over the next 20 years.

Plan Financial Condition

LETTER OF TRANSMITTAL

The ERFC Fund earned a 4.7 percent net of fees return on investments in fiscal year 2019. For the fiscal year, ERFC underperformed its policy index by 1.9 percent, driven by slight underperformance in all asset classes, except for emerging market debt.

ERFC's independent actuary reported that the System's funding ratio decreased slightly from 75.7 percent to 74.0 percent for the valuation period ending December 31, 2018. This decrease is due to unfavorable investment performance in the prior 2018 calendar year, higher than anticipated pay increases and unfavorable demographic experience. The recommended employer contribution rate increased to 6.26 percent of payroll, from 6.24 percent, for fiscal year 2019.

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 percent net of fees for FY 2019 underperformed the benchmark index return of 6.6 percent, and the InvestorForce Public Defined Benefit (funds of $1 billion to $5 billion in assets) universe for the fiscal year with the median fund returning 5.1 percent. The Fund's longer-term return remained strong, however, with the 10-year return of 8.9 percent exceeding the policy index return of 8.5 percent.

Professional Services

The ERFC Board of Trustees appoints professional services to provide aid in the efficient management of the System. Segal Marco Advisors, based in New York, NY, provides investment consulting services, and AON/Retirement and Investment, of Washington D.C., 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 2018 Comprehensive Annual Financial Report (CAFR). This is the 22nd 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 **Public Pension Standards' 2019 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.

LETTER OF TRANSMITTAL

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

ERFC
8001 Forbes Place, Suite 300
Springfield, VA 22151

December 1, 2019

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, 2019. 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.

The months subsequent to the fiscal year-end introduced several changes to the composition of ERFC's Board and its officers. Appointed Trustee R. Chace Ramey left his position and was replaced with appointed member Helen Nixon, Assistant Superintendent, FCPS Department of Human Resources. 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.

The Board is disappointed with the 4.7 percent net of fees return on investments for the 2019 fiscal year period; however, the 10-year return of 8.9 percent was in excess of it's policy index of 8.5 percent and exceeds the assumed actuarial return rate of 7.25 percent. 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 6.24 percent of covered payroll for the 2018 fiscal year to 6.26 percent for the 2019 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 2019 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

Daryl Richards
Vice Chairperson/
Trustee
Elected Member

Leigh Burden
Treasurer/Trustee
Appointed Member

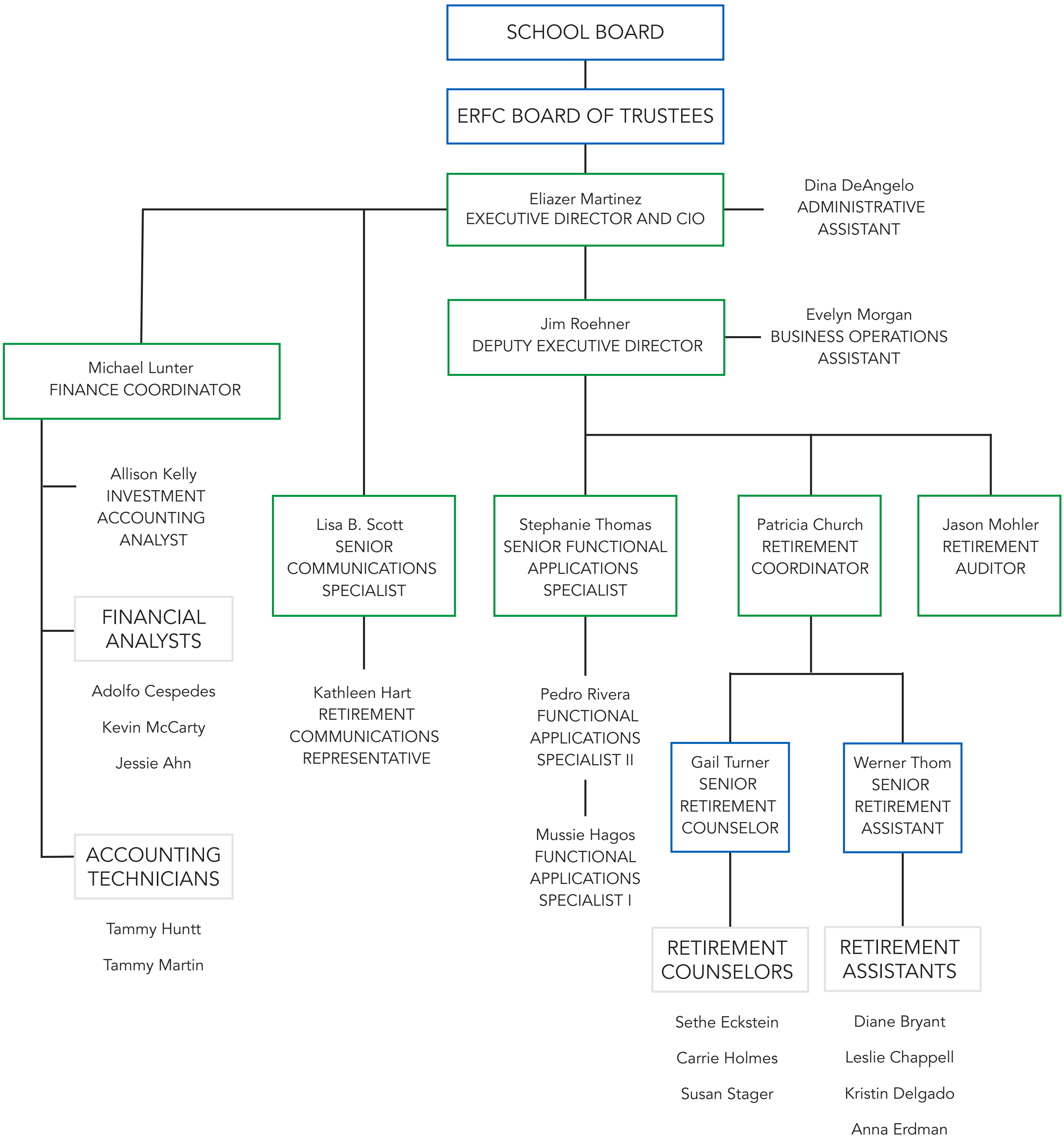
Michael Burke
Individual Trustee
Appointed Member

Marty K. Smith
Trustee
Appointed Member

Kathie Pfeffer-Hahn
Trustee
Elected Member

Helen Nixon
Trustee
Appointed Member

ERFC ADMINISTRATIVE ORGANIZATION



PROFESSIONAL SERVICES

INVESTMENT MANAGERS

DOMESTIC EQUITY

Aronson Johnson Ortiz, LP
Philadelphia, Pennsylvania

Epoch Investment Partners, Inc.
New York, New York

Lazard Asset Management
New York, New York

Mellon Capital Management Corporation
San Francisco, California

T. Rowe Price
Baltimore, Maryland

Westfield Capital Management
Boston, Massachusetts

FIXED INCOME

GAM USA, Inc.
New York, New York

J.P. Morgan Asset Management
New York, New York

Loomis-Sayles & Company
Boston, Massachusetts

Mellon Capital Management Corporation
San Francisco, California

Mondrian Investment Group, Inc.
London, England

GLOBAL ASSET ALLOCATION

Bridgewater Associates, Inc.
Westport, Connecticut

Wellington Management
Boston, Massachusetts

Pacific Investment Management Company
Newport Beach, California

HEDGE FUND

Grosvenor Institutional Partners, L.P.
Chicago, Illinois

PRIVATE EQUITY

Audax Management Company, LLC
New York, New York

Glouston Capital Partners
Boston, Massachusetts

Harbourvest Partners, LLC
Boston, Massachusetts

Lexington Partners
New York, New York

Newstone Capital Partners, LLC
Los Angeles, California

Private Advisors
Richmond, Virginia

INTERNATIONAL EQUITY

Acadian Asset Management
Boston, Massachusetts

Causeway Capital Management, LLC
Los Angeles, California

William Blair and Company, LLC
Chicago, Illinois

REAL ESTATE

Landmark Partners
New York, New York

JP Morgan Asset Management
New York, New York

PGIM Real Estate
Madison, New Jersey

CenterSquare Investment Management
Plymouth Meeting, Pennsylvania

UBS Realty Investors, LLC
Hartford, Connecticut

OTHER SERVICE PROVIDERS

ACTUARY

Gabriel, Roeder, Smith & Company
Southfield, Michigan

Aon Retirement & Investment
Washington, D.C.

AUDITOR

Cherry Bekaert LLP
Certified Public Accountants
Richmond, Virginia

INVESTMENT CONSULTANT

New England Pension Consultants
Boston, Massachusetts

Segal Marco Advisors
New York, NY

LEGAL COUNSEL

Bredhoff & Kaiser, P.L.L.C.
Washington, D.C.

Groom Law Group, Chartered
Washington, D.C.

Reed Smith LLP
McLean, Virginia

MASTER CUSTODIAN

BNY Mellon
Pittsburgh, Pennsylvania

The Schedule of Brokerage Commissions can be found on page 50.

The Schedule of Investment Management Fees can be found on page 52.

FINANCIAL

With stars in my eyes as I embarked on my teaching career with FCPS, my pension was not on my radar. I was familiar with the term because both of my working parents were beneficiaries of this type of savings plan. Passionately charged with a plethora of teaching opportunities, financial matters were simply not a priority for me. I was too busy learning, creating, and collaborating. Older colleagues and my mom would randomly remind me what a huge benefit would be awaiting me upon my retirement.

Well, after 32 years of a comprehensively exhilarating career – academically, during the school year; artistically, during the summers teaching dance at the IFTA, I transitioned across the bridge to begin Act II. Although I trusted my mom and FCPS, I had no idea what my pension truly meant. I nervously awaited that first post teaching deposit and was comforted when it arrived! As the months melted away, I was able to breathe more fully. I celebrated the many years I had labored and was eternally grateful for the financial wizardry working behind the scenes.

My Act II involves attaining certifications and teaching Pilates, traveling and enjoying the Arts. As a lifelong learner, I am most grateful for this financial nest egg. Each and every day, it is such a comfort!

MAUREEN CULHANE
RETIRED TEACHER

REPORT OF INDEPENDENT AUDITOR

Cherry Bekaert LLP
CPAs & Advisors

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, 2019, 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, 2019, and the changes in fiduciary net position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

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 14, 2019, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is 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.

Cherry Bekaert LLP

Tysons Corner, Virginia
November 14, 2019

FINANCIAL

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, 2019. 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 2019 the net-of-fees return on ERFC's assets was 4.7 percent[1]. This resulted in a total net position value of $2.521 billion, which reflects an increase of $75.2 million over fiscal year 2018's year end total (as reflected in the accompanying chart). Additional detail on this net increase in fund value is outlined in the Summary of Additions and Deductions table contained within this Financial Section. As shown, it is comprised of four major components. They include $117.7 million in investment gains and $143.6 million in employee and employer contributions. The net addition is offset by $177.4 million in retiree benefit payments and $8.8 million in member refunds and administrative expenses.

ERFC's time-weighted 4.7 percent net-of-fees return trailed the policy benchmark return of 6.6 percent[2]. Three, five, and ten year returns are 8.3 percent, 5.1 percent, and 8.9 percent, respectively. The time-weighted rate of return measures the compound growth rate of the System's investments, net of investment expense. This method eliminates the distortion caused by cash inflows and outflows and is the industry standard for comparing investment returns to a benchmark. The time-weighted rate of return differs from the money-weighted rate of return described in the Notes to the Financial Statements.

The System's investments are exposed to various risks such as interest rate, market, and credit risks. Such risks, and the resulting investment security values, may be influenced by changes in economic conditions and market perceptions and expectations. Accordingly, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements. Additional detail regarding investment results can be found in the Investment Section of this report.

ERFC FUND BALANCES ($ IN MILLIONS)

FISCAL YEAR	ENDING BALANCE	NET CHANGE	
		DOLLARS	PERCENT
2015	$ 2,179.7	(25.2)	(1.1)
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

At December 31, 2018, the actuarial value of assets totaled $2.466 billion while liabilities totaled $3.334 billion. This resulted in a funding ratio of 74 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 Segal Marco Advisors.

2 Policy Index benchmark is 16.5% Russell 1000, 6.0% Russell 2000, 14% MSCI ACWI Ex-US,3% MSCI Emerging Markets, 4.0% NAREIT, 4.0% NCREIF, 18% BBgBarc Aggregate, 4.0% BBgBarc Credit, 4.0% BBgBarc Long Credit, 7.5% MS World Net, 7.5% Citi World Govt Bond, 5.0% HFRI FoF, 3.5% Venture Economics P.E.,3% JPM GBI EM.

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 net position. Ultimately, increases or decreases in 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 net position changed during the current fiscal year. Additions and deductions represent revenues and expenses, respectively. Additions minus deductions represent the change in 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.

FINANCIAL

SUMMARY OF FIDUCIARY NET POSITION

	JUNE 30, 2019	JUNE 30,2018	VARIANCE
ASSETS			
Total cash and investments	$ 2,661,830,887	$ 2,579,998,120	$ 81,832,767
Total receivables	11,919,565	5,972,204	5,947,361
Other assets	43,010	39,369	3,641
TOTAL ASSETS	**2,673,793,462**	**2,586,009,693**	**87,783,769**
LIABILITIES			
Capital leases	12,455	21,107	(8,652)
Accounts payable	2,095,788	1,992,441	103,347
Securities purchased	6,606,218	3,928,604	2,677,614
Securities lending collateral	143,637,529	133,787,644	9,849,885
TOTAL LIABILITIES	**152,351,990**	**139,729,796**	**12,622,194**
TOTAL NET POSITION RESTRICTED FOR PENSIONS	**$ 2,521,441,472**	**$ 2,446,279,897**	**$ 75,161,575**

MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

FINANCIAL STATEMENTS

As indicated in the Summary of Fiduciary Net Position, the System's net position value increased $75.2 million or 3.1 percent in fiscal year 2019. The changes in assets and liabilities underlying this change consist of an increase of $81.8 million in the value of investments, an increase in receivables of $5.9 million, a $2.7 million increase in the value of payables and an increase of $9.8 million in securities lending collateral liabilities.

As reflected in the Summary of Additions and Deductions (below), the net change is due to $143.6 million in contributions and $117.7 million in net investment gains, which is offset by $177.4 million in benefits, $4.5 million in refunds and $4.3 million in expenses.

Also presented in the Summary of Additions and Deductions, additional information is provided regarding the differences between the fiscal year 2018 and 2019 results. These differing results are due mainly to a decrease in investment income of $70.4 million and an increase in contributions of $7.7 million, offset by an increase in benefits of $4.4 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 ADDITIONS AND DEDUCTIONS

	JUNE 30, 2019	JUNE 30,2018	VARIANCE
ADDITIONS			
Contributions			
Employer	$ 96,982,911	$ 91,704,877	$ 5,278,034
Member	46,645,396	44,169,100	2,476,296
Net investment income	117,727,500	188,145,489	(70,417,989)
TOTAL ADDITIONS	**261,355,807**	**324,019,466**	**(62,663,659)**
DEDUCTIONS			
Benefits	177,422,308	173,052,461	4,369,847
Refunds	4,509,765	4,667,835	(158,070)
Admin. Expenses	4,262,159	4,300,927	(38,768)
TOTAL DEDUCTIONS	**186,194,232**	**182,021,223**	**4,173,009**
NET INCREASE IN NET POSITION	**$ 75,161,575**	**$ 141,998,243**	**$ (66,836,668)**

STATEMENT OF FIDUCIARY NET POSITION

(As of June 30, 2019)

ASSETS

CASH AND SHORT-TERM INVESTMENTS	
Cash	$ 2,654,854
Cash with fiscal agent	400,175
Cash collateral for securities on loan	143,637,529
Short-term investments	63,034,618
TOTAL CASH AND SHORT-TERM INVESTMENTS	**209,727,176**
RECEIVABLES	
Interest and dividends	3,809,682
Securities sold	8,109,883
TOTAL RECEIVABLES	**11,919,565**
INVESTMENTS AT FAIR VALUE	
Stocks	670,619,312
Fixed Income	
Asset and Mortgage Backed	1,153,618
Corporate Bonds	59,556,544
International Bonds	18,620,528
Convertible Securities	4,120,335
U.S. Government Obligations	20,877,635
Preferred Securities	5,189,750
Real Estate	218,025,785
Global Asset Allocation	247,355,510
Better Beta	130,756,594
Hedge Fund of Funds	117,526,120
Private Equity Funds	115,300,063
Commingled Fixed Income Funds	575,050,619
Commingled Equity Funds	267,951,298
TOTAL INVESTMENTS	**2,452,103,711**
PREPAID	
Prepaid expenses	4,772
OTHER ASSETS	
Furniture and equipment	149,576
Accumulated depreciation	(111,338)
TOTAL OTHER ASSETS	**38,238**
TOTAL ASSETS	**2,673,793,462**

LIABILITIES

Capital leases	12,455
Accounts payable	2,095,788
Securities purchased	6,606,218
Securities lending collateral	143,637,529
TOTAL LIABILITIES	**152,351,990**
NET POSITION RESTRICTED FOR PENSIONS	**$ 2,521,441,472**

See accompanying Notes to the Financial Statements

FINANCIAL

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

(For the Fiscal Year Ending June 30, 2019)

ADDITIONS	
Contributions	
Employer	$ 96,982,911
Plan members	46,645,396
TOTAL CONTRIBUTIONS	**143,628,307**
Investment income	
Net appreciation in fair value of investments	96,217,852
Interest and dividends	30,432,169
Real estate income	4,227,412
TOTAL INVESTMENT INCOME	**130,877,433**
Less investment expenses	
Investment management fees	12,983,544
Investment consulting fees	345,535
Investment custodial fees	190,626
Investment salaries	248,470
TOTAL INVESTMENT EXPENSES	**13,768,175**
Income from securities lending activities	
Securities lending income	3,849,455
Securities lending management fees	(3,231,213)
NET SECURITIES LENDING INCOME	**618,242**
NET INVESTMENT INCOME	**117,727,500**
TOTAL ADDITIONS	**261,355,807**
DEDUCTIONS	
Benefits	177,422,308
Refunds	4,509,765
Administrative expense	4,262,159
TOTAL DEDUCTIONS	**186,194,232**
NET INCREASE	**75,161,575**
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS	
BEGINNING OF YEAR	**2,446,279,897**
END OF YEAR	**$ 2,521,441,472**

See accompanying Notes to the Financial Statements

NOTES TO THE FINANCIAL STATEMENTS

(For The Fiscal Year Ending June 30, 2019)

The Educational Employees' Supplementary Retirement System of Fairfax County (ERFC, 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. Effective July 1, 2001, 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, 2018, the date of the most recent actuarial valuation, the System's membership consisted of:

Retirees and beneficiaries currently receiving benefits	12,101
Terminated employees entitled to benefits but not yet receiving them	4,996
Active plan members	22,048
TOTAL	**39,145**

ERFC and *ERFC 2001* provide for a variety of benefit payment types. *ERFC's* payment types include Service Retirement, Reduced Service, Disability, Death-in-Service, and Deferred Retirement. *ERFC 2001's* payment types include Service Retirement, Death-in-Service, and Deferred Retirement.

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NOTES TO THE FINANCIAL STATEMENTS

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 unit 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 include investments in money market-type securities reported at cost, which approximates 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.

Matrix pricing is used to value securities based on the securities relationship to benchmark quoted prices. Bid evaluations may include reported trades,

***Notes,** continued on next page*

NOTES TO THE FINANCIAL STATEMENTS

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 this index fund is to invest in securities and collective funds that together are designed to track the performance of the Russell 1000®.

- **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.

- **Commingled Domestic Fixed Income Funds**
  One fund in this type is an index fund that invests in securities and collective funds that together are designed to track the performance of the Bloomberg Barclays US Aggregate Index. The other fund in this type seeks a high level of current income by investing primarily in a diversified portfolio of high-, medium-, and low-grade debt securities.

- **Commingled Emerging Markets Debt Funds**
  This fund invests in fixed income securities of "emerging" or developing countries to achieve

Notes, *continued on next page*

INVESTMENTS MEASURED BY FAIR VALUE HIERARCHY LEVEL

		FAIR VALUE MEASURES USING		
		QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS	SIGNIFICANT OTHER OBSERVABLE INPUTS	SIGNIFICANT UNOBSERVABLE INPUTS
INVESTMENTS BY FAIR VALUE LEVEL	6/30/19	LEVEL 1	LEVEL 2	LEVEL 3
Short-term securities	$ 63,034,618	$ 44,731,589	$ 18,303,029	$ -
Debt securities				
Asset and mortgage backed	1,153,618	-	1,153,618	-
Corporate bonds	59,556,544	-	59,556,544	-
International bonds	18,620,528	-	18,620,528	-
Convertible securities	4,120,335	449,917	3,670,418	-
US Government obligations	20,877,635	20,877,635	-	-
TOTAL DEBT SECURITIES	**104,328,660**	**21,327,552**	**83,001,108**	**-**
Equity investments				
Basic industries	108,953,660	108,953,660	-	-
Consumer services	227,782,724	227,782,724	-	-
Financial industries	129,060,221	129,060,221	-	-
REITS	12,278,378	12,278,378	-	-
Technology	178,037,943	178,037,943	-	-
Utilities	14,506,386	14,506,386	-	-
Preferred securities	5,189,750	5,077,100	112,650	
TOTAL EQUITY INVESTMENTS	**675,809,062**	**675,696,412**	**112,650**	**-**
TOTAL INVESTMENT AND SHORT-TERM SECURITIES MEASURED BY FAIR VALUE HIERARCHY LEVEL	**$ 843,172,340**	**$ 741,755,553**	**$ 101,416,787**	**$ -**

NOTES TO THE FINANCIAL STATEMENTS

high current income and long-term capital growth.

- **Commingled Unconstrained Fixed Income Funds**
  The funds in this type invests in all types of U.S. and non-U.S. fixed income securities in any market (including emerging markets), across a global range of credit, currencies and interest rates to seek positive absolute returns.
- **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, 2019, 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.
- **Commingled Real Estate Equity Funds**
  One of the funds in this category actively manages a core portfolio of U.S. equity real

Notes, *continued on next page*

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

	6/30/19	UNFUNDED COMMITMENTS	REDEMPTION FREQUENCY	REDEMPTION NOTICE PERIOD
Equity investments				
Commingled large cap equity funds	$ 147,559,747	$ -	Daily	None
Commingled emerging markets equity funds	120,391,551	-	Daily	3 days
TOTAL EQUITY INVESTMENTS MEASURED AT THE NAV	**267,951,298**	**-**		
Fixed income investments				
Commingled domestic fixed income funds	392,040,443	-	Daily	None
Commingled emerging markets debt funds	90,019,057	-	Monthly	30 days
Commingled unconstrained fixed income funds	92,991,119	-	Daily, Semi-monthly	1-30 days
TOTAL FIXED INCOME INVESTMENTS MEASURED AT THE NAV	**575,050,619**	**-**		
Private equity - private equity partnership funds	115,300,063	100,777,393	Not eligible	N/A
Global asset allocation - commingled GAA funds	247,355,510	-	Daily, monthly	1-30 days
Better beta - commingled better beta funds	130,756,594	-	Monthly	5 days
Real estate - commingled real estate equity funds	209,700,721	-	Daily, quarterly	1-90 days
Real estate - private real estate fund	8,325,064	29,422,354	Not eligible	N/A
Absolute return - commingled absolute return funds	117,526,120	-	Monthly	30 days
TOTAL INVESTMENTS MEASURED AT THE NAV	**$1,671,965,989**	**$ 130,199,747**		
TOTAL INVESTMENTS AND SHORT-TERM SECURITIES	**$2,515,138,329**			

NOTES TO THE FINANCIAL STATEMENTS

estate investments to maximize income. The second fund in this category maximizes total return by investing primarily in global, publicly traded companies whose principal business is the ownership, management and/or development of income producing and for-sale real estate properties. The third 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 fourth 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.

- **Commingled Absolute Return Funds**
  The fund in this category invests in actively managed funds which invest in a broad range of securities and alternative investments across global markets. The fund seeks to provide high absolute and risk-adjusted returns.

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, 2019, the cash balance of $2,654,854 represents funds that could not be invested in the County's enhanced cash fund until July 1, 2019.

The bank balance of the County's public deposits was either insured by the Federal Deposit Insurance Corporation or through the State Treasury Board pursuant to the provisions of the Security for Public Deposit Act. As of June 30, 2019, cash with the fiscal agent totaled $400,175. 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 6.26 percent for fiscal year 2019. 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, 2015 valuation recommended that the contribution rate for the two-year period beginning July 1, 2017 to June 30, 2019 be increased from 5.6 to 6.24 percent. However, the December 31, 2016 valuation resulted in an actuarially determined rate of 6.26%, which the Board of Trustees elected to implement for the fiscal year ending June 30, 2019.

3. NET PENSION LIABILITY DISCLOSURES

The components of ERFC's net pension liability at June 30, 2019 were as follows:

Actuarial Assumptions

Total Pension Liability	$3,406,340,888
Plan Fiduciary Net Position	2,521,441,472
Net Pension Liability	$ 884,899,416
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	74.02 %

Notes, *continued on next page*

NOTES TO THE FINANCIAL STATEMENTS

The total pension liability was determined by an actuarial valuation as of December 31, 2018, 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%. 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.

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METHODS AND ASSUMPTIONS USED TO DETERMINE FY 2019 TOTAL PENSION LIABILITY:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	21 years from July 1, 2019.
Asset Valuation Method	5-Year smoothed market; 25.0% corridor
Inflation	2.75%–approximate; No explicit price inflation assumption is used in this valuation.
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

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.

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%
$1,280,034,959	**$884,819,416**	**$489,763,873**

4. INVESTMENTS

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

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

Investment Policy
The System'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

Notes, *continued on next page*

ASSET ALLOCATION

ASSET CLASS	LONG-TERM EXPECTED REAL RATE OF RETURN
Domestic Equity (Large Cap)	6.2%
Domestic Equity (Mid Cap)	6.8%
Domestic Equity (Small)	7.3%
International Equity	7.0%
Emerging International Equity	9.9%
Global REITS	5.9%
Core US Fixed Income	2.0%
Emerging Market Debt	4.7%
Multi-Asset Class Strategies	5.2%
Hedge Funds	3.8%
Real Estate (Core)	4.8%
Private Equity	10.4%

FINANCIAL

NOTES TO THE FINANCIAL STATEMENTS

SECURITY CLASS	STRATEGIC TARGETS AS OF JUNE 30, 2019
Domestic Large Cap Equity	16.5 %
Domestic Small Cap Equity	6.0
International Equity	17.0
Real Estate	8.0
Fixed Income	29.0
Global Asset Allocation/ Better Beta	15.0
Absolute Return	5.0
Private Equity	3.5
Cash	-
TOTAL	**100.0 %**

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 above.

Rate of Return

For the year ended June 30, 2019, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 4.88% percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. This method differs from the time-weighted rate of return calculation referenced at the beginning of the Management Discussion and Analysis, which is performed on a gross basis.

Derivative Financial Instruments

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

The System had indirect investments in derivatives through its ownership interest in the Better Beta fund, one Private Equity manager, two of the Real Estate managers, three of the fixed income managers, and one of the Global Asset Allocation managers. These portfolios are commingled funds in which ERFC has a percentage ownership. Derivatives in these portfolios consisted of interest rate swaps and caps, 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, 2019, exposure to interest rate swaps was $(24,627,795), exposure to interest rate

Notes, *continued on next page*

NOTES TO THE FINANCIAL STATEMENTS

caps was $2,127,551, exposure to futures contracts was $12,629,970, exposure to NDFs was $185,858, exposure to forward commodity contracts was $1,101,129 exposure to currency forward contracts was $8,435,870, exposure to options was $61,211, exposure to CDS was $72,456 and exposure to total return swaps was (17,876).

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

Interest Rate Risk

Three of ERFC's five fixed income managers use the modified duration method to control interest rate risk. The other two fixed income managers use the effective duration method. 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 utilizing the effective duration method 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.

As of June 30, 2019, the System had four active fixed income managers and one passive fixed income manager. 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.

***Notes,** continued on next page*

INVESTMENT COMBINED DURATION AS OF JUNE 30, 2019

INVESTMENT CATEGORY	AMOUNT	EFFECTIVE DURATION	PERCENTAGE OF FIXED
Asset Backed	$ 1,153,618	5.99	1.1%
Convertible Securities	4,120,335	3.36	3.9%
Corporate Bonds	59,556,544	5.74	57.1%
International Bonds	18,620,528	5.87	17.9%
US Government Obligations	20,877,635	10.54	20.0%
TOTAL	**$ 104,328,660**	**6.63**	**100.00%**

* Weighted Duration in years: 6.63

SHORT-TERM			
Short-term Investment Funds	$ 18,303,029	0.00	
US Treasury Bills	44,731,589	0.22	
TOTAL SHORT-TERM	**$ 63,034,618**		

FINANCIAL

NOTES TO THE FINANCIAL STATEMENTS

CREDIT QUALITY SUMMARY

As of June 30, 2019

INVESTMENT TYPE	AMOUNT	RATING	PERCENT OF FIXED
US Government Obligations	$ 20,877,635	AAA	20.1%
Asset and Mortgage Backed	1,153,618	A	1.1%
Convertible Securities	303,134	A	0.3%
	710,346	BBB	0.7%
	2,628,460	BB	2.5%
	478,395	CCC	0.5%
Corporate Bonds	1,861,738	AAA	1.8%
	3,261,634	AA	3.1%
	15,369,679	A	14.7%
	20,758,366	BBB	19.9%
	13,206,361	BB	12.7%
	5,098,766	B	4.9%
International Bonds	1,493,649	AAA	1.4%
	149,774	AA	0.1%
	5,548,944	A	5.3%
	3,897,713	BBB	3.7%
	5,315,778	BB	5.1%
	2,214,670	B	2.1%
TOTAL FIXED INCOME	**$ 104,328,660**		**100.0%**
SHORT-TERM			
Short-term Investment Funds	18,303,029	Unrated	
US Treasury Bills	44,731,589	AAA	
TOTAL SHORT-TERM	**$ 63,034,618**		

Notes, *continued on next page*

NOTES TO THE FINANCIAL STATEMENTS

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, 2019, and as addressed previously, the System had four active fixed income managers and one passive fixed income manager. The active manager portfolios had values of $224.6 million, $21.2 million, $258.2 million and $90.0 million. The indexed portfolio had a value of $133.8 million. The fair value of the largest issue other than the U.S. Government in the portfolios of the active managers, excluding pooled funds, was only 2.39 percent of that portfolio.

Deposits
At June 30, 2019, short-term investments with the custodial bank totaled $63,034,618. These investments 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.

Notes, *continued on next page*

FINANCIAL

SUMMARY OF SECURITY LENDING JUNE 30, 2019

SECURITIES	FAIR VALUE	CASH COLLATERAL
Domestic corporate bonds	$ 20,510,387	$ 21,161,921
International stock	1,687,542	1,756,665
Domestic stock	97,158,122	99,371,443
US Government	20,912,086	21,347,500
TOTAL	**$ 140,268,137**	**$ 143,637,529**

NOTES TO THE FINANCIAL STATEMENTS

Cash received as collateral and the related liability of $143,637,529 as of June 30, 2019, are shown on the Statement of Fiduciary Net Position. As of June 30, 2019, the fair value of securities on loan for cash collateral was $140,268,137. 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.

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.

Notes, *continued on next page*

INVESTMENTS WITH THE CUSTODIAN

AS OF JUNE 30, 2019, INCLUDED THE FOLLOWING:

INVESTMENT TYPE	FAIR VALUE
Stocks	$ 670,619,312
Bonds and Mortgage Securities	83,451,025
US Government Obligations	20,877,635
Preferred Securities	5,189,750
Real Estate	218,025,785
Global Asset Allocation	247,355,510
Better Beta	130,756,594
Hedge Fund of Funds	117,526,120
Private Equity	115,300,063
Commingled Fixed Income Funds	575,050,619
Commingled Equity Funds	267,951,298
SUBTOTAL INVESTMENTS	**2,452,103,711**
Cash collateral for securities on loan	143,637,529
TOTAL	**$ 2,595,741,240**

NOTES TO THE FINANCIAL STATEMENTS

FAIR VALUE OF FOREIGN CURRENCY RISK

As of June 30, 2019

CURRENCY	CASH & CASH EQUIVALENTS	EQUITY	FIXED INCOME SECURITIES	PREFERRED SECURITIES	PRIVATE EQUITY	GRAND TOTAL
AUSTRALIAN DOLLAR	$ 35,899	$ 11,044,666	$ -	$ -	-	$ 11,080,565
BRAZIL REAL	3,988	2,708,482	-	254,214	-	2,966,684
CANADIAN DOLLAR	181,023	24,064,642	765,186	-	-	25,010,851
CHILEAN PESO	-	1,162,271	-	-	-	1,162,271
CHINESE YUAN RENMINBI	48,720	-	-	-	-	48,720
DANISH KRONE	61,809	6,859,660	-	-	-	6,921,469
EURO CURRENCY UNIT	560,839	69,541,700	-	4,651,385	4,400,265	79,154,189
HONG KONG DOLLAR	167,968	17,860,944	-	-	-	18,028,912
INDONESIAN RUPIAH	2,338	20,198	-	-	-	22,536
ISRAELI SHEKEL	1,452	808,708	-	-	-	810,160
JAPANESE YEN	210,154	41,239,563	-	-	-	41,449,717
MALAYSIAN RINGGIT	2,288	2,743,385	-	-	-	2,745,673
MEXICAN PESO	28,638	1,017,317	2,209,444	-	-	3,255,399
NEW TAIWAN DOLLAR	4,029	2,773,906	-	-	-	2,777,935
NEW ZEALAND DOLLAR	2,364	509,470	-	-	-	511,834
NORWEGIAN KRONE	28,046	1,690,850	1,111,202	-	-	2,830,098
PHILIPPINES PESO	3,962	-	-	-	-	3,962
POLISH ZLOTY	521	164,618	-	-	-	165,139
POUND STERLING	169,913	48,614,272	-	-	-	48,784,185
QATARI RIYAL	11,540	307,299	-	-	-	318,839
RUSSIAN RUBLE (NEW)	558	-	-	-	-	558
SINGAPORE DOLLAR	561	1,423,915	-	-	-	1,424,476
SOUTH AFRICAN RAND	5,716	1,447,899	-	-	-	1,453,615
SOUTH KOREAN WON	21,196	10,135,901	-	62,532	-	10,219,629
SWEDISH KRONA	13,915	5,990,110	-	-	-	6,004,025
SWISS FRANC	554,582	18,250,801	-	-	-	18,805,383
THAILAND BAHT	(13,530)	3,265,816	-	-	-	3,252,286
TURKISH LIRA	10,379	3,591,704	-	-	-	3,602,083
UAE DIRHAM	-	69,137	-	-	-	69,137
GRAND TOTAL	**$2,118,868**	**$277,307,234**	**$4,085,832**	**$4,968,131**	**$4,400,265**	**$292,880,330**

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, 2015 valuation determined the contribution rates for fiscal years 2018 and 2019.

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, 2018. 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, 2019. 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
2010	$ 35,146,816	$ 37,868,623	$ (2,721,807)	$ 1,183,394,469	3.20%
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%

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

REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

FY ENDING JUNE 30	2019	2018	2017	2016	2015
Total pension liability					
Service Cost	$ 90,633,074	$ 88,599,697	$ 78,925,763	$ 77,760,915	$ 77,493,999
Interest on the Total Pension Liability	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	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	(181,932,073)	(177,720,296)	(173,385,583)	(170,347,847)	(167,842,576)
Net Change in Total Pension Liability	167,904,598	144,126,973	157,208,562	147,873,327	91,538,806
Total Pension Liability - Beginning	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)	3,406,340,888	$ 3,238,436,290	$3,094,309,317	$2,937,100,755	$2,789,227,428
Plan Fiduciary Net Position					
Contributions - Employer	96,982,911	$ 91,704,877	$ 80,094,538	$ 76,599,695	$ 74,324,396
Contributions - Member	46,645,396	44,169,100	43,062,632	41,383,642	39,982,963
Net Investment Income	117,727,500	188,145,489	250,981,777	(15,766,967)	32,083,908
Benefit Payments, including refunds of employee contributions	(181,932,073)	(177,720,296)	(173,385,583)	(170,347,847)	(167,842,576)
Pension Plan Administrative Expense	(4,262,159)	(4,300,927)	(4,059,408)	(4,004,882)	(3,751,825)
Net Change in Plan Fiduciary Net Position	75,161,575	141,998,243	196,693,956	(72,136,359)	(25,203,134)
Plan Fiduciary Net Position - Beginning	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)	2,521,441,472	2,446,279,897	2,304,281,654	2,107,587,698	2,179,724,057
Net Pension Liability - Ending (a) - (b)	$ 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	74.02%	75.54%	74.47%	71.76%	78.15%
Covered Payroll	$ 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	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 INVESTMENT RETURNS

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%

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

- 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.

FINANCIAL

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF ADMINISTRATIVE EXPENSES

Year Ended June 30, 2019

PERSONNEL SERVICES	
Salaries and wages	$ 2,073,191
Retirement contributions	511,843
Insurance	367,790
Social security	166,972
TOTAL PERSONNEL SERVICES	**3,119,796**
PROFESSIONAL SERVICES	
Actuarial	135,188
Legal	185,124
Payroll disbursement	52,906
Plan automation support	145,148
Strategic planning	102,000
Audit	54,718
TOTAL PROFESSIONAL SERVICES	**675,084**
COMMUNICATIONS	
Printing	18,836
Postage	926
TOTAL COMMUNICATIONS	**19,762**
SUPPLIES	
Office supplies	14,809
Dues and subscriptions	9,354
TOTAL SUPPLIES	**24,163**
OTHER SERVICES AND CHARGES	
Board travel and staff development	46,518
Equipment	12,716
Building rent	300,702
Depreciation expense and asset disposal	41,906
Miscellaneous	21,512
TOTAL OTHER SERVICES AND CHARGES	**423,354**
TOTAL ADMINISTRATIVE EXPENSES	**$ 4,262,159**

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF INVESTMENT EXPENSES

Year Ended June 30, 2019

INVESTMENT MANAGEMENT FEES	
Fixed income managers	
Loomis-Sayles and Company, L.P.	$ 758,908
GAM USA, Inc.	(5,643)
J.P. Morgan Asset Management	634,016
Mellon Capital Management Corporation	25,136
Mondrian Investment Partners (US), Inc.	435,859
Equity managers	
Epoch Investment Partners, Inc.	342,239
Lazard Asset Management	360,546
Mellon Capital Management Corporation	25,306
T. Rowe Price Associates, Inc.	478,388
Westfield Capital Management	336,536
International managers	
Acadian Asset Management, Inc.	706,488
Causeway Capital Management, LLC	567,568
William Blair & Company	926,271
Real Estate managers	
J.P. Morgan Asset Management	619,063
Landmark Real Estate Partners LP	399,345
Prudential Financial	357,779
UBS Realty Investors, LLC	319,948
CenterSquare Investment Management	543,579
Global Asset Allocation managers	
Pacific Investment Management Company	1,031,910
Wellington Management Company LLP	761,030
Better Beta	
Bridgewater Associates	575,481
Hedge fund of funds	
Grosvenor Capital Management, L.P.	1,039,248
Private equity	
Audax Mezzanine Fund III, L.P.	44,795
HarbourVest Partners IX - Buyout Fund L.P.	138,694
HarbourVest Partners IX - Credit Fund L.P.	73,304
HarbourVest Partners IX - Venture Fund L.P.	124,096
HarbourVest Partners X - Buyout Fund L.P.	346,285
HarbourVest Partners X - Venture Fund L.P.	150,052
HIPEP VII Partnership Fund L.P.	150,508
HIPEP VIII Partnership Fund L.P.	80,448
Lexington Capital Partners VII L.P.	37,531
Lexington Capital Partners VIII L.P.	119,430
Newstone Capital Partners II, L.P.	7,160
Glouston Private Equity Opportunities IV, L.P.	49,499
Glouston Private Equity Opportunities V, L.P.	93,752
Private Advisors Buyout Fund IV, L.P.	65,813
Private Advisors Buyout Fund V, L.P.	83,176
Private Advisors Buyout Fund VIII, L.P.	180,000
TOTAL INVESTMENT MANAGEMENT FEES	**12,983,544**
Other investment service fees	
Custodial fees - Mellon Trust	190,626
Investment consultant fees - New England Pension Consulting, Inc.	246,776
Investment consultant fees - Segal Marco Advisors	98,759
Investment salaries	248,470
TOTAL OTHER INVESTMENT SERVICE FEES	**784,631**
TOTAL INVESTMENT EXPENSES	**$ 13,768,175**

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF PROFESSIONAL SERVICE FEES

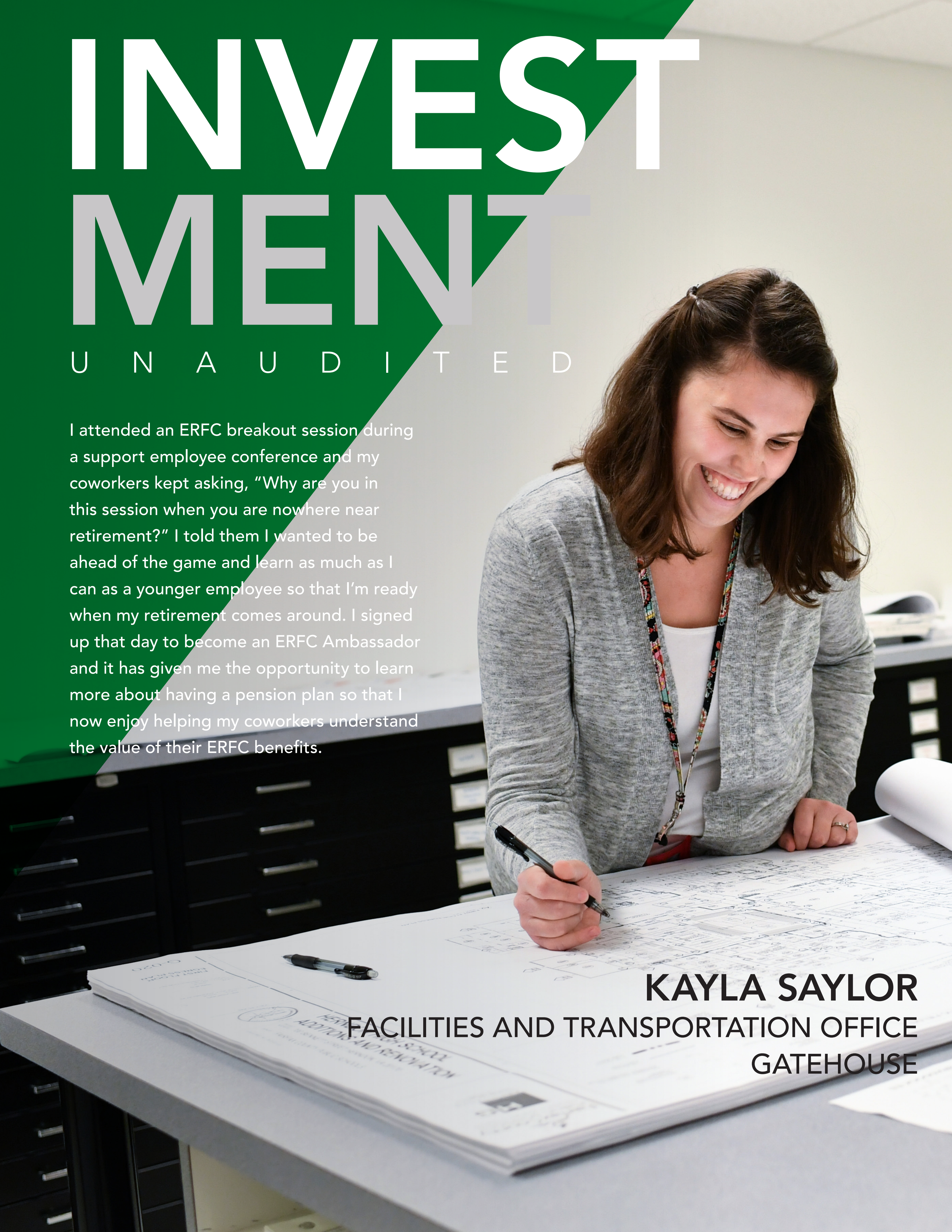
Year Ended June 30, 2019

SERVICE PROVIDER	NATURE OF SERVICE	AMOUNT
Gabriel, Roeder, Smith & Company	Actuary	$ 43,523
Aon Consulting, Inc.	Actuary	91,665
Levi, Ray & Shoup, Inc.	Plan automation support	145,148
Bredhoff & Kaiser, PLLC	Legal counsel	124,084
Groom Law Group, Chartered	Legal counsel	5,770
Reed Smith, LLP	Legal counsel	55,270
ADP payroll services	Pension disbursements	52,906
Cherry Bekaert LLP	Audit	54,718
Linea Solutions	Strategic Planning	102,000
TOTAL PROFESSIONAL SERVICE FEES		**$ 675,084**

INVEST MENT

UNAUDITED

I attended an ERFC breakout session during a support employee conference and my coworkers kept asking, "Why are you in this session when you are nowhere near retirement?" I told them I wanted to be ahead of the game and learn as much as I can as a younger employee so that I'm ready when my retirement comes around. I signed up that day to become an ERFC Ambassador and it has given me the opportunity to learn more about having a pension plan so that I now enjoy helping my coworkers understand the value of their ERFC benefits.



KAYLA SAYLOR
FACILITIES AND TRANSPORTATION OFFICE
GATEHOUSE

CONSULTANT REPORT ON INVESTMENT ACTIVITY

Segal Marco Advisors

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November 14, 2019

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

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, 2019. This letter will also highlight any changes to the plan in fiscal 2019.

As of the June 30th fiscal year-end, the Fund was in compliance with policy target ranges with 38.1% in equities, 8.6% in real estate, 28.9% in fixed income, 4.7% in hedge fund strategies, 4.6% in private equity, 15% in global asset allocation/better beta strategies, and 0.2% in cash. On a gross of fee basis, the Fund earned a return of 4.7% for the one-year period ending June 30, 2019 and ranked in the 63rd percentile of the public fund from $1B-$3B within the InvestorForce Universe. Over the same period, ERFC lagged its assumed actuarial return target of 7.25% by 2.55%. The Fund's assets increased from $2.4 billion as of fiscal year-end 2018 to approximately $2.5 billion as of fiscal year-end 2019.

Market Commentary and Fund Performance:

The U.S. economy continued its near historically long growth streak as the Federal Reserve Bank changed its tightening monetary policy of 2018 and announced that there would not be any further Fed interest rate hikes in 2019. This change of Fed policy was due to signs of slowing global growth toward the end of June of 2019. U.S. Equities posted their first negative calendar year after nine consecutive years of positive returns. Equities experienced double-digit declines in the 4th quarter of 2018, which had a large effect on the fiscal June 30, 2019 returns. U.S./China trade relations had a large negative impact on performance at the end of 2018, but by the end of June of 2019 optimism about the U.S./China trade relations resurfaced, which caused an increase in U.S. equities by over 18% for the YTD 2019 period. Equity markets were broadly higher in the 2nd quarter of 2019 despite ongoing global trade tensions and disappointing economic data. The markets' gains came with the possibility of a rate cut from the Federal Reserve, as well as hopes that trade relations between the U.S. and China may be improving.

CONSULTANT REPORT ON INVESTMENT ACTIVITY

Global Equity:
Developed market equities were positive in the quarter, though they lagged U.S. stocks. Emerging markets had a much sharper reaction to the renewed tariff threats and the MSCI Emerging Markets Index made a smaller gain relative to its developed counterparts. Global equity valuations were elevated, with P/Es on U.S. and emerging market stocks above historic medians. Only developed market equity valuations were a bit below median at the end of June 2019. Global demand for Treasuries also contributed to lower yields across all tenors. Trends from 1st quarter of 2019 among shorter maturities continued, with the 5-year yield (1.76%) falling below the 3 month yield (2.12%) at the end of the 2nd quarter.

Domestic Equity Portfolio:
For the fiscal year 2019 period, the equity composite held $527 million (21% of the total fund) in domestic equities. The Total Domestic Equity Portfolio returned 6.2%, lagging the Russell 3000 Index return of 9.0%, by 2.8% for the fiscal year.

International Developed Equity Portfolio:
For the fiscal year 2019 period, the international developed equity composite held $330 million (13% of the total fund). The total international equity portfolio returned -2.3%, under-performing the MSCI ACWI ex USA return of +3.6%.

Emerging Market Equity Portfolio:
The emerging market equity composite held $102.1 million (4% of the total fund). The total emerging market equity composite returned -1.5%, lagging the MSCI Emerging Market Index return of +1.2%.

Fixed Income:
Treasury yields continued to fall across the curve in Q2, with the Fed ruling out interest rate hikes in 2019, with global growth slowing. The Fed had increased rates 4 times in 2018. Global demand for Treasuries also contributed to lower yields across all tenors. The 30-year Treasury ended the quarter yielding 2.18%, which was 25 basis points (bps) lower than its yield at the end of the first quarter of 2019. The 2-year Treasury ended the quarter at 1.75%, which was 25 bps lower than the prior quarter. Central bank deposit rates remained negative in Japan and Europe. Slow growth and worries surrounding global trade uncertainty kept central banks on hold. The U.S. continued to be a global outlier with its policy rate at 2.5%. Policy rates in the Eurozone and Japan remained negative. The Fed did not hike in the 2nd quarter of 2019 as its plans for future rate increases have been dashed due to uncertainty surrounding economic growth and the effect of trade tensions.

Domestic Fixed Income Portfolio:
For the fiscal year 2019, the total domestic fixed income composite held $544.9 million (22% of the total fund). The composite returned +7.5%, lagging the Barclays US Aggregate return of +7.9%, by 40 basis points.

Emerging Market Debt Portfolio:
For the fiscal year 2019, the total emerging market debt composite held $90 million (4% of the total fund). The composite returned +10.1%, outperforming the JP Morgan GBI-EM index return

CONSULTANT REPORT ON INVESTMENT ACTIVITY

Page 3

Unconstrained Fixed Income Portfolio:
For the fiscal year 2019, the total unconstrained fixed income composite held $93.0 million (4% of the total fund). The composite returned +3.1%, underperforming the Barclays Global Aggregate index return of +5.8% by 2.7%.

Real Estate:
The real estate market continued to post positive returns in fiscal year 2019. The NCREIF NFI ODCE Index Non-Lagged (representing 36 open-end commingled funds pursuing a core investment strategy) generated a +6.4% return. In real estate, fundamentals remain healthy in most U.S. core property markets. U.S. real estate investment trusts (REITs) returned +11.5% in the one year period ending June 30. Across non-core real estate strategies, we continue to see relative value opportunities and favor demographically driven property types with managers focused on cash flow and duration risk. The retail sector continues to provide weakness within real estate with industrials continuing to be a strong driver of returns.

Real Estate Portfolio:
For the fiscal year 2019, the total real estate composite held $218 million (9% of the total fund). The composite returned +6.4%, lagging ERFC's blended real estate (custom) index return of +7.2%.

Hedge Funds:
The HFRI Fund Weighted Composite increased +1.9% during Q2 and all of the major hedge fund strategies were positive during the quarter. Hedge fund strategies reported the best first half since 2009. Macro was the strongest performing strategy in Q2 amid increased geopolitical and headline risk across the globe, which translated to market inefficiencies in select pockets of the capital markets. Meanwhile, Equity Hedge continued its strong performance on the back of effective stock selection on both the long and short sides.

Hedge Fund Portfolio:
For the fiscal year 2019, the total hedge fund composite held $118 million (5% of the total fund). The composite returned -0.9%, lagging the HFRI Fund of Fund Composite Index return of +1.2% by 210 basis points.

MACS Portfolio: (Better Beta/Global Asset Allocation)
For the fiscal year 2019, the MACS composite held $378 million (15% of the total fund). The composite returned +4.2%, lagging the custom Index return of +6.0% by 180 basis points.

The Board Trustees hired Segal Marco Advisors as a new Investment Consultant in 2019. Segal Marco Advisors performed an asset allocation study in early 2019. Subsequent to this asset allocation study the Board adopted a new asset allocation policy in April 2019.

The new asset allocation increased small cap, reduced developed international and added a global equity allocation. The new asset allocation also removed the REIT allocation while added TIPS

CONSULTANT REPORT ON INVESTMENT ACTIVITY

reducing the MACS portfolio and adding private credit as a new asset class. The real estate portfolio will introduce more diversity through value add and opportunistic real estate segments and adding an Infrastructure specific mandate. These asset allocation changes will be implemented throughout the remainder of 2019 and into 2020. The new Asset Allocation chosen increased the long term projected return of the Fund while lowered its risk level. The portfolio continues to be diversified across asset classes and remains in compliance with policy targets.

Sincerely,

Sue Crotty
Senior Vice President

Rosemary Guillette
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:

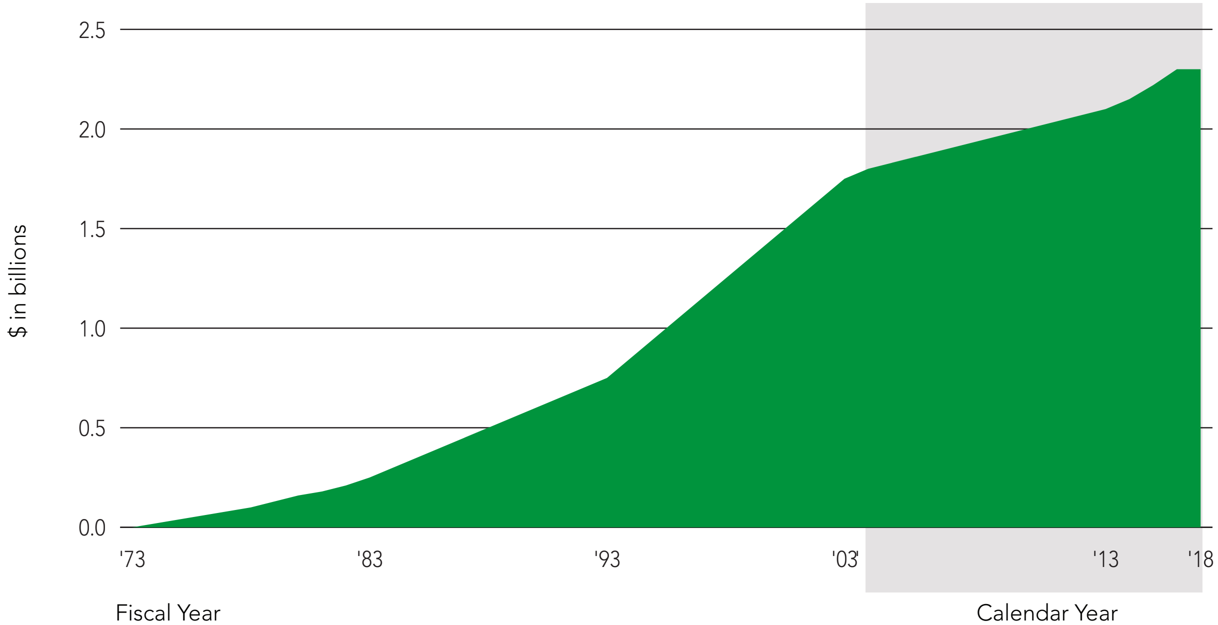
- the anticipated financial needs of the ERFC
- consideration of risk tolerance; and
- the need to document and communicate objectives, guidelines and standards to the investment managers.

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 3.25 percent constitutes an assumed rate of inflation and 4.0 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, 2018 actuarial valuation)



INVESTMENT MANAGERS

ASSETS UNDER MANAGEMENT

As of June 30, 2019 ($ in millions)

INVESTMENT MANAGER	INVESTMENT TYPE	AMOUNT
EQUITIES		
Large Capitalization		
Aronson Johnson Ortiz	Value	$ 109.6
Mellon Capital Management Corp.	Core Index (Russell 1000)	147.6
T. Rowe Price	Growth	121.5
Small/Mid Capitalization		
Epoch Investment Partners, Inc.	Value	46.8
Lazard Asset Management	Core	50.4
Westfield Capital Management	Growth	50.9
International		
Acadian Asset Management	Core	129.9
Causeway Capital	Value	97.7
William Blair & Company	Growth	102.0
William Blair & Company	Emerging Market	102.1
FIXED INCOME		
Loomis-Sayles & Company	Core Plus	152.9
Mellon Capital Management Corp.	Core Index	133.8
JP Morgan Asset Management	Core Plus	258.2
Mondrian Investments	Emerging Market	90.0
GAM Fund Management	Unconstrained	21.2
Loomis-Sayles & Company	Unconstrained	71.8
GLOBAL ASSET ALLOCATION/BETTER BETA		
Bridgewater Associates, Inc.	Better Beta	130.8
Wellington Management Co.	Global Asset Allocation	122.4
Pacific Investment Management Co.	Global Asset Allocation	124.9
HEDGE FUND OF FUNDS		
Grosvenor Institutional Partners	Hedge Fund of Funds	117.5
PRIVATE EQUITY		
Audax	Private	1.2
Lexington	Private	13.4
Newstone	Private	1.1
Glouston	Private	5.4
Private Advisors	Private	21.0
HarbourVest	Private	67.3
Lake Star	Private	4.4
REAL ESTATE		
JP Morgan Asset Management	Private	39.2
PGIM Real Estate	Private	37.8
UBS Trumbull Realty Investors	Private	37.5
Center Square Investment Management	Public	95.3
Landmark	Public	8.3
CASH (TEMPORARY CASH)		5.5
TOTAL		**$ 2,519.4**

ASSET STRUCTURE

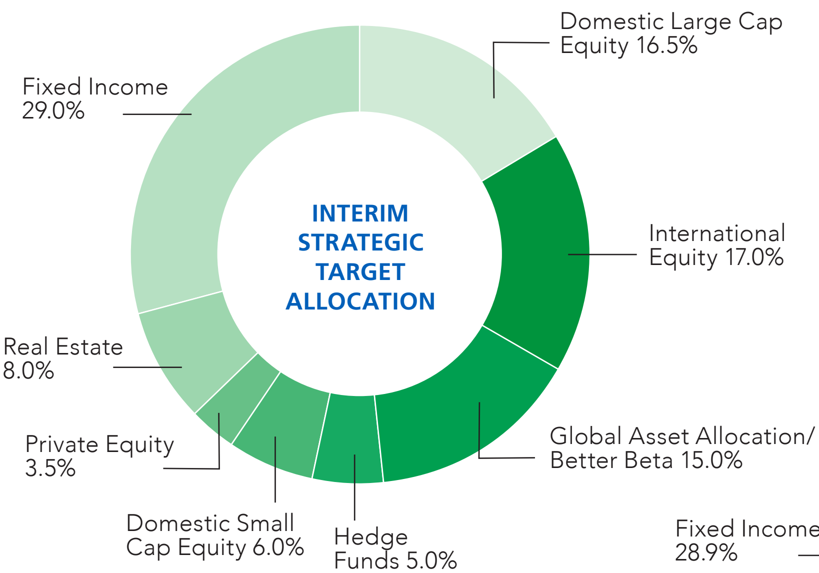
INTERIM STRATEGIC TARGET ALLOCATION AS OF JUNE 30, 2019

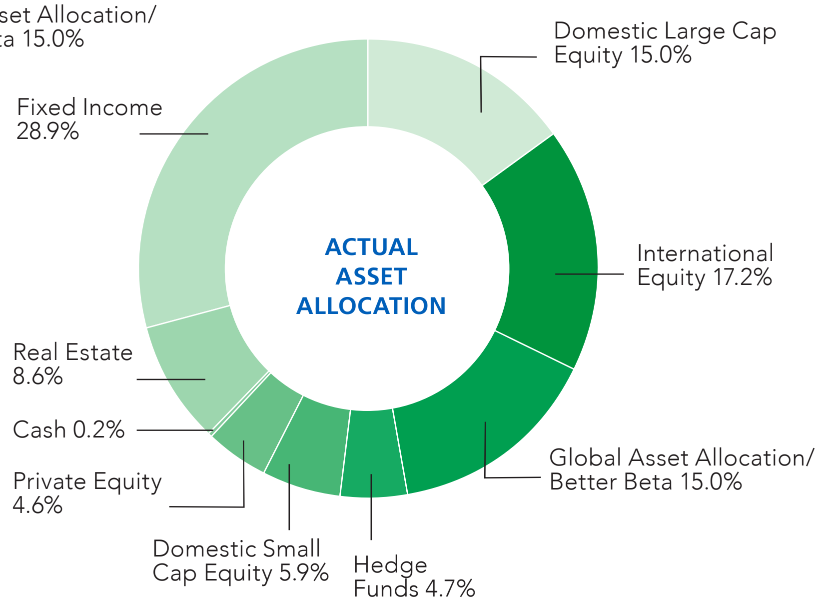
The asset structure shown below represents the Trustees' assessment of their optimal asset allocation as of June 30, 2019. This interim strategic allocation provides a reasonable expectation that the fund's investment objective can be achieved based on historic relationships of asset class performance.

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, 2019.

ACTUAL ASSET ALLOCATION AS OF JUNE 30, 2019

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.

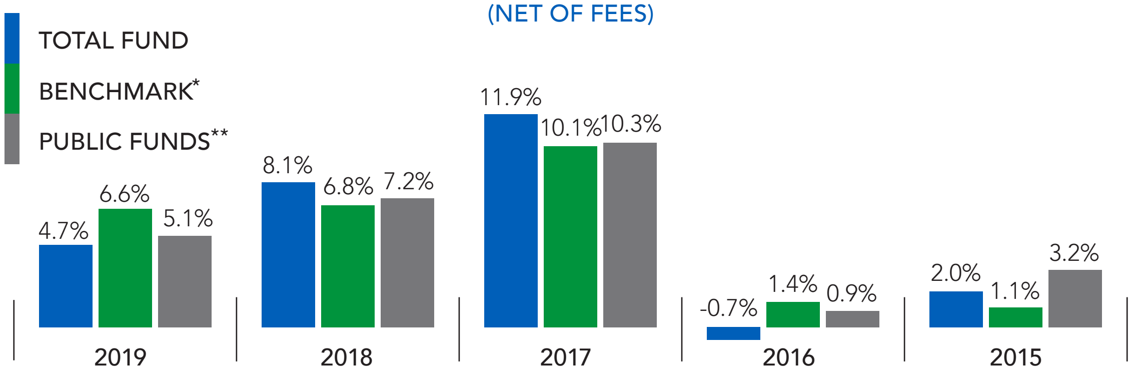




INVESTMENT RESULTS

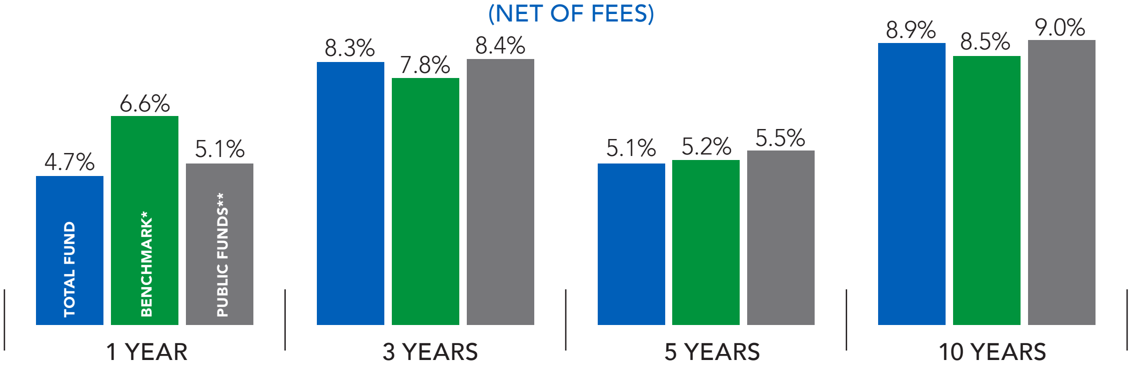
TOTAL FUND RETURNS

FISCAL YEARS ENDING JUNE 30
(NET OF FEES)



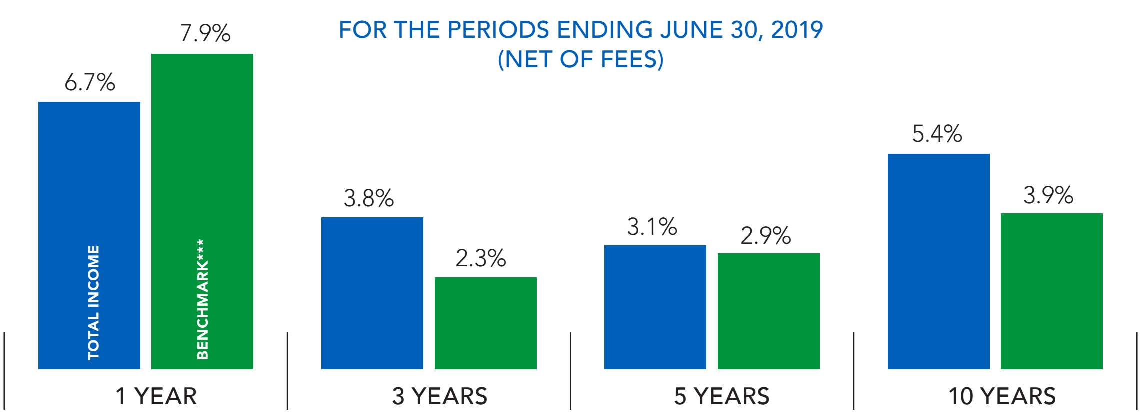
TOTAL FUND

FOR THE PERIODS ENDING JUNE 30, 2019
(NET OF FEES)



DOMESTIC FIXED INCOME

FOR THE PERIODS ENDING JUNE 30, 2019
(NET OF FEES)



* Diversified benchmark is 16.5% Russell 1000, 6.0% Russell 2000, 14% MSCI ACWI ex USA, 3.0% MSCI Emerging Markets, 5% MSCI World, 5% Citi WGBI, 5% BBgBarc US TIPS TR, 3% JPM GBI-EM Global Diversified TR, 4% FTSE EPRA/NAREIT Developed TR USD, 4% NCREIF-ODCE NET, 18% BBgBarc US Aggregate TR, 4% BBgBarc US Credit TR, 4% BBgBarc US Credit Long TR, 5% HFRI Fund of Funds Composite Index, 3.5% Venture Economics All US Private Equity Index

** Investor Force Public Defined Benefit Plan Universe

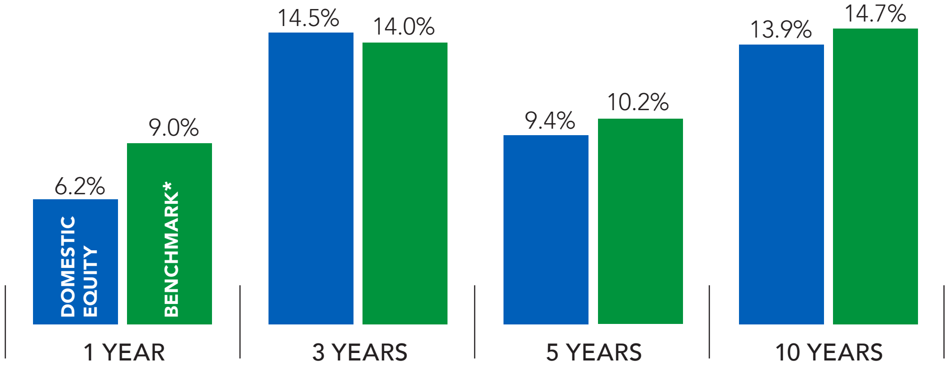
*** Bloomberg Barclays US Aggregate TR

INVESTMENT RESULTS

(For the Periods Ending June 30, 2019)

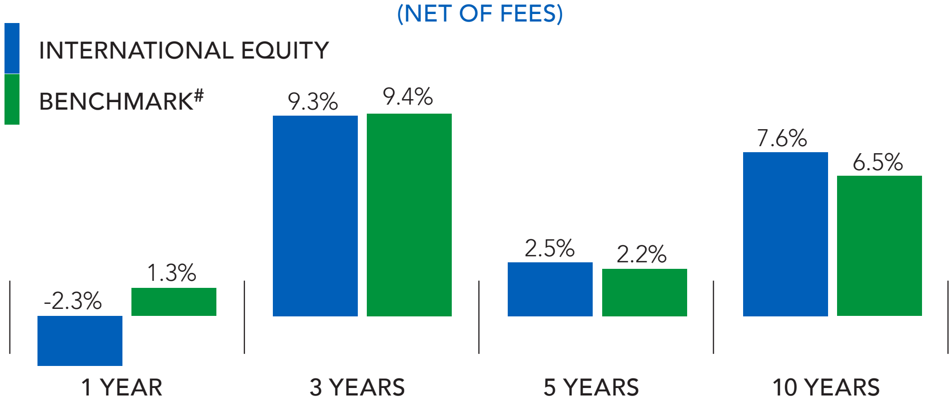
DOMESTIC EQUITY

(NET OF FEES)



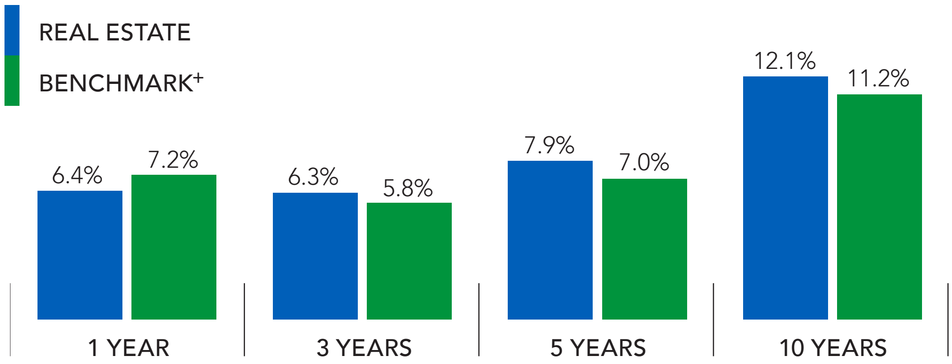
INTERNATIONAL EQUITY

(NET OF FEES)



REAL ESTATE

(NET OF FEES)



* Benchmark: Russell 3000 Index

\# Benchmark:JP Morgan GBI-EM Broad/Global Div Ind

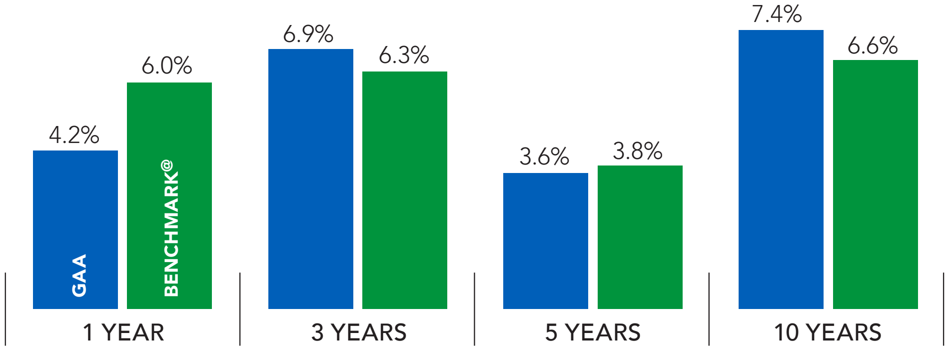
\+ Benchmark: Blended Real Estate Index

INVESTMENT RESULTS

(For the Periods Ending June 30, 2019)

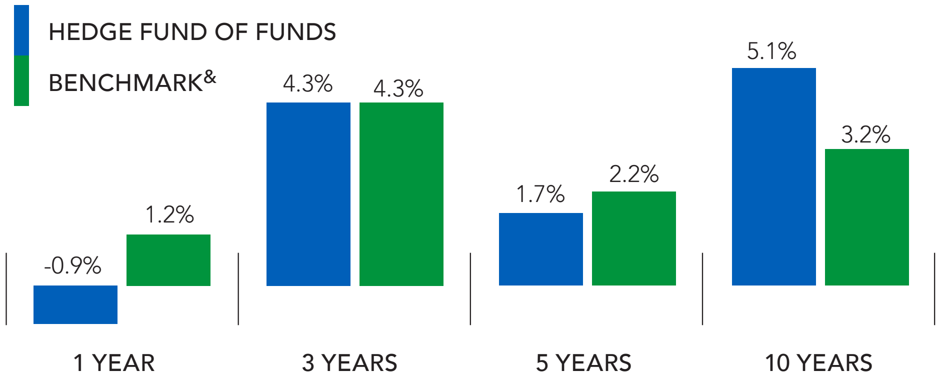
GLOBAL ASSET ALLOCATION

(NET OF FEES)



HEDGE FUND

(NET OF FEES)



INVESTMENT

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

@ Benchmark: 50% MSCI World / 50% Citi World Govt Bond Index

& Benchmark: HFRI Fund of Funds Composite Index

SCHEDULES OF TEN LARGEST EQUITY & FIXED INCOME HOLDINGS

(As of June 30, 2019)

TEN LARGEST EQUITY HOLDINGS*

NO. SHARES	DESCRIPTION	COST	FAIR VALUE	% OF TOTAL PORTFOLIO
4,682	Amazon.com Inc	$ 2,805,535	$ 8,865,976	0.35%
53,619	Microsoft Corp	3,258,172	7,182,801	0.28%
31,006	Facebook Inc	3,311,069	5,984,158	0.24%
4,216	Alphabet Inc-Cl C	27,147,770	4,557,117	0.18%
25,431	Visa Inc	1,662,984	4,413,550	0.18%
11,424	Boeing Co/The	2,308,787	4,158,450	0.16%
23,899	Alibaba Group Holding Ltd	2,734,919	4,049,686	0.16%
14,336	Mastercard Inc	1,214,403	3,792,302	0.15%
12,734	Roche Holding AG	3,107,972	3,587,070	0.14%
100,900	Takeda Pharmaceutical Co	4,716,789	3,580,292	0.14%
TOTAL		**$ 27,835,400**	**$ 50,171,402**	**1.98%**

TEN LARGEST FIXED INCOME HOLDINGS*

PAR VALUE	SECURITY	COUPON	MATURITY	COST	FAIR VALUE	% OF TOTAL PORTFOLIO
7,100,000	US Treasury Note	2.38%	4/30/20	$ 7,097,031	$ 7,120,803	0.28%
7,150,000	US Treasury Bond	1.50%	4/15/20	7,088,305	7,120,399	0.28%
4,250,000	US Treasury Bond	2.25%	8/15/46	4,031,855	4,015,273	0.16%
3,630,000	Ford Motor Credit Co LLC	4.39%	1/8/26	3,630,000	3,648,912	0.14%
2,400,000	Bank Of America Corp	6.11%	1/29/37	2,064,106	3,060,864	0.12%
2,390,000	US Treasury Bond	3.00%	8/15/48	2,217,361	2,621,161	0.10%
1,555,000	Georgia-Pacific LLC	7.75%	11/15/29	1,381,225	2,202,036	0.09%
1,455,000	Weyerhaeuser Co	7.38%	3/15/32	1,446,899	2,034,294	0.08%
37,450,000	Mexican Bonos	8.00%	12/7/23	3,347,568	1,990,878	0.08%
1,790,000	AT&T Inc	4.50%	3/9/48	1,688,108	1,830,114	0.07%
TOTAL				**$ 33,992,458**	**$ 35,644,733**	**1.41%**

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

SCHEDULE OF BROKERAGE COMMISSIONS

(Year Ended June 30, 2019)

BROKER NAME	BASE VOLUME	TOTAL SHARES	BASE COMMISSION	COMMISSION PERCENTAGE
INSTINET CLEARING SER INC, NEW YORK	$ 71,295,875	1,446,814	$ 12,677	0.01
MORGAN STANLEY & CO INC, NY	34,952,129	1,648,299	15,498	0.01
MERRILL LYNCH PIERCE FENNER SMITH INC NY	34,788,151	780,511	10,420	0.01
CITIGROUP GLOBAL MARKETS, INC., NEW YORK	30,706,036	552,063	8,258	0.01
INVESTMENT TECH GROUP INC, NEW YORK	30,463,505	590,342	7,020	0.01
GOLDMAN SACHS & CO, NY	29,688,056	3,154,885	15,104	0.00
J.P MORGAN SECURITIES INC, NEW YORK	28,620,220	591,349	7,015	0.01
JEFFERIES & CO INC, NEW YORK	26,895,520	608,222	7,920	0.01
UBS SECURITIES LLC, STAMFORD	21,544,308	820,271	15,349	0.02
DEUTSCHE BK SECS INC, NY (NWSCUS33)	21,164,275	404,568	5,696	0.01
CREDIT SUISSE, NEW YORK (CSUS)	21,091,600	1,775,002	10,904	0.01
SG AMERICAS SECURITIES LLC, NEW YORK	19,446,753	452,739	3,131	0.01
BERNSTEIN SANFORD C & CO, NEW YORK	19,410,968	497,896	6,396	0.01
ROSENBLATT SECURITIES INC, NEW YORK	17,721,672	337,928	3,379	0.01
MERRILL LYNCH INTL LONDON EQUITIES	17,101,878	2,223,456	13,236	0.01
HSBC BANK PLC (MIDLAND BK)(JAC), LONDON	14,676,162	1,062,794	6,280	0.01
LIQUIDNET INC, NEW YORK	14,251,436	368,561	9,026	0.02
CITIGROUP GLOBAL MARKETS LTD, LONDON	12,310,759	1,060,456	7,556	0.01
BNY CONVERGEX, NEW YORK	12,045,485	300,124	3,032	0.01
BARCLAYS CAPITAL LE, NEW YORK	11,637,096	233,122	3,611	0.02
GUZMAN AND COMPANY, NEW YORK	11,314,977	212,553	2,129	0.01
STIFEL NICOLAUS	11,097,416	107,089	1,988	0.02
CITIGROUP GBL MKTS INC, NEW YORK	10,389,351	262,398	4,261	0.02
INSTINET EUROPE LIMITED, LONDON	10,276,110	867,594	4,050	0.00
RBC CAPITAL MARKETS LLC, NEW YORK	9,737,881	163,667	2,578	0.02
CITATION GROUP BCC CLRG, NEW YORK	8,732,182	271,610	6,954	0.03
J.P. MORGAN SECURITIES LLC, NEW YORK	8,491,084	269,160	2,128	0.01
CREDIT SUISSE (EUROPE), LONDON	8,059,766	115,772	7,114	0.06
J P MORGAN SECS LTD, LONDON	7,686,391	200,151	6,720	0.03
BAIRD, ROBERT W & CO INC, MILWAUKEE	7,675,538	137,828	2,892	0.02
UBS EQUITIES, LONDON	7,110,270	1,090,137	4,304	0.00
CITADEL SECURITIES INSTL LLC, CHICAGO	6,820,330	104,110	521	0.01
SOCIETE GENERALE LONDON BRANCH, LONDON	6,782,285	228,758	2,708	0.01
SG SEC (LONDON) LTD, LONDON	6,758,819	448,884	2,719	0.01
BMO CAPITAL MARKETS CORP, NEW YORK	6,736,176	99,328	1,901	0.02
ISI GROUP INC, NEW YORK	5,561,188	71,446	1,489	0.02
COWEN AND CO LLC, NEW YORK	5,531,607	82,570	1,571	0.02
PAVILLION GBL MARKETS LTD, JERSEY CITY	5,495,744	107,284	1,073	0.01
BARCLAYS CAPITAL INC./LE, NEW JERSEY	5,239,149	136,271	2,581	0.02
UBS WARBURG, LONDON	5,151,195	305,641	3,728	0.01
PERSHING LLC, JERSEY CITY	5,081,803	190,319	1,335	0.01
INVESTMENT TECHNOLOGY GROUP LTD,DUBLIN	4,946,990	188,143	2,114	0.01
UBS SECURITIES CANADA, TORONTO (BWIT)	4,921,640	186,603	1,500	0.01
INSTINET PACIFIC LTD, HONG KONG	4,896,315	1,851,548	1,941	0.00
MACQUARIE BANK LTD, HONG KONG	4,788,145	2,486,800	2,190	0.00
OTHER BROKERS	157,069,822	27,742,722	85,437	0.00
TOTAL	**$ 826,164,058**	**56,837,788**	**$ 329,430**	

INVESTMENT

INVESTMENT SUMMARY

	As of June 30, 2019		As of June 30, 2018	
	FAIR VALUE	**% FAIR VALUE**	**FAIR VALUE**	**% FAIR VALUE**
FIXED INCOME				
U.S. Government obligations	$ 20,877,635	0.8%	$ 8,645,113	0.4%
Asset-backed securities	1,597,045	0.1%	3,001,481	0.1%
Domestic corporate bonds	59,113,116	2.4%	60,982,021	2.5%
Convertible bonds	4,120,335	0.2%	5,292,959	0.2%
International bonds	18,620,528	0.7%	18,358,235	0.8%
Preferred stocks	5,189,750	0.2%	4,505,494	0.2%
Index / Commingled fund	575,050,621	22.7%	558,234,827	22.9%
Total fixed income	**684,569,030**	**27.1%**	**659,020,130**	**27.1%**
DOMESTIC EQUITY				
Basic industry	45,282,598	1.8%	54,753,694	2.2%
Consumer services	120,599,565	4.8%	133,990,872	5.5%
Financial and utility	79,353,221	3.2%	88,459,281	3.6%
Technological	102,522,808	4.1%	199,146,423	4.1%
Index / Commingled fund	147,559,747	5.9%	151,467,022	6.2%
Total domestic equity	**495,317,939**	**19.8%**	**527,817,292**	**21.6%**
International Equity				
Basic industry	63,671,062	2.5%	78,932,576	3.2%
Consumer and services	107,183,159	4.3%	112,481,348	4.6%
Financial and utility	76,491,764	3.0%	76,713,062	3.1%
Technological	75,515,135	3.0%	66,133,031	2.7%
Index / Commingled fund	120,391,551	4.8%	91,649,021	3.8%
Total international equity	**443,252,671**	**17.6%**	**425,909,038**	**17.4%**
Real Estate				
Commercial	75,289,651	3.0%	72,892,877	3.0%
Commingled	134,411,069	5.3%	122,991,079	5.0%
Private	8,325,064	0.3%	4,214,814	0.2%
Total real estate	**218,025,784**	**8.6%**	**200,098,771**	**8.2%**
Alternative investments				
Better beta	130,756,594	5.2%	121,560,075	5.0%
Global asset allocation	247,355,510	9.8%	240,779,487	9.9%
Hedge fund of funds	117,526,120	4.7%	118,564,588	4.9%
Limited partnerships	115,300,063	4.6%	88,913,409	3.6%
Total alternative investments	**610,938,287**	**24.3%**	**569,817,559**	**23.4%**
Subtotal investments at fair value	**2,452,103,711**	**97.4%**	**2,382,662,790**	**97.7%**
Short-term Investments				
Money Market	63,034,618	2.6%	54,453,002	2.3%
Total short-term investments	**63,034,618**	**2.6%**	**54,453,002**	**2.3%**
Total	**$ 2,515,138,329**	**100.0%**	**$ 2,437,115,792**	**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, 2019)

INVESTMENT CATEGORY	ASSETS UNDER MANAGEMENT	EXPENSE
Better beta	$ 130,756,594	$ 575,481
Domestic equity managers	495,317,939	1,543,015
Fixed income managers	684,569,030	1,848,276
Global asset allocation managers	247,355,510	1,792,940
Hedge fund of funds	117,526,120	1,039,248
International equity managers	443,252,671	2,200,327
Private equity	115,300,063	1,744,543
Real estate managers	218,025,784	2,239,714
Total	**$ 2,452,103,711**	**$ 12,983,544**

Note: Excludes cash and cash equivalents

INVESTMENT

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THE EDUCATIONAL EMPLOYEES'
SUPPLEMENTARY RETIREMENT SYSTEM
of Fairfax County

ACTUARIAL

UNAUDITED

I'm proud to be an FCPS employee because it gives me the chance to provide service in support of the Fairfax County educational system. I believe in education – it's very important to our younger generations. Besides the services I provide, I receive retirement benefits from ERFC, the supplemental income benefit from FCPS. ERFC helps me feel confident by building income for my retirement – I love FCPS!

BICH TRAN
IT OPERATIONS
WILTON WOODS

Being knowledgeable about a pension means financial freedom in the future. Part of the reason I chose FCPS in comparison to surrounding districts is the defined benefit plan. The idea that saving and having multiple income paths is important. Between ERFC, VRS and a 403b plan, I feel confident that I will be comfortable when I retire. Understanding that the costs associated with retirement are increasing and being able to have that peace of mind is why I adamantly believe in ERFC and their role to help all employees at the end of our careers and beyond. I hope that all employees learn more about ERFC and retirement in general. Being an ambassador for ERFC helped me not only understand our retirement structure, but I have also helped my colleagues.

KYLE LASPE
ASSISTANT PRINCIPAL
WESTFIELD HIGH SCHOOL

ACTUARY'S CERTIFICATION LETTERS

Aon
Empower Results®

November 11, 2019

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, 2018. 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, 2019 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, 2018 and the accounting valuation report that was prepared as of June 30, 2018. 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.

2001 K Street NW | Washington, DC 20006
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ACTUARY'S CERTIFICATION LETTERS

Empower Results®

ERFC Board of Trustees
Page 2
November 11, 2019

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, 2019 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, 2018 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.

It is our understanding that the information prepared by Aon was used by ERFC for the following schedules in their fiscal year 2019 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, 2018
  - Historical Information for All Members (last 8 years)
  - All Active Members in Valuation on December 31, 2018 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

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.

ACTUARY'S CERTIFICATION LETTERS

Aon
Empower Results®

ERFC Board of Trustees
Page 3
November 11, 2019

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, 2018 funding report and the June 30, 2019 accounting report meets all applicable Actuarial Standards of Practice.

Please let us know if you have any questions.

Regards,

Aon

Al-Karim Alidina

Al-Karim Alidina, FSA, EA

AA:sp 2272801
cc: Robert Burrell, 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

	PAY INCREASE ASSUMPTION		
SERVICE INDEX	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

	PERCENT OF ACTIVE MEMBERS SEPARATING WITHIN NEXT YEAR							
	DEATH				DISABILTY			
	ORDINARY		DUTY		ORDINARY		DUTY	
SAMPLE AGES	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

	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?	
AGE	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

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%

EMPLOYER SCHEDULE OF FUNDING PROGRESS

(Last Ten Years)

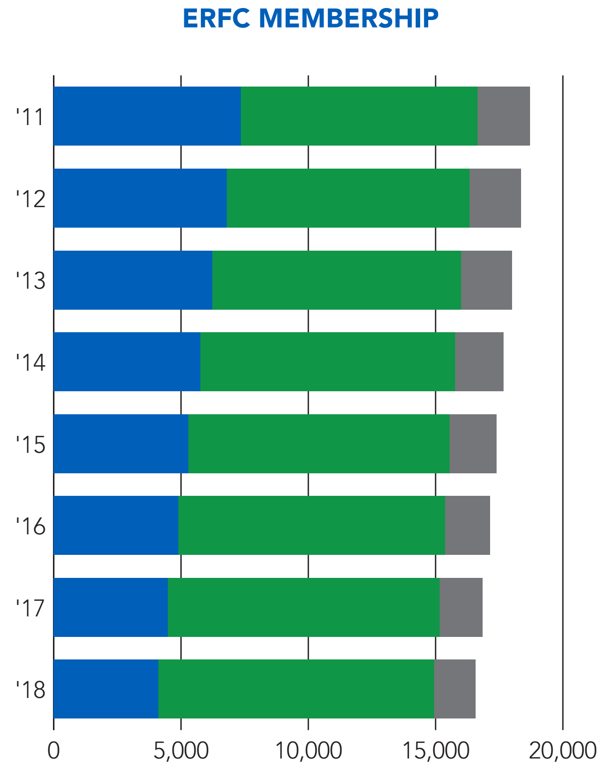
EMPLOYER SCHEDULE OF FUNDING PROGRESS

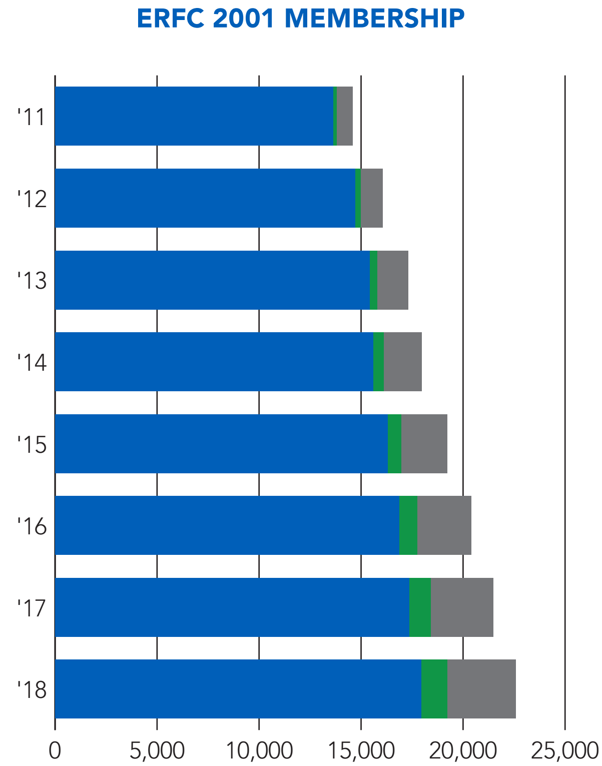
ACTUARIAL VALUATION DATE AS OF DECEMBER 31	ACTUARIAL VALUE OF ASSETS (A)	ACTUARIAL ACCRUED LIABILITY (AAL) ENTRY AGE (B)	UNFUNDED AAL (UAAL) (B-A)	ANNUAL COVERED PAYROLL (C)	PERCENT FUNDED (A/B)	UAAL PERCENTAGE OF COVERED PAYROLL [(B-A)/C]
	($ IN THOUSANDS)					
2009	$1,769,540	$2,339,869	$570,329	$1,208,093	75.6%	47.2%
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%

See Schedule of Employer Contributions on page 32.

SUMMARY OF MEMBER DATA

(Last Eight Years)





		ERFC			ERFC 2001			
	YEAR	ACTIVE	RETIRED	TERMINATED/ VESTED	ACTIVE	RETIRED	TERMINATED/ VESTED	TOTAL
Calendar Year	2011	7,353	9,293	2,063	13,623	174	798	33,304
(As of December 31)	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

SUMMARY OF MEMBER DATA

(As of December 31, 2018)

ACTIVE ERFC MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE

	YEARS OF SERVICE TO VALUATION DATE							TOTALS		
AGE GROUP	0-4	5-9	10-14	15-19	20-24	25-29	30 & UP	NO.	SALARY	AVERAGE
35-39				7				7	$ 519,788	$ 74,255
40-44	3	23	52	300	92			470	43,835,981	93,268
45-49	8	39	71	328	426	83		955	93,532,145	97,939
50-54	10	42	44	254	316	239	39	944	89,731,318	95,054
55-59	3	8	35	251	274	130	62	763	66,794,893	87,542
60		1	3	44	52	18	5	123	10,645,379	86,548
61		1	5	45	49	31	13	144	12,521,520	86,955
62			4	51	51	21	9	136	11,271,090	82,876
63			5	39	42	24	9	119	10,245,033	86,093
64		1	2	41	56	17	8	125	10,593,999	84,752
65		1		34	25	15	4	79	6,528,721	82,642
66			1	25	25	8	11	70	6,298,660	89.981
67			1	15	18	5	6	45	3,547,298	78,829
68			1	11	12	7	5	36	2,914,376	80,955
69				6	5	6	4	21	1,775,318	84,539
70			1	9	6	5	3	24	2,117,301	88,221
71	1			2	4	1	4	12	874,359	72,863
72				4	2	3		9	877,597	97,511
73					3	3	1	7	777,787	111,112
74				1	1			2	141,293	70,647
75 & over				4	6	6	8	24	1,955,165	81,465
TOTAL	**25**	**116**	**225**	**1,471**	**1,465**	**622**	**191**	**4,115**	**$377,499,021**	**$91,737**

SUMMARY OF MEMBER DATA

(As of December 31, 2018)

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

	YEARS OF SERVICE TO VALUATION DATE				TOTALS		
AGE GROUP	0-4	5-9	10-14	15 & UP	NO.	SALARY	AVERAGE
20-24	77	1			78	$ 3,628,508	$ 46,519
25-29	1,327	471			1,798	103,347,242	57,479
30-34	744	1,358	245	1	2,348	151,872,333	64,682
35-39	492	760	934	166	2,352	174,122,582	74,032
40-44	479	424	524	366	1,793	137,590,610	76,738
45-49	481	527	474	261	1,743	127,348,701	73,063
50-54	404	504	508	191	1,607	110,285,822	68,628
55-59	308	406	538	268	1,520	101,785,935	66,964
60	31	62	80	36	209	14,,101,921	67,473
61	27	50	81	52	210	15,142,318	72,106
62	18	49	59	35	161	10,741,695	66,719
63	20	34	59	42	155	10,680,994	68,910
64	9	27	52	32	120	8,050,926	67,091
65	15	23	52	18	108	7,390,062	68,427
66	13	12	39	8	72	5,192,441	72,117
67	5	8	18	17	48	3,136,595	65,346
68	6	9	19	9	43	2,911,805	67,716
69	3	4	15	10	32	1,938,182	60,568
70	1	7	5	4	17	889,100	52,300
71	2	4	2	2	10	543,831	54,383
72	3	1	4	1	9	645,075	71,675
73	2	1	2		5	194,277	38,855
74			3	2	5	412,010	82,402
75 & over	2	1	3	3	9	575,017	63,891
TOTAL	**4,469**	**4,743**	**3,716**	**1,524**	**14,452**	**$992,527,982**	**$68,678**

SUMMARY OF MEMBER DATA

(As of December 31, 2018)

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

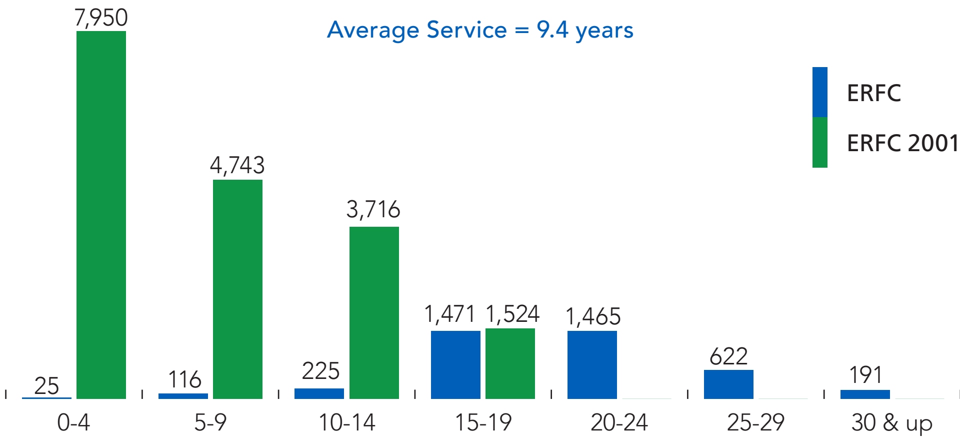
	YEARS OF SERVICE TO VALUATION DATE				TOTALS		
AGE GROUP	0-4	5-9	10-14	15 & UP	NO.	SALARY	AVERAGE
15-19	3				3	$ 62,618	$ 20,873
20-24	584				584	27,704,334	47,439
25-29	839				839	42,778,745	50,988
30-34	466				466	25,813,951	55,395
35-39	373				373	21,579,703	57,854
40-44	366				366	20,955,287	57,255
45-49	364				364	19,738,613	54,227
50-54	241				241	13,241,482	54,944
55-59	156				156	8,122,723	52,069
60	20				20	1,057,057	52,853
61	17				17	980,424	57,672
62	14				14	648,601	46,329
63	9				9	483,473	53,719
64	5				5	217,675	43,535
65	5				5	271,804	54,361
66	7				7	246,506	35,215
67	3				3	233,870	77,957
68	2				2	114,839	57,420
69	2				2	115,000	57,500
70	1				1	28,051	28,051
71	2				2	84,035	42,018
72	1				1	22,380	22,380
73	1				1	86,290	86,290
	3,481				**3,481**	**$184,587,461**	**$53,027**

SUMMARY OF MEMBER DATA

(As of December 31, 2018)

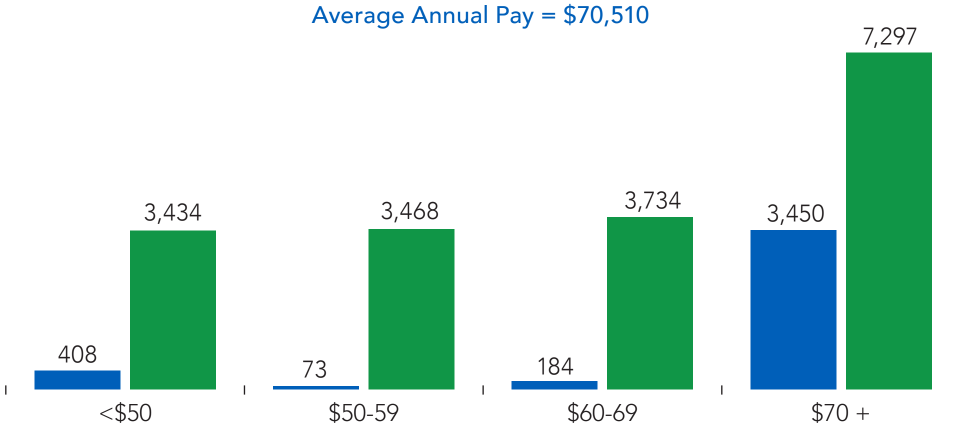
ACTIVE MEMBER YEARS OF SERVICE

Average Service = 9.4 years



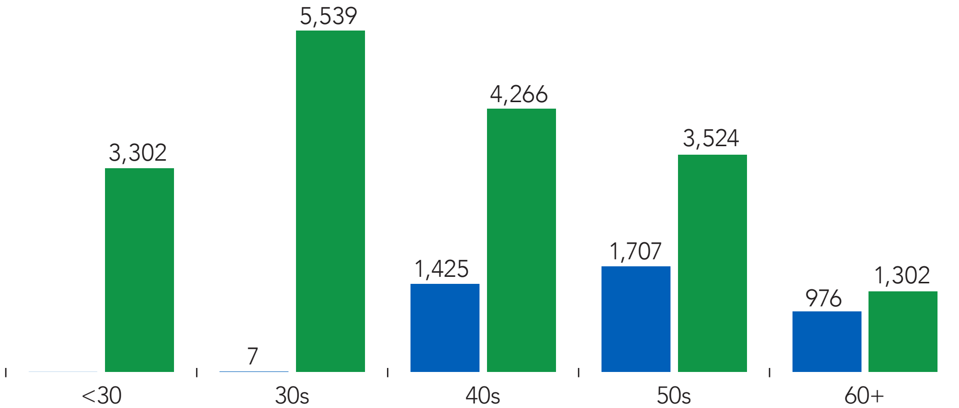
ACTIVE MEMBER SALARIES ($ IN THOUSANDS)

Average Annual Pay = $70,510



ACTIVE MEMBER AGES

Average Age = 43.6 years | Total Active Members = 22,048



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, 2009	19,891	$ 1,208,092,606	60,735	(1.1)
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

RETIRANTS AND BENEFICIARIES ADDED AND REMOVED (10 YEARS)

	ADDED TO PAYROLL		REMOVED FROM PAYROLL		PAYROLL AT END OF YEAR			
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)								
2009	426	$ 596,102	249	$ 162,485	8,772	$ 11,565,358	$ 1,318	3.36
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

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)						
6/30/1999	$ 154,582	$ 539,917	$ 651,160	$ 1,365,417	100%	100%	103%
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

@ 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								
*1998–99	$(8.4)	$95.4	$0.3	$(1.0)	$6.5	$(3.8)	$89.0	7.0%
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)	(4.3)

Experience Study
* Updated Gain Formulas
@ 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, multplied 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 anually 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 (½ 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 recieve 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) ½ of 1 percent for the first 60 months and 4/10 of 1 percent for each additional month between the member's age at the date of death and age 60, and
  2) ½ of 1 percent for the first 60 months and 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 anually 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, 2018.

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THE EDUCATIONAL EMPLOYEES'
SUPPLEMENTARY RETIREMENT SYSTEM
of Fairfax County

STAT ISTICAL

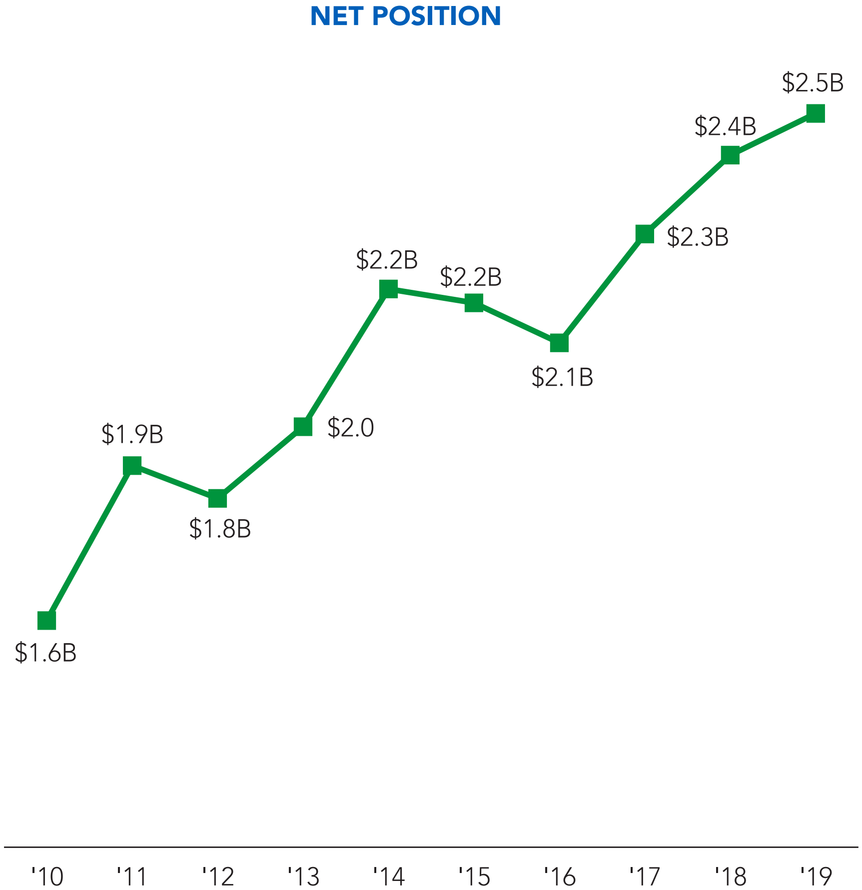
U N A U D I T E D

I serve as an ERFC ambassador at Willow Oaks because I believe that employees should know about their retirement benefits from their first day as an FCPS employee. I am so grateful that FCPS provides employees with a supplemental pension plan. Being an Ambassador allows me to connect with my colleagues, assist them in accessing the ERFC retirement planning resources, help them understand their retirement benefits, and answer their questions. I have enjoyed meeting folks I would not normally have met. I whole-heartedly encourage others to join the team of ERFC Ambassadors!

EVIE IFANTIDES
K-12 ESOL TECHNOLOGY SPECIALIST
WILLOW OAKS

NET POSITION

Last 10 Fiscal Years



FISCAL YEARS	NET POSITION
2010	$1,607,663,423
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

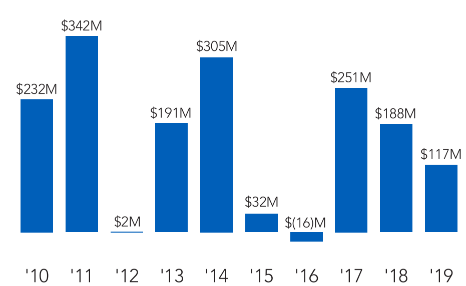
CHANGES IN NET POSITION

Last 10 Fiscal Years

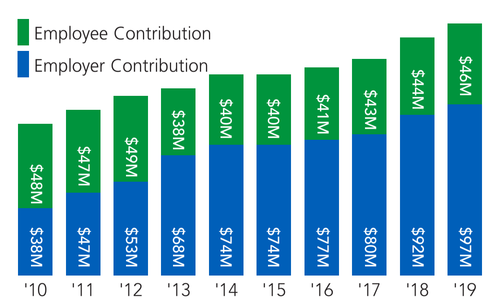
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
ADDITIONS										
Employee contributions	$47,918,341	$47,167,129	$49,142,379	$38,428,367	$40,018,590	$39,982,963	$41,383,642	$43,062,632	$44,169,100	46,645,396
Employer contributions	37,868,623	47,118,111	52,934,245	67,734,634	74,174,082	74,324,396	76,599,695	80,094,538	91,704,877	96,982,911
Investment income (net of expenses)	231,574,404	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
Gain\loss from sale of capital assets	—	(1,503)	—	—	—	—	—	—	—	
TOTAL ADDITIONS TO PLAN NET POSITION	**317,361,368**	**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**
DEDUCTIONS										
Benefit payments	143,128,569	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
Contribution refunds	3,339,910	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
Administrative expenses	4,663,896	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
TOTAL DEDUCTIONS TO PLAN NET POSITION	**151,132,375**	**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**
CHANGE IN NET POSITION NET OF EXPENSES	**$166,228,993**	**$279,304,696**	**$(59,199,797)**	**$129,004,504**	**$248,154,365**	**$(25,203,134)**	**$(72,136,359)**	**$196,693,956**	**$141,998,243**	**$75,161,575**

ADDITIONS BY SOURCE

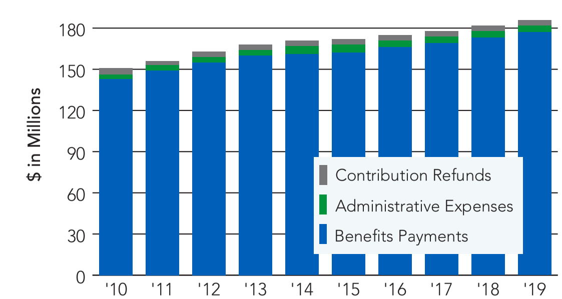
NET INVESTMENT INCOME



EMPLOYEE/EMPLOYER CONTRIBUTION



DEDUCTIONS BY TYPE



ASSETS AND LIABILITIES COMPARATIVE STATEMENT

Last 20 Years—Dollars in Thousands

Valuation Date	Active Member Payroll	COMPUTED LIABILITIES Retired	Members	Total	Valuation Assets	[Excess of Assets] Unfunded Accrued Liabilities	Funded Percent
6/30/1999	$626,015	$539,917	$805,742	$1,345,659	$1,365,417	$(19,758)	101.5 %
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

@ 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

	SERVICE BENEFITS				DEATH BENEFITS		DISABILITY BENEFITS					
	NORMAL		EARLY		DUTY/NON-DUTY		DUTY		NON-DUTY		TOTAL	
Fiscal Years	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT	PARTICI-PANTS	BENEFITS
2010	4,600	100,020,271	3,783	40,614,214	145	1,167,515	23	308,454	194	1,018,115	**8,745**	**143,128,569**
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**

BENEFIT REFUNDS BY TYPE

Last 10 Years

	SEPARATION		DEATHS		TOTAL	
FISCAL YEAR	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT
2010	648	$ 3,201,604	15	$ 138,306	663	$ 3,339,910
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

RETIRED MEMBERS BY TYPE OF BENEFIT

(As of December 31, 2018)

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	1,951	615	1.281	29	21	5	1,445	139	4	54	47	262
251–500	2,369	1,197	1,041	24	100	7	1,784	225	4	94	51	211
501–750	1,254	745	463	10	33	3	915	111	10	51	31	136
751–1,000	862	563	289	4	6	0	542	50	5	56	11	198
1,001–1,250	1,108	745	351	6	6	0	679	44	20	69	5	291
1,251–1,500	924	706	213	2	3	0	634	57	6	36	13	178
1,501–1,750	665	535	127	0	3	0	439	26	7	45	7	141
1,751–2,000	613	526	85	2	0	0	379	33	6	44	6	145
Over 2,000	2,355	1,972	378	2	0	3	1,451	130	17	181	24	552
TOTAL	**12,101**	**7,604**	**4,228**	**79**	**172**	**18**	**8,268**	**815**	**79**	**630**	**195**	**2,114**

*** 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 1/1/14 to 12/31/14						
Avg Monthly Benefit	$ 294.80	$ 463.79	$ 703.01	$ 968.54	$ 2,216.21	$ 2,518.11
Avg Final Average Salary	$ 4,965.46	$ 5,477.16	$ 5,963.68	$ 6,310.28	$ 7,418.79	$ 7,816.52
No. of Retired Members	86	137	118	64	124	82
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

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	2009	1,751	841	480
	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

RETIREES AND BENEFICIARIES CURRENT ANNUAL BENEFITS TABULATED BY ATTAINED AGES

(As of December 31, 2018)

	TOTAL	
ATTAINED AGES	**NO.**	**ANNUAL AMOUNT**
Under 40	2	$ 6,533
40 - 44	5	20,133
45	1	6,012
47	2	8,152
48	3	19,992
49	5	49,525
50	4	71,369
51	8	133,669
52	7	192,594
53	18	494,316
54	21	614,277
55	78	1,728,426
56	102	2,654,760
57	113	2,618,350
58	109	2,811,156
59	125	3,453,522
60	243	5,398,837
61	301	6,405,434
62	341	7,102,226
63	393	8,189,983
64	490	10,153,184
65	508	10,564,303
66	568	5,878,464
67	582	5,435,635
68	637	6,447,219
69	670	6,943,880
70 - 74	3,076	34,763,850
75 - 79	1,791	22,488,098
80 & Up	1,898	27,189,777
GRAND TOTAL	**12,101**	**$ 171,843,676**

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, 2018)

	TOTAL	
ATTAINED AGES	**NO.**	**ANNUAL AMOUNT**
27	5	$ 11,444
28	32	66,114
29	64	152,401
30	86	212,492
31	111	298,261
32	137	385,339
33	138	421,923
34	158	508,723
35	192	648,854
36	202	718,941
37	230	837,369
38	222	871,947
39	228	915,304
40	220	814,979
41	186	651,516
42	181	634,124
43	172	629,098
44	171	515,040
45	167	571,456
46	156	507,573
47	190	678,194
48	167	551,363
49	154	507,713
50	135	493,668
51	141	524,026
52	129	495,126
53	127	457,815
54	126	434,786
55	102	416,441
56	99	403,036
57	108	474,679
58	112	440,716
59	96	385,946
60	47	197,440
61	46	198,414
62	32	146,401
63	22	76,879
64	24	124,401
65 & Over	65	218,198
GRAND TOTAL	**4,980**	**$ 17,598,140**

Note: This source of information presented is from the most recent actuarial valuation report. It does not include 13 additional inactive vested members from the 1973 Plan.

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THE EDUCATIONAL EMPLOYEES'
SUPPLEMENTARY RETIREMENT SYSTEM
of Fairfax County

Nearing retirement in the next year or so, ERFC could not have been more helpful in the planning and explanation of benefits. I feel they have “my back” in preparing for retirement and maximizing my benefits…a very welcome and helpful effort on their part. Well done ERFC crew!

BOB CORDOVA

COORDINATOR,
PROPERTY MANAGEMENT
GATEHOUSE

ERFC Ambassadors are an invaluable part of the educational resources ERFC offers to assist you in understanding your Fairfax County Public Schools pension plan. These 175 volunteers (and counting) work on spreading the value of ERFC throughout the FCPS community. Their support helps us make your career journey to retirement a path that ultimately leads to financial freedom.

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