

ERFC 2017

COMPREHENSIVE ANNUAL FINANCIAL REPORT



**For the
Fiscal Year
Ended
June 30, 2017**

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

**A Component
Unit of
Fairfax County
Public Schools**

Fairfax, Virginia

ACHIEVEMENTS

CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to ERFC for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2016. This was the 20th 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

**The Educational Employees'
Supplementary Retirement System
of Fairfax County (ERFC), Virginia**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2016

A handwritten signature in black ink, appearing to read 'Jeffrey R. Egan'.

Executive Director/CEO

2017 ERFC

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2017
The Educational Employees' Supplementary
Retirement System of Fairfax County

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

BOARD OF TRUSTEES

Nancy Hammerer, Chairperson and Trustee
Kimberly Adams, Vice Chairperson and Trustee
Kristen Michael, Treasurer and Trustee
Susan Quinn, Trustee
Michael Burke, Trustee
Marty K. Smith, Trustee
Daryl Richards, Trustee

ADMINISTRATION

Jeanne Carr, Executive Director and CIO
Michael Lunter, Finance Coordinator

PREPARED BY

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

DESIGNED BY

Fairfax County Public Schools
Information Technology
Multimedia Design



MISSION STATEMENT AND PRINCIPLES



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.

ERFC SLOGAN

ERFC: Enter Retirement Feeling Confident

ERFC VISION

To be a leader among our peers in providing professional and personalized service to our members and beneficiaries.

ERFC VALUES

Accountability

Operate with transparency and a commitment to think strategically while fulfilling fiduciary obligations.

Customer Service

Respond promptly with quality as we strive to exceed the expectations of our membership.

Open Communication

Provide timely and pertinent information that improves processes, removes barriers, and establishes accountabilities.

Integrity

Conduct operations by adhering to the highest standards of ethical conduct.

Continuous Improvement

Enable employees to grow and succeed through appropriate education.

PRUDENT MANAGEMENT

Adequate Funding

To maintain adequate funding of all promised benefits, and to ensure the financial integrity of the System.

Prudent Investments

To adopt comprehensive objectives, methods for evaluation of performance, and policies that ensure the highest possible investment return consistent with the prudent investment of plan assets.

Actuarial Studies

To have an annual actuarial valuation performed by an enrolled actuary in accordance with actuarial standards and to implement an actuarial experience study at least every five years.

Annual Reports

To keep, as part of the public record, annual financial, actuarial, and investment information that will be available for members and elected officers.

Financial Audits

To prepare an annual financial statement in accordance with generally accepted accounting principles, and to implement an annual audit of the System's financial statement in accordance with generally accepted auditing standards.

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ACHIEVEMENTS

PUBLIC PENSION STANDARDS AWARD

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



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2017***

Presented to

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

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

Presented by the Public Pension Coordinating Council, a confederation of

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

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

Alan H. Winkle
Program Administrator

INTRODUCTION UNAUDITED



Tucked away amid well-established foliage and lush green trees is Fairfax County Public School's newest administrative center, Willow Oaks. Here, FCPS departments are focused on excellence, equity and effectiveness for the success and achievement of over 188,000 students across 196 schools and centers. Willow Oaks is home to the Chief Academic & Equity Office, the Office of Student Testing, the Instructional Services Department, the Department of Special Services, the Office of Professional Learning and Family Engagement, the Office of School Support and the Department of Facilities and Transportation Services.



**EQUITY DOESN'T
MEAN THE SAME FOR
EVERYONE; IT MEANS
THAT EVERYONE GETS
WHAT THEY NEED.**
UNKNOWN EDUCATOR

LETTER OF TRANSMITTAL



8001 Forbes Place, Suite 300
Springfield, VA 22151

December 1, 2017

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, 2017. The ERFC management holds responsibility for the financial information presented in this report. Proper internal accounting controls exist to provide reasonable, but not absolute, assurance for both the safekeeping of assets and the fair presentation of the financial statements. The concept of reasonable assurance recognizes that 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. For financial reporting purposes, the ERFC is considered a component unit of the Fairfax County Public Schools, Fairfax County, Virginia. As such, 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 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 scheduled to take effect in the new fiscal year.

Administration Updates

Communication activities to increase the understanding and appreciation 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 32 schools and administrative centers, explaining to members the provisions and importance of their retirement benefits. To better understand the needs of our members, we conducted a member survey in February, the first since 2013. We also added to our social media presence by creating a Twitter handle, @erfccomm.

The ERFC staff continued its efforts to implement technology innovations that will result in improved efficiencies, reduced risk and/or cost savings. As part of its "ERFC Going Paperless" campaign, ERFC began distributing audited benefit estimates electronically. We implemented responsive design for ERFC's online service, *ERFCDirect*, which streamlined its use on mobile devices and tablets. ERFC continued to promote *ERFCDirect*, and over 23,000 active and retired members now use the online service, up from 20,000 a year ago.

Strategic Plan

During the year, the ERFC staff implemented several action items included in the 2015 Strategic Plan. Staff expanded its "Ambassador Program," a group of select employee representatives who act as ERFC retirement plan resources for their peers in the workplace. Staff conducted four training sessions for those who volunteered for the program and the ambassadors now total 41.

The Board of Trustees engaged Cost Effectiveness Management (CEM), a benchmarking company, to conduct a comparison study of ERFC to other retirement systems, focusing on service and cost to customers. The study showed that ERFC provided high customer service at a lower cost compared to other U.S. and international retirement systems.

The Board of Trustees conducted an asset liability study in conjunction with its investment consultant, New England Pension Consultants (NEPC). The study, which is undertaken every five years, took a comprehensive approach to analyze risk and return in terms of the overall Plan. The Board determined, based on the study's conclusions, that it should reduce its absolute return exposure and increase its allocation to private real estate in order to improve the Plan's risk/return profile.

LETTER OF TRANSMITTAL

Plan Financial Condition

The ERFC Fund earned a 12.3 percent return on investments in fiscal year 2017, which exceeded the actuarial assumed return of 7.25 percent that ERFC uses to determine its employer contribution rate. For the year, ERFC also outperformed its policy index by 2.2 percent due to outperformance by several of its managers in the asset classes of domestic equity, international developed equity, domestic fixed income and global asset allocation.

ERFC's independent actuary reported that the System's funding ratio declined slightly from 76.0 percent to 75.2 percent for the valuation period ending December 31, 2016, due to unfavorable investment performance in the prior 2016 calendar year, higher than anticipated pay increases and improved post-retirement mortality; these contribution rate increases were offset by favorable demographic experience. The recommended employer contribution rate increased to 6.24 percent of payroll from 5.60 percent for fiscal year 2018, due to incorporation of assumption changes from the Board's actuarial experience study which were offset by the ERFC 2001 Plan changes discussed earlier.

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 12.3 percent for FY 2017 outperformed the benchmark index return of 10.1 percent and matched its peer systems for the fiscal year with the median fund returning 12.3 percent. This peer system outperformance occurred despite lower domestic equity exposure in ERFC's portfolio than its peer group. The Fund's 25 percent U.S. equity allocation was lower than the median fund's 28.5 percent allocation and domestic equity returned double digits for the fiscal year, with the index up 18.5 percent. International developed markets were also positive and ERFC's higher than peer allocation to developed international equity and global asset allocations contributed to ERFC's higher than peer rankings. The Fund's longer-term return remained strong with the seven-year return of 8.8 percent exceeding the policy index return of 8.3 percent.

The Board continued implementation of its private equity program during the fiscal year. Additional calls of capital commitments increased the private equity allocation to 3.0 percent of the Fund. In March, the Board made a \$20 million commitment to the HIPEP VIII Partnership Fund, a HarbourVest global private equity portfolio with exposures to Europe, Asia Pacific and emerging markets. The Board also reduced its absolute return exposure from 8 percent to 5 percent of the Fund. The Investment Section of this report provides further details regarding the Fund's activities and performance.

Professional Services

The ERFC Board of Trustees appoints professional services to provide aid in the efficient management of the System. New England Pension Consultants (NEPC), based in Boston, Massachusetts, provides investment consulting services, and Gabriel, Roeder, Smith &

Company, of Southfield, Michigan, 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 2016 Comprehensive Annual Financial Report (CAFR). This is the 20th 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 the ERFC recently, granting the System the **Public Pension Standards' 2017 Award**. The ERFC earned the award in recognition for meeting or exceeding professional standards for plan design and administration, as set forth in the Public Pension Standards.

Conclusion

This report is produced through the combined efforts of the ERFC staff and advisors functioning under your leadership. It is intended to provide complete and reliable information that will advance the management decision process, serve as a means for determining compliance with legal requirements, and allow for an assessment of the stewardship of the System's funds. As the last annual report prior to the current Executive Director's retirement, she extends her sincere appreciation to the Board of Trustees, the ERFC staff and all those who have supported her during her 13-year tenure at ERFC.

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. Copies are made available in print and electronically, with the full report posted on the ERFC website at www.fcps.edu/erfc. We hope that all recipients find the report informative and useful.

Respectfully submitted,



Jeanne Carr, CFA
Executive Director
and CIO



Michael Lunter
Finance Coordinator

LETTER FROM THE CHAIRPERSON



8001 Forbes Place, Suite 300
Springfield, VA 22151

December 8, 2017

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, 2017. The ERFC Board and staff continues to commit itself to its mission of the financial security of its 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. Kathie Pfeffer-Hahn was elected to her first three-year term as an ERFC trustee. Daryl Richards was elected as Chairperson in July 2017 and Kimberly Adams was re-elected as Vice Chairperson. The School Board reappointed Marty Smith, the FCPS Chief of Staff; Susan Quinn, the FCPS Chief Operating Officer; Kristen Michael, the FCPS Assistant Superintendent for the 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 completed several action items included in the 2015 Strategic Plan. The expansion of ERFC's Ambassador Program to 41 employees, who serve as ERFC ambassadors and plan resources for their peers, furthered the Board's customer service goal of responding promptly with quality to exceed the expectations of its membership. The 2017 member survey results indicated that 62 percent of the respondents strongly agreed or agreed that ERFC provides them with a valuable benefit, up from 50 percent in the 2013 survey, proving that the Board's increased emphasis on member communication has worked. The Board of Trustees completed its asset liability study this year to determine if the ERFC asset allocation was appropriate and made minor changes to the asset class targets as a result.

LETTER FROM THE CHAIRPERSON

The Board is pleased with the 12.3 percent return on investments for the 2017 fiscal year period; the seven-year return of 8.8 percent since the financial downturn was comfortably in excess of its 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.

The School Board increased FCPS' employer contribution rate from 5.60 percent to 6.24 percent of covered payroll for the 2018 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. Although concerned about the ability of the strong domestic equity markets to continue, 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.

As my seven-year tenure on the ERFC Board ends with the 2017 fiscal year, I extend my sincere thanks to my fellow Trustees, ERFC Executive Director Jeanne Carr, the ERFC staff and all members of the ERFC for their continued support during my term as Trustee. It has been a pleasure to work together to ensure a predictable source of supplemental retirement income to the members of the ERFC. I have confidence that the new Chairperson, Board and staff will continue the efforts of their predecessors to provide a secure retirement for career FCPS employees.

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,



Nancy Hammerer
Past 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.



Nancy Hammerer
Chairperson/Trustee
Elected Member



Kimberly Adams
Vice Chairperson/
Trustee
Elected Member



Kristen Michael
Treasurer/Trustee
Appointed Member



Susan Quinn
Trustee
Appointed Member



Michael Burke
Individual Trustee
Appointed Member

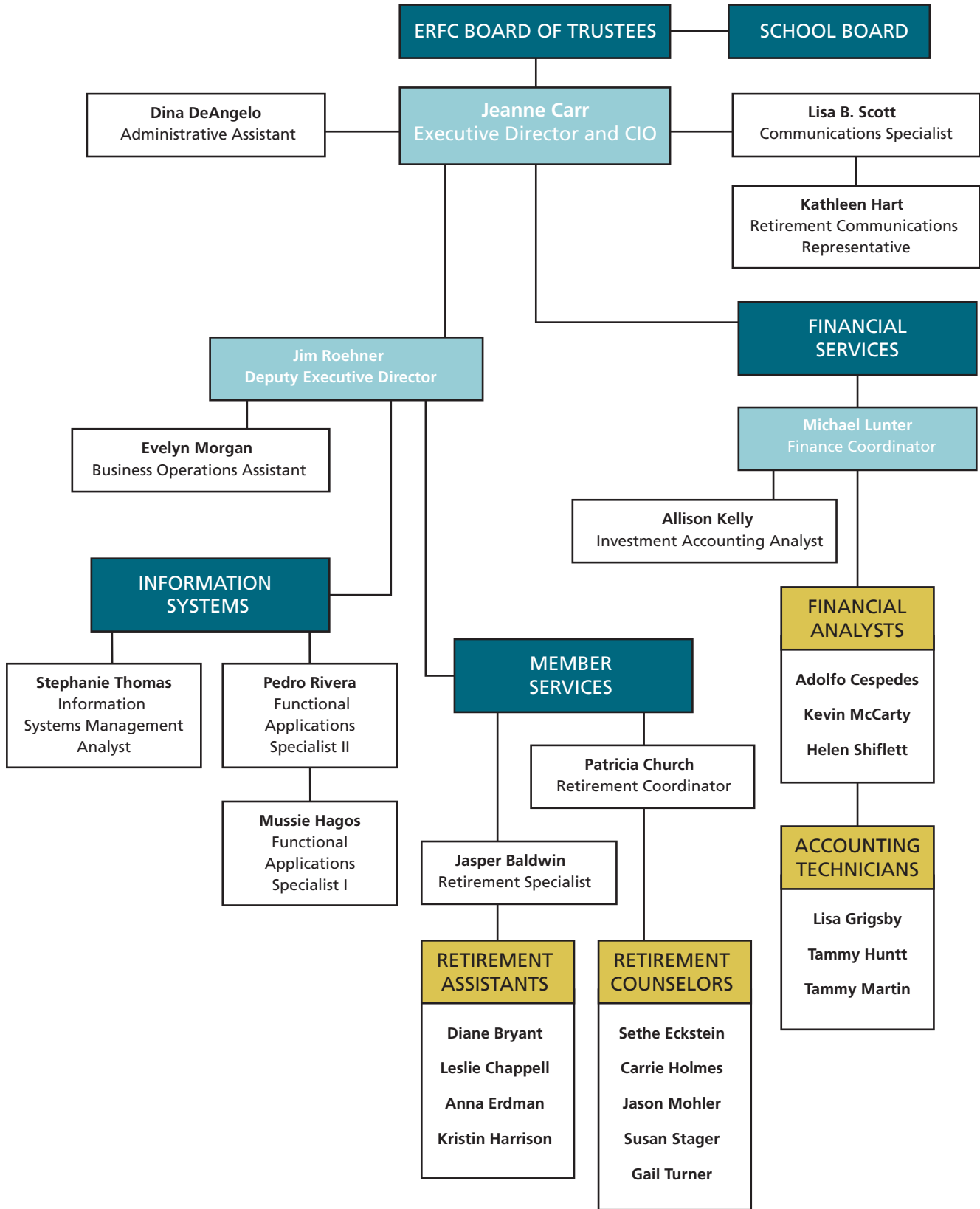


Marty K. Smith
Trustee
Appointed Member



Daryl Richards
Trustee
Elected Member

ERFC ADMINISTRATIVE ORGANIZATION



INTRODUCTION

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

JP Morgan Asset Management
New York, New York

PGIM Real Estate
Parsippany, New Jersey

Center Square Investment Management
Plymouth Meeting, Pennsylvania

UBS Trumbull Global Asset Management
Hartford, Connecticut

Other Service Providers

ACTUARY

Gabriel, Roeder, Smith & Company
Southfield, Michigan

AUDITOR

Cherry Bekaert LLP
Certified Public Accountants
Richmond, Virginia

INVESTMENT CONSULTANT

New England Pension Consultants
Boston, Massachusetts

LEGAL COUNSEL

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

Groom Law Group, Chartered
Washington, D.C.

MASTER CUSTODIAN

BNY Mellon
Pittsburgh, Pennsylvania

The Schedule of Brokerage Commissions can be found on page 51.

FINANCIAL



“THE GOALS OF EQUITY MUST BE TO CREATE CONDITIONS THAT ALLOW ALL TO REACH THEIR FULL POTENTIAL.” ANGELA GLOVER BLACKWELL



FINANCIAL

The Chief Academic and Equity Office focuses on raising student achievement, eliminating achievement gaps and supporting equitable opportunities for all FCPS students. The office coordinates curriculum development, implements division-wide student testing and provides professional learning opportunities for staff. The Chief Academic and Equity Officer oversees the offices of student testing, professional learning and family engagement, and the Thomas Jefferson High School for Science and Technology Admissions, as well as the departments of instructional and special services.

REPORT OF INDEPENDENT AUDITOR



Report of Independent Auditor

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

Report on the Financial Statements

We have audited the accompanying basic financial statements of the Educational Employees' Supplemental Retirement System of Fairfax County (the "System"), a pension trust fund of the County of Fairfax, Virginia, as of and for the year ended June 30, 2017, 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, 2017, 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, schedule of contributions, schedule of changes in net pension liability and related ratios, and schedule of investment returns 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, summary of significant changes to the pension system, schedule of administrative expenses, schedule of investment expenses, schedule of professional service fees, investment section, actuarial section, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The summary of significant changes to the pension system, schedule of administrative expenses, schedule of investment expenses, and schedule of professional service fees are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the summary of significant changes to the pension system, schedule of administrative expenses, schedule of investment expenses, and schedule of professional service fees are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introduction section, investment section, actuarial section, and statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 14, 2017, 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 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 internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.



Tysons Corner, Virginia
November 14, 2017

MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

This discussion and analysis of the Educational Employees' Supplementary Retirement System of Fairfax County (ERFC) financial performance provides an overview of the financial activities for the fiscal year ended June 30, 2017. 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 2017 the return on ERFC's assets was 12.3 percent¹. This resulted in a total net position value of \$2.304 billion, which reflects an increase of \$196.7 million over fiscal year 2016'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 \$251.0 million in investment gains and \$123.2 million in employee and employer contributions. The net addition is offset by \$168.8 million in retiree benefit payments and \$8.7 million in member refunds and administrative expenses.

ERFC's time-weighted 12.3 percent return exceeded the policy benchmark return of 10.1 percent². Three, five, and ten year returns are 4.5 percent, 8.1 percent, and 5.0 percent, respectively. The time-weighted rate of return measures the compound growth rate of the System's investments, gross 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

ERFC FUND BALANCES (\$ in millions)

Fiscal Year	Ending Balance	Net Change	
		Dollars	Percent
2013	1,956.8	129.0	7.1
2014	2,204.9	248.1	12.7
2015	2,179.7	(25.2)	(1.1)
2016	2,107.6	(72.1)	(3.3)
2017	2,304.3	196.7	9.3

security values, may be influenced by changes in economic conditions and market perceptions and expectations. Accordingly, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements. Additional detail regarding investment results can be found in the Investment Section of this report.

At December 31, 2016, the actuarial value of assets totaled \$2.280 billion while liabilities totaled \$3.033 billion. This resulted in a funding ratio of 75.2 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 Gross time-weighted rate of return as calculated by New England Pension Consultants.

2 Policy Index benchmark is 14.0% Russell 1000, 6.0% Russell 2000, 14% MSCI ACWI Ex-US, 3% MSCI Emerging Markets, 3.75% NAREIT, 3.75% NCREIF, 18% BBgBarc Aggregate, 4.0% BBgBarc Credit, 4.0% BBgBarc Long Credit, 7.5% MS World Net, 7.5% Citi World Govt Bond, 8.0% HFRI FoF, 3.5% Cambridge PE, 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.

SUMMARY OF FIDUCIARY NET POSITION

	June 30,2017	June 30,2016	Difference
Assets			
Total cash and investments	\$ 2,476,319,109	\$ 2,248,958,425	\$ 227,360,684
Total receivables	9,695,130	16,310,307	(6,615,177)
Other assets	53,546	34,914	18,632
Total assets	2,486,067,785	2,265,303,646	220,764,139
Liabilities			
Capital leases	21,991	-	21,991
Accounts payable	1,990,307	1,802,640	187,667
Securities purchased	9,060,028	13,646,920	(4,586,892)
Securities lending collateral	170,713,805	142,266,388	28,447,417
Total liabilities	181,786,131	157,715,948	24,070,183
Total net position restricted for pensions	\$ 2,304,281,654	\$ 2,107,587,698	\$ 196,693,956

MANAGEMENT DISCUSSION AND ANALYSIS

(Unaudited)

Financial Statements

As indicated in the Summary of Fiduciary Net Position, the System's net position value increased \$196.7 million or 9.3 percent in fiscal year 2017. This total increase in net position is due primarily to an increase of \$227.4 million in the value of investments, a decrease in receivables of \$(6.6) million, a \$4.4 million decrease in the value of payables along with an increase of \$28.5 million in securities lending collateral liabilities.

As reflected in the Summary of Additions and Deductions (below), the net change is due to \$123.2 million in contributions and \$251.0 million in net investment gains, which is offset by \$168.8 million in benefits, \$4.6 million in refunds and \$4.1 million in expenses.

Also presented in the Summary of Additions and Deductions, additional information is provided regarding the differences between the fiscal year 2016 and 2017 results. These differing results are due mainly to an increase in investment income of \$266.7 million and an increase in contributions of \$5.2 million, offset by an increase in benefits of \$3.1 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 30,2017	June 30,2016	Difference
Additions			
Contributions			
Employer	\$ 80,094,538	\$ 76,599,695	\$ 3,494,843
Member	43,062,632	41,383,642	1,678,990
Net investment income	250,981,777	(15,766,967)	266,748,744
Total Additions	374,138,947	102,216,370	271,922,577
Deductions			
Benefits	168,783,718	165,721,790	3,061,928
Refunds	4,601,865	4,626,057	(24,192)
Admin. Expenses	4,059,408	4,004,882	54,526
Total Deductions	177,444,991	174,352,729	3,092,262
Net increase in net position	\$ 196,693,956	\$ (72,136,359)	\$ 268,830,315

STATEMENT OF FIDUCIARY NET POSITION

(As of June 30, 2017)

ASSETS

Cash and short-term investments	
Cash	\$ 907,452
Cash with fiscal agent	715,724
Cash collateral for securities on loan	170,713,805
Short-term investments	33,852,955
Total cash and short-term investments	206,189,936
Receivables	
Interest and dividends	2,963,524
Securities sold	6,731,606
Total receivables	9,695,130
Investments at fair value	
Stocks	681,120,596
Fixed Income	
Asset and Mortgage Backed	1,990,909
Corporate Bonds	63,390,793
International Bonds	28,471,264
Convertible Securities	8,218,114
U.S. Government Obligations	18,415,390
Preferred Securities	5,232,652
Real Estate	180,237,145
Global Asset Allocation	236,687,821
Better Beta	112,371,447
Hedge Fund of Funds	90,512,487
Private Equity	68,818,151
Commingled Fixed Income Funds	493,892,323
Commingled Equity Funds	280,770,081
Total investments	2,270,129,173
Other assets	
Furniture and equipment	141,687
Accumulated depreciation	(88,141)
Total other assets	53,546
Total assets	2,486,067,785
LIABILITIES	
Capital leases	21,991
Accounts payable	1,990,307
Securities purchased	9,060,028
Securities lending collateral	170,713,805
Total liabilities	181,786,131
Net position restricted for pensions	\$ 2,304,281,654

See accompanying Notes to the Financial Statements

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

(For the Fiscal Year Ending June 30, 2017)

ADDITIONS

Contributions	
Employer	\$ 80,094,538
Plan members	43,062,632
Total contributions	123,157,170
Investment income	
Net appreciation in fair value of investments	223,619,057
Interest and dividends	33,416,321
Real estate income	6,580,592
Total investment income	263,615,970
Less investment expenses	
Investment management fees	12,633,978
Investment consulting fees	438,865
Investment custodial fees	188,984
Investment salaries	236,189
Total investment expenses	13,498,016
Income from securities lending activities	
Securities lending income	1,795,875
Securities lending management fees	(932,052)
Net securities lending income	863,823
Net investment income	250,981,777
Total additions	374,138,947
DEDUCTIONS	
Benefits	168,783,718
Refunds	4,601,865
Administrative expense	4,059,408
Total deductions	177,444,991
Net increase	196,693,956
Net assets held in trust for pension benefits	
Beginning of year	2,107,587,698
End of year	\$ 2,304,281,654

See accompanying Notes to the Financial Statements

NOTES TO THE FINANCIAL STATEMENTS

(For The Fiscal Year Ending June 30, 2017)

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 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.

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, 2016, the date of the most recent actuarial valuation, the System's membership consisted of:

Retirees and beneficiaries currently receiving benefits	11,367
Terminated employees entitled to benefits but not yet receiving them	4,446
Active plan members	21,748
Total	37,561

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

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

Death-in-Service, and Deferred Retirement. *ERFC 2001's* payment types include Service Retirement, Death-in-Service, and Deferred Retirement. Minimum eligibility requirements for full service benefits for *ERFC* is either (a) age 65 with 5 years of service or (b) age 55 with 25 years of service. Minimum eligibility requirements for full service benefits for *ERFC 2001 Tier 1* is either (a) age 60 with 5 years of service or (b) any age with 30 years of service. Minimum eligibility requirements for full service benefits from *ERFC 2001 Tier 2* is either (a) age and service equal 90 (the rule of 90) or (b) full Social Security age with five years of service. Annual post-retirement cost-of-living (COLA) increases of 3 percent are effective each March 31 for *ERFC* and *ERFC 2001 Tier 1* members. Participants in their first full year of retirement from *ERFC* and *ERFC 2001 Tier 1* receive a 1.49 percent increase. Participants who retire on or after January 1 receive no COLA increase that first March. Under *ERFC 2001 Tier 2*, the first COLA will equal approximately half of the full COLA amount. Thereafter, the full COLA will equal 100 percent of the Consumer Price Index for all Urban Consumers (CPI-U) for the Washington, D.C. metropolitan area for the period ending in November of each year, capped at 4%. 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 applicable to governmental units in the United States of America. *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 GASB Statement No. 67. 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 generally accepted accounting principles. 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 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.

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

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

Investments measured at fair value and investments measured at net asset value (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.

Notes, continued on next page

INVESTMENTS MEASURED BY FAIR VALUE HIERARCHY LEVEL

Investments by fair value level	6/30/17	Fair Value Measures Using		
		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
		Level 1	Level 2	Level 3
Short-term securities	\$ 33,852,955	\$ 6,984,683	\$ 26,868,272	
Debt securities				
Asset and mortgage backed	1,990,909	-	1,990,909	-
Corporate bonds	63,390,793	-	63,390,793	-
International bonds	28,471,264	-	28,471,264	-
Convertible securities	8,218,114	357,591	7,860,523	-
US Government Obligations	18,415,390	-	18,415,390	-
Total debt securities	120,486,470	357,591	120,128,879	-
Equity investments				
Basic industries	119,548,890	119,548,467	-	423
Consumer services	234,336,533	234,336,533	-	-
Financial industries	127,097,342	127,097,342	-	-
REITS	16,792,787	16,792,787	-	-
Technology	159,178,849	159,178,849	-	-
Utilities	24,166,195	24,166,195	-	-
Preferred securities	5,232,652	5,105,352	127,300	-
Total equity investments	686,353,248	686,225,525	127,300	423
Total investment and short-term securities measured by fair value hierarchy level	\$ 840,692,673	\$ 693,567,799	\$ 147,124,451	423

NOTES TO THE FINANCIAL STATEMENTS

- Commingled Emerging Markets Debt Funds**
 This fund invests in fixed income securities of “emerging” or developing countries to achieve high current income and long-term capital growth.
- 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, 2017, it is probable that all of the investments in this type will be sold at an amount different from the NAV per share of the plan's ownership interest in partners' capital.

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

Notes, continued on next page

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

	6/30/17	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equity investments				
Commingled large cap equity funds	\$ 188,864,262	\$ -	Daily	None
Commingled emerging markets equity funds	91,905,819	-	Daily	3 days
Total equity investments measured at the NAV	280,770,081	-		
Fixed income investments				
Commingled domestic fixed income funds	293,686,326	-	Daily	None
Commingled emerging markets debt funds	66,707,120	-	Monthly	30 days
Commingled unconstrained fixed income funds	133,498,877	-	Daily, Semi-monthly	1-30 days
Total fixed income investments measured at the NAV	493,892,323	-		
Private equity - private equity partnerships	68,818,151	76,764,219	Not eligible	N/A
Global asset allocation - commingled GAA funds	236,687,821	-	Daily, monthly	1-30 days
Better beta - commingled better beta funds	112,371,447	-	Monthly	5 days
Real estate - commingled real estate equity funds	180,237,145	-	Daily, quarterly	1-90 days
Absolute return - commingled absolute return funds	90,512,487	-	Monthly	30 days
Total investments measured at the NAV	\$ 1,463,289,455	\$ 76,764,219		
TOTAL INVESTMENTS AND SHORT-TERM SECURITIES	\$ 2,303,982,128			

NOTES TO THE FINANCIAL STATEMENTS

- **Commingled Real Estate Equity Funds**

One of the funds in this category actively manages a core portfolio of U.S. equity real estate investments to maximize income. The second fund in this category 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.

- **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, 2017, the cash balance of \$907,452 represents funds that could not be invested in the County's enhanced cash fund until July 1, 2017.

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, 2017, cash with the fiscal agent totaled \$715,724. 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 5.6 percent for fiscal year 2017. 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, 2013 valuation recommended that the contribution rate for the two-year period beginning July 1, 2015 to June 30, 2017 remain at 5.6 percent. Restructuring of the VRS employee contribution rate caused the School Board to decrease the ERFC member contribution rate to 3 percent beginning in fiscal year 2013.

3. Net Pension Liability Disclosures

The components of ERFC's net pension liability at June 30, 2017 were as follows:

Total Pension Liability	\$ 3,094,309,317
Plan Fiduciary Net Position	2,304,281,654
Net Pension Liability	\$ 790,027,663
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	74.47 %

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2016,

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

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. New England Pension Consultants supplied the information in the table.

The investment consultant's inflation expectation is 2.75%. The Global Asset Allocation category is a blend of Global Equity, Global Fixed Income, and Inflation Sensitive Assets (commodities).

Pension Liability Sensitivity

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the table on the following page presents the plan's net pension liability, calculated using a single discount rate of 7.25% as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%):

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

The Schedule of Changes in Net Pension Liability and Related Ratios, presented as RSI following the

Notes, continued on next page

METHODS AND ASSUMPTIONS USED TO DETERMINE FY 2017 TOTAL PENSION LIABILITY:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	23 years from July 1, 2017
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	Last updated for the 2015 valuation pursuant to an experience study of the period 2010-14.
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

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%
\$ 1,184,458,892	\$ 790,027,663	\$ 466,773,331

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 no significant investment policy changes during the fiscal year. The Fund's asset structure is enumerated in the investment policy and reflects a proper balance of the Fund's needs for liquidity, growth of assets and the risk tolerance of the Trustees. The target asset mix, consistent with the achievement of the long-term objective of the Fund is presented on the following page.

Notes, continued on next page

ASSET ALLOCATION

Asset Class	Long-Term Expected Real Rate Of Return
Domestic Large Cap Equity	5.92%
Domestic Small Cap Equity	6.71%
International Equity	6.71%
Emerging Market Equity	9.70%
Real Estate	5.15%
Core Fixed Income	1.38%
Diversified Fixed Income	2.83%
Absolute Return Fixed Income	1.79%
Emerging Market Debt (Local)	4.62%
Global Asset Allocation	4.91%
Absolute Return	3.95%
Private Equity	8.73%
Risk Parity	4.47%

NOTES TO THE FINANCIAL STATEMENTS

Security Class	Strategic Targets as of June 30, 2017
Domestic Large Cap Equity	13.0 %
Domestic Small Cap Equity	5.5
International Equity	17.0
Real Estate	7.5
Fixed Income	29.0
Global Asset Allocation/ Better Beta	15.0
Absolute Return	8.0
Private Equity	5.0
Cash	-
Total	100.0 %

Rate of Return

For the year ended June 30, 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 12.14% 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 described above, ERFC invests in derivative instruments on a limited basis in accordance with the Board of Trustees' investment policy. Investment in derivatives allows the System to increase earnings and/or hedge against potential losses. The risks associated with derivative investments include market risk resulting from fluctuations in interest and currency rates, the credit worthiness of counter parties to any contracts entered into, and the credit worthiness of mortgages related to collateralized mortgage obligations (CMOs). Specific authorization by the Trustees is required should investment managers seek to purchase securities on margin or leverage.

During the fiscal year, the System invested in CMO derivatives. These derivatives are securities created using the underlying cash flows from mortgage securities as collateral. As of June 30, 2017, the fair value of the CMOs was \$94,403, which is included in the mortgage-backed securities classification on the financial statements. The change in fair value during the fiscal year is reported in the net appreciation in fair value of investments.

In addition, 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. At June 30, 2017, exposure to interest rate swaps was \$(20,403,548), exposure to interest rate caps

Notes, continued on next page

NOTES TO THE FINANCIAL STATEMENTS

was \$1,651,106, exposure to futures contracts was \$14,574,221, exposure to NDFs was \$(34,717), exposure to forward commodity contracts was \$(104,579), exposure to currency forward contracts was \$4,607,179, exposure to options was \$3,016,753, and exposure to CDS was \$805,658.

Regarding certain risk factors, the Governmental Accounting Standards Board Statement No. 40, *Deposit and Investment Risk Disclosures*, requires that state and local 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, 2017, 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, 2017

Investment Category	Amount	Effective Duration	Percentage of Fixed
Asset and Mortgage Backed	1,990,909	3.13	1.7%
Convertible Securities	8,218,114	1.93	6.8%
Corporate Bonds	63,390,793	6.26	52.6%
International Bonds	28,471,264	5.93	23.6%
US Government Obligations	18,415,390	4.90	15.3%
Total	\$ 120,486,470		100.00%
<i>* Weighted Duration in years: 5.62</i>			
Short-term			
Short-term Investment Funds	19,856,385	0.03	
US Treasury Bills	13,996,570	0.14	
Total Short-Term	\$ 33,852,955		

NOTES TO THE FINANCIAL STATEMENTS

CREDIT QUALITY SUMMARY AS OF JUNE 30, 2017

Investment Type	Amount	Rating	Percent of Fixed
US Government Obligations	\$ 18,415,390	AAA	15.3%
Asset and Mortgage Backed	94,403	AAA	0.1%
	1,896,506	A	1.6%
Convertible Securities	171,860	A	0.1%
	3,895,867	BBB	3.2%
	2,310,779	BB	1.9%
	1,211,673	B	1.0%
	627,935	D	0.5%
Corporate Bonds	659,689	AA	0.6%
	7,008,287	A	5.8%
	26,702,849	BBB	22.2%
	18,907,051	BB	15.7%
	7,706,276	B	6.4%
	2,406,641	CCC	2.0%
International Bonds	7,608,017	AAA	6.3%
	1,830,273	AA	1.5%
	5,608,448	A	4.7%
	6,593,622	BBB	5.5%
	5,459,641	BB	4.5%
	1,371,263	B	1.1%
Total Fixed Income	\$ 120,486,470		100.0%
Short-Term			
Short-term Investment Funds	19,856,385	Unrated	
US Treasury Bills	13,996,570	AAA	
Total Short-Term	33,852,955		

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, 2017, 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 \$90.6 million, \$216.3 million, \$183.1 million and \$66.7 million. The indexed portfolio had a value of \$77.4 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 2.92 percent of that portfolio.

Deposits

At June 30, 2017, short-term investments with the custodial bank totaled \$33,852,955. 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.

Cash received as collateral and the related liability of \$170,713,805 as of June 30, 2017, are shown on the Statement of Fiduciary Net Position. As of June 30, 2017, the fair value of securities on loan for cash collateral was \$166,688,322. Securities received as collateral are not reported as assets and liabilities since ERFC does not have the ability to pledge or sell the collateral securities absent borrower default.

Notes, continued on next page

SUMMARY OF SECURITY LENDING JUNE 30, 2017

Securities	Fair Value	Cash Collateral
Domestic corporate bonds	\$ 27,786,741	\$ 28,454,057
International stock	2,358,963	2,539,085
Domestic stock	133,170,035	136,278,512
US Government	3,372,583	3,442,151
Total	\$ 166,688,322	\$ 170,713,805

NOTES TO THE FINANCIAL STATEMENTS

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, 2017, INCLUDED THE FOLLOWING:

Investment Type	Fair Value
Stocks	\$ 681,120,596
Bonds and Mortgage Securities	102,071,080
US Government Obligations	18,415,390
Preferred Securities	5,232,652
Real Estate	180,237,145
Global Asset Allocation	236,687,821
Better Beta	112,371,447
Hedge Fund of Funds	90,512,487
Private Equity	68,818,151
Commingled Fixed Income Funds	493,892,323
Commingled Equity Funds	280,770,081
Subtotal investments	\$ 2,270,129,173
Cash collateral for securities on loan	170,713,805
Total	\$ 2,440,842,978

NOTES TO THE FINANCIAL STATEMENTS

Fair Value of Foreign Currency Risk (As of June 30, 2017)						
Currency	Cash & Cash Equivalents	Equity	Fixed Income Securities	Preferred Securities	Grand Total	
AUSTRALIAN DOLLAR	\$ 113,791	\$ 7,083,702	\$ 2,936,643	\$ -	\$ 10,134,136	
BRAZIL REAL	463	26,693	-	-	27,156	
CANADIAN DOLLAR	56,124	22,904,569	771,185	-	23,731,878	
CHILEAN PESO	6,329	334,486	-	-	340,815	
DANISH KRONE	7,030	4,084,872	-	-	4,091,902	
EURO CURRENCY UNIT	411,102	77,873,756	-	4,933,921	83,218,779	
HONG KONG DOLLAR	207,175	10,094,181	-	-	10,301,356	
INDONESIAN RUPIAH	3,236	149,462	-	-	152,698	
ISRAELI SHEKEL	239	362,987	-	-	363,226	
JAPANESE YEN	182,318	51,315,937	-	-	51,498,255	
MALAYSIAN RINGGIT	33,074	2,300,043	-	-	2,333,117	
MEXICAN PESO	15,941	468,887	3,963,874	-	4,448,702	
NEW TAIWAN DOLLAR	7,104	5,519,331	-	-	5,526,435	
NEW ZEALAND DOLLAR	(1,164,728)	749,472	5,425,234	-	5,009,978	
NORWEGIAN KRONE	57,621	3,024,515	270,843	-	3,352,979	
PHILIPPINES PESO	1,480	144,427	-	-	145,907	
POLISH ZLOTY	4,280	1,293,087	-	-	1,297,367	
POUND STERLING	180,891	46,170,813	-	-	46,351,704	
QATARI RIYAL	-	125,708	-	-	125,708	
SINGAPORE DOLLAR	11,752	2,110,192	-	-	2,121,944	
SOUTH AFRICAN RAND	51,658	2,421,411	-	-	2,473,069	
SOUTH KOREAN WON	16,216	13,741,559	-	44,920	13,802,695	
SWEDISH KRONA	6,431	5,409,046	-	-	5,415,477	
SWISS FRANC	222,012	19,232,589	-	-	19,454,601	
THAILAND BAHT	-	4,134,932	-	-	4,134,932	
TURKISH LIRA	23,235	4,370,573	-	-	4,393,808	
Grand Total	\$ 454,774	\$ 285,447,230	\$ 13,367,779	\$ 4,978,841	\$ 304,248,624	

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, 2013 valuation determined the contribution rates for fiscal years 2016 and 2017.

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 employee payroll are both affected by inflation. Expressing the net pension liability as a percentage of covered employee 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 employee payroll. As addressed previously, the most recent actuarial valuation was effective December 31, 2016. 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, 2017. 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
2008	\$ 38,334,140	\$ 38,334,140	\$ -	\$ 1,137,511,573	3.37%
2009	37,281,658	40,012,480	(2,730,822)	1,187,313,947	3.37%
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%

REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

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

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%

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		Employee Total
	Employer	Employee	
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

- July 1, 2006 — The implementation of a Benefit Restoration Plan in order to make benefit payments in excess of the limits established by Section 415 of the Internal Revenue Code.
- April 29, 2004 – The Board of Trustees agreed to transition to calendar year actuarial valuations.

- December 18, 2003 — Effective July 1, 2004, members hired prior to July 1, 2001 (ERFC Benefit Structure), are eligible for a Level Lifetime Benefit (LLB) that is calculated by determining the annuitized value of the greater of their accumulated contribution balance or the present value of the currently provided defined benefit. The following changes apply to members hired on or after July 1, 2001 (ERFC 2001 Benefit Structure):

- The defined contribution component of the benefit structure that was to be offered as an option to members on July 1, 2006, was eliminated.
- The matching contribution provisions of the benefit structure were eliminated effective July 1, 2004. Members who met the requirements for a contribution match as of June 30, 2004, had the match credited to their accounts on June 30, 2004.
- Beginning July 1, 2004, members who retire are eligible for a minimum benefit that is calculated by determining the annuitized value of their accumulated contribution balance.

- July 24, 2003 – The Working After Retirement (WAR) program is closed to new entrants, effective June 30, 2004, which is two years earlier than originally planned.
- April 27, 2017 - ERFC members hired on or after July 1, 2017 are members of *ERFC 2001 Tier 2*. For all members, the annual interest rate credited on member accounts was reduced.

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF ADMINISTRATIVE EXPENSES

(Year Ended June 30, 2017)

Personnel services	
Salaries and wages	\$ 2,099,697
Retirement contributions	476,541
Insurance	350,830
Social security	169,157
Total personnel services	3,096,225
Professional services	
Actuarial	154,726
Legal	86,094
Payroll disbursement	47,233
Plan automation support	39,948
Strategic planning	20,000
Audit	54,867
Total professional services	402,868
Communications	
Printing	21,254
Postage	13,744
Total communications	34,998
Supplies	
Office supplies	8,670
Dues and subscriptions	6,934
Total supplies	15,604
Other services and charges	
Board travel and staff development	19,915
Equipment	164,463
Building rent	281,473
Depreciation expense and asset disposal	28,090
Miscellaneous	15,772
Total other services and charges	509,713
Total administrative expenses	\$ 4,059,408

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF INVESTMENT EXPENSES

(Year Ended June 30, 2017)

Investment management fees

Fixed income managers

Loomis-Sayles and Company, L.P.	\$ 614,703
GAM USA, Inc.	573,430
J.P. Morgan Asset Management	562,916
Mellon Capital Management Corporation	15,433
Mondrian Investment Partners (US), Inc.	367,491

Equity managers

Epoch Investment Partners, Inc.	476,327
Lazard Asset Management	338,408
Mellon Capital Management Corporation	20,628
T. Rowe Price Associates, Inc.	458,676
Westfield Capital Management	315,506

International managers

Acadian Asset Management, Inc.	659,949
Causeway Capital Management, LLC	527,895
William Blair & Company	872,240

Real Estate managers

J.P. Morgan Asset Management	508,653
PGIM Real Estate	315,807
UBS Realty Investors, LLC	351,332
CenterSquare Investment Management (formerly Urdang)	486,621

Global Asset Allocation managers

Pacific Investment Management Company	939,758
Wellington Management Company LLP	858,420

Better Beta

Bridgewater Associates	538,127
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Hedge fund of funds

Grosvenor Capital Management, L.P.	837,135
Permal Investment Management Services, Ltd.	726,797

Private equity

Audax Mezzanine Fund III, L.P.	63,520
HarbourVest Partners IX - Buyout Fund L.P.	125,365
HarbourVest Partners IX - Credit Fund L.P.	70,927
HarbourVest Partners IX - Venture Fund L.P.	125,088
HarbourVest Partners X - Buyout Fund L.P.	126,739
HarbourVest Partners X - Venture Fund L.P.	56,267
HIPEP VII Partnership Fund L.P.	92,517
Lexington Capital Partners VII L.P.	51,869
Lexington Capital Partners VIII L.P.	135,417
Newstone Capital Partners II, L.P.	86,882
Glouston Private Equity Opportunities IV, L.P.	65,079
Glouston Private Equity Opportunities V, L.P.	103,056
Private Advisors Buyout Fund IV, L.P.	75,000
Private Advisors Buyout Fund V, L.P.	90,000

Total investment management fees**12,633,978****Other investment service fees**

Custodial fees - Mellon Trust	188,984
Investment consultant fees—New England Pension Consulting, Inc.	435,683
Foreign tax consulting—Pricewaterhouse Coopers	3,182
Investment salaries	236,189

Total other investment service fees**864,038****Total investment expenses****\$ 13,498,016**

OTHER SUPPLEMENTARY INFORMATION

(Unaudited)

SCHEDULE OF PROFESSIONAL SERVICE FEES

(Year Ended June 30, 2017)

Service Provider	Nature of Service	Amount
Gabriel, Roeder, Smith & Company	Actuary	\$ 154,726
Levi, Ray & Shoup, Inc.	Plan automation support	37,192
Bredhoff & Kaiser, P.L.L.C.	Legal counsel	81,988
Groom Law Group, Chartered	Legal counsel	4,106
ADP payroll services	Pension disbursement	47,233
Cherry Bekaert LLP	Audit	54,867
CEM Benchmarking, Inc.	Strategic Planning	20,000
Various	Miscellaneous	2,756
Total professional service fees		\$402,868

INVESTMENT UNAUDITED



INVESTMENT

AN
INVESTMENT
IN
KNOWLEDGE
PAYS THE
BEST
INTEREST.
BENJAMIN
FRANKLIN

The mission of the **Department of Special Services** is to assist schools in meeting the unique needs of identified students. Included under the department are nontraditional school programs, psychology and social work services, student safety and wellness, and the office of special education instruction.

The **Instructional Services Department** uses current research-based best practices to guide instruction that provides the opportunity for every student to thrive through engagement and inspiration. The department oversees counseling, college and career readiness, early childhood curriculum and grant management, ESOL services, and K-12 curriculum and instruction. The Office of Operations and Communications is also a branch of Instructional Services, supporting finances, administration, logistics, technology and Adult and Community Education (ACE).

CONSULTANT REPORT ON INVESTMENT ACTIVITY



NEPC, LLC

October 30, 2017

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

Dear Board Members,

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, 2017.

As of the June 30th fiscal year-end, the Fund was in compliance with policy ranges¹ with 42.4% in equities, 7.8% in real estate equity, 27.6% in bonds, 3.9% in hedge fund strategies, 3.0% in private equity, 15.2% in global asset allocation/better beta strategies, and 0.1% in cash.

On a gross basis, the Fund earned a return of 12.3%² for the one year period ending June 30, 2017, and ranked in the 50th percentile of all public funds within the InvestorForce Universe. Over the same period, ERFC outperformed its assumed actuarial return target of 7.25% by 5.05%. Fund assets increased from \$2.1 billion as of fiscal year-end 2016 to approximately \$2.3³ billion as of fiscal year-end 2017.

Market Commentary and Fund Performance (gross returns):

While the victory of President Trump in the US elections caught the attention of investors worldwide and propelled risk assets in late 2016, the surge of global equity performance continues in 2017 and has been driven mostly by strong corporate earnings and improved economic health across the globe.

US growth measures were more upbeat in the 2nd quarter of 2017, with GDP registering at an annualized 3.1%, rebounding nicely from the 1st quarter of only 1.2%. The increase in real GDP reflected positive contributions from consumer spending. The consumer's assessment of current conditions remains quite favorable and their expectation is that the economy can continue to expand. With the unemployment rate now at 4.3%, the lack of inflationary pressures is notable. Wage growth remains muted and Core CPI remains below 2%. Low inflation has not deterred the Federal Reserve from its path to slow and steady monetary tightening.

European Central Bank (ECB) has started to implement a less accommodative monetary policy stance by slowing the pace of quantitative easing (QE). Asian economies have a similar policy outlook. In September 2016, the Bank of Japan made a substantial change to

¹ According to the new policy approved during the April 2017 meeting

² Return data for the Fund was reconciled from manager provided time-weighted returns that were calculated in accordance with the CFA Institute's Global Investment Performance Standards (GIPS).[®] Valuations, where available, are based on published national securities exchange prices, as provided by ERFC's custodian, BNY Mellon.

³ The fund assets presented in the investment section are reported at fair value.

CONSULTANT REPORT ON INVESTMENT ACTIVITY



its monetary program, announcing that it would adjust its QE purchases in order to target stable longer-term yields. This move may assist the bank with controlling the appreciation of the yen, which has weighed heavily on the Japanese economy. China is dealing with high corporate debt and the need to manage nonperforming loans in its banking system. Concerns have also remained about the possibility of a “hard” Brexit and whether British Prime Minister Theresa May will be able to begin a formal process of withdrawal from the EU.

Domestic Equity:

Within the US, the S&P 500 Index moved 18% higher for the fiscal year, despite some mixed data and political uncertainty around the ability of the White House to push through its policies. Technology stocks have exhibited some of the strongest momentum within the S&P 500 sectors. While value stocks had outperformed growth and small cap outperformed large cap in the second half of 2016, we saw a reversal occur early in 2017 where growth stocks outperformed value and large cap outperformed small cap.

Portfolio:

For the fiscal year 2017, the equity composite held \$577 million (25% of the total fund) in domestic equities. The Total Domestic Equity Portfolio returned 21.9%, outperforming the Russell 3000 Index return of 18.5%, by 340 basis points.

As risk assets climb new peaks, investors are also emboldened by the markedly low readings of volatility. In the US, the VIX, a prominent bellwether of market volatility, has dipped to new lows. Outside of US equities, the markets for other assets—ranging from European stocks and Treasuries, to currencies—are also experiencing historically low levels of volatility. Low market volatility may be somewhat explained by the extended US economic cycle, the so-far smooth transition of China’s manufacturing economy to a service-oriented one, and the rise of an anti-establishment rookie politician in France who was voted to power by a disenchanted electorate. These events have provided a market-friendly backdrop for global equities and other risk assets.

Adding to the market’s complacency is the Fed, which has been sticking to its measured pace of well telegraphed rate hikes. Periods of subdued volatility have gone hand-in-hand with the Fed’s extraordinary quantitative easing programs that were undertaken in the aftermath of the financial crisis. The current low volatility is reminiscent of the levels seen at the height of the Fed’s accommodative policies. That said, it is puzzling that market volatility has fallen even further following the Fed outlining its plan to reduce its \$4.2 trillion balance sheet holdings of Treasuries and mortgage-backed securities amassed since the crisis. While the Fed is yet to announce a start date, the market expects the central bank to begin shrinking its balance sheet in the fourth quarter. Based on the Fed’s outline, its holdings would decline to about \$2 trillion over five years but the Fed still holds the option to deviate from its plan to reduce its balance sheet. Nevertheless, it is clear that the vast and unprecedented amounts of global liquidity, which have been a constant since the financial crisis, are on the decline. The withdrawal of this excess from markets, no matter how gradual, does not reconcile with the persistence of today’s subdued market variability and will likely give rise to volatility in the coming years.

International Equity:

For fiscal year 2017, global equities as measured by the MSCI ACWI Index returned 22% with Financials, Industrials, Information Technology, and Materials leading on a sector basis.

CONSULTANT REPORT ON INVESTMENT ACTIVITY



Excluding the US, developed markets posted gains of 20.3% for the fiscal year, according to the MSCI EAFE Index. Risk appetite, strong earnings season led by financial companies, and improved consumer confidence were the driver of returns. In addition, the euro's currency appreciation versus the US dollar remained a tailwind for US dollar-centric investors. Eurozone's fiscal and monetary policies have been expansionary and may remain as core inflation remains below the European Central Bank's (ECB) target. However, solid growth momentum could push the ECB to begin tapering and slow down its bond purchases as early as 2018.

Emerging market equities outperformed their developed markets counterparts with gains of 24% for the fiscal year, according to the MSCI EM Index. Positive earnings, the cooling of inflation, US dollar weakening and the continued global recovery all contributed to performance. Recent data from China gives cause for optimism that its economy is stabilizing, with better than expected GDP growth. Brazilian stocks reacted positively to the conviction of former President Lula on corruption charges. Russia has benefited from recent higher oil prices. India's positive sentiment along with lower inflation levels allows central banks to cut interest rates from high levels and provide a more growth oriented environment. While external and domestic challenges remain, these markets are now in a better position to be able to handle them.

Portfolio

For the fiscal year 2017, the international developed equity composite held \$332 million (14.4% of the total fund). The total international equity portfolio returned 22.4%, outperforming the MSCI ACWI ex USA of 20.5%, by 190 basis points.

The emerging market equity composite held \$70 million (3% of the total fund). The total emerging market equity composite returned 22.1%, underperforming the MSCI Emerging Market Index of 23.7% by 160 basis points.

Fixed Income:

With expectations of higher interest rates and inflation in anticipation of the policies of the new administration, fixed income was down -0.3% for the fiscal year 2017, according to the Barclays Aggregate Index. Rates rose and bond prices fell in the second half of 2016 however the opposite was true in the first half of 2017. We saw both interest rates and the US dollar decline, which lead to easier financial conditions and was a supportive backdrop for equity returns. The US dollar decline also helped alleviate pressure on foreign revenues and earnings, especially for large cap multinational companies.

Portfolio:

For the fiscal year 2017, the total domestic fixed income composite held \$567 million (24.6% of the total fund). The composite returned 4.4%, outperforming the Barclays US Aggregate of -0.3%, by 470 basis points.

Other fixed income risk assets were also in the black: domestic high-yield bonds rallied and were up 4.5% for the fiscal year, according to the Bloomberg Barclays High Yield index. Improving economic conditions, solid housing fundamentals, and favorable demand outpacing supply have all contributed to spreads falling below their long-term averages. Emerging-market corporate and sovereign bonds generated solid performance for the fiscal year. Fueled by a boost to emerging market currencies, local debt recorded gains of over

CONSULTANT REPORT ON INVESTMENT ACTIVITY



10% for the fiscal year, higher than both hard currency, at 6% and US corporates at 4% for the same time period.

Portfolio:

For the fiscal year 2017, the total emerging market debt composite held \$67 million (2.9% of the total fund). The composite returned 8%, outperforming the JP Morgan GBI-EM index of 6.4% by 160 basis points.

Real Estate:

Core Real Estate has experienced a transition from a period of outsized appreciation over the last 7 years to a more moderate, income-driven performance. Income provided 2/3rds of the NCREIF property index performance over the fiscal year. Focusing on fundamentals, rent growth has been positive across all property types. Industrial rents grew the most than any sector over the last year. Supply and demand remain close to equilibrium in the US industrial sector.

Portfolio:

For the fiscal year 2017, the total real estate composite held \$179 million (7.8% of the total fund). The composite returned 3%, underperforming a blended real estate index of 3.7% by 70 basis points.

Hedge Funds:

Hedge funds ended the fiscal year up 6.4%, according to the HFRI Fund of Funds Composite Index. Hedge fund strategies started the year in the black with equity strategies leading the charge; healthcare and technology sectors contributed significantly to the overall index. Fixed income-based relative-value arbitrage came a close second to equities, supported by convertible bonds and credit-focused multi-strategies. Event-driven strategies tapered off towards the end of the first quarter 2017 but remained positive, posting solid returns.

Portfolio:

For the fiscal year 2017, the total hedge fund composite held \$90 million (3.9% of the total fund). The composite returned 6.5%, in line with the HFRI Fund of Funds Composite Index.

The Investment Committee and Board adopted a new asset allocation policy effective July 1, 2017. This newly adopted policy shifts assets from hedge funds to private equity and real estate investments. The portfolio continues to be diversified across asset classes and remains in compliance with policy targets. During fiscal year 2017, the Plan terminated EnTrustPermal hedge fund; these assets were allocated to other asset classes.

Sincerely,

Douglas Moseley, Partner

Margaret Belmondo, CIMA®, Sr. Consultant

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

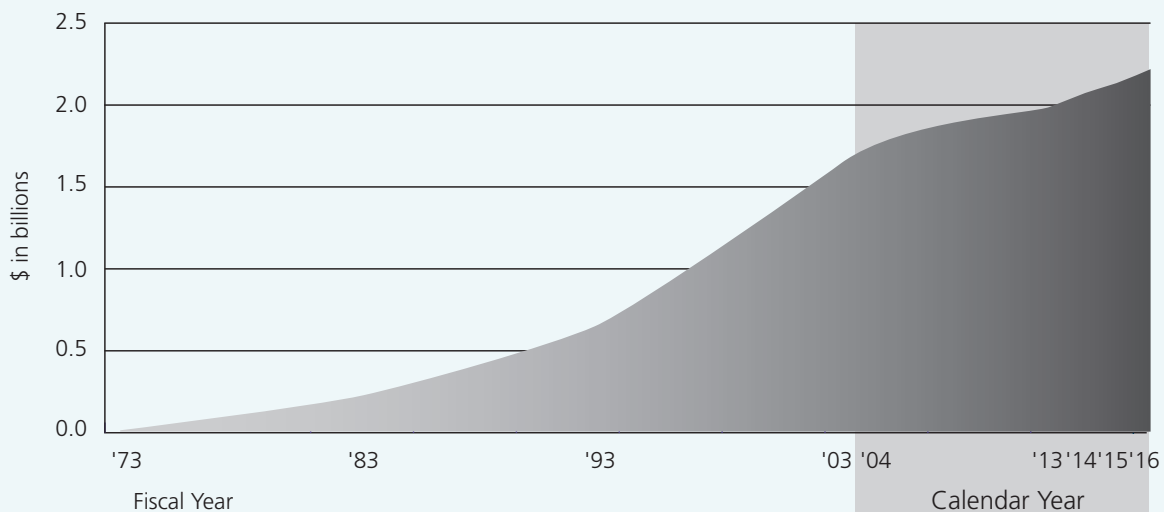
- consideration of risk tolerance; and
- the need to document and communicate objectives, guidelines and standards to the investment managers.

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, 2016 actuarial valuation)



INVESTMENT MANAGERS

ASSETS UNDER MANAGEMENT

As of June 30, 2017 (\$ in millions)

Investment Manager	Investment Type	Amount
Equities		
Large Capitalization		
Aronson Johnson Ortiz	Value	\$ 115.7
Mellon Capital Management Corp.	Core Index (Russell 1000)	188.9
T. Rowe Price	Growth	126.2
Small/Mid Capitalization		
Epoch Investment Partners, Inc.	Value	51.4
Lazard Asset Management	Core	48.1
Westfield Capital Management	Growth	46.6
International		
Acadian Asset Management	Core	134.2
Causeway Capital	Value	97.3
William Blair & Company	Growth	100.6
William Blair & Company	Emerging Market	69.7
Fixed Income		
Loomis-Sayles & Company	Core Plus	140.2
Mellon Capital Management Corp.	Core Index	77.4
JP Morgan Asset Management	Core Plus	216.3
Mondrian Investments	Emerging Market	66.7
GAM Fund Management	Unconstrained	90.6
Loomis-Sayles & Company	Unconstrained	42.9
Global Asset Allocation/Better Beta		
Bridgewater Associates, Inc.	Better Beta	112.4
Wellington Management Co.	Global Asset Allocation	122.6
Pacific Investment Management Co.	Global Asset Allocation	114.1
Hedge fund of funds		
Grosvenor Institutional Partners	Hedge Fund of Funds	90.5
Private Equity		
Audax	Private	3.7
Lexington	Private	7.6
Newstone	Private	3.1
Glouston	Private	4.5
Private Advisors	Private	15.0
HarbourVest	Private	34.0
Real Estate		
JP Morgan Asset Management	Private	32.7
PGIM Real Estate	Private	32.5
UBS Trumbull Realty Investors	Private	34.3
Center Square Investment Management	Public	79.8
Cash (temporary cash)		3.4
Total		\$ 2,303.0

ASSET STRUCTURE

Interim Strategic Target Allocation

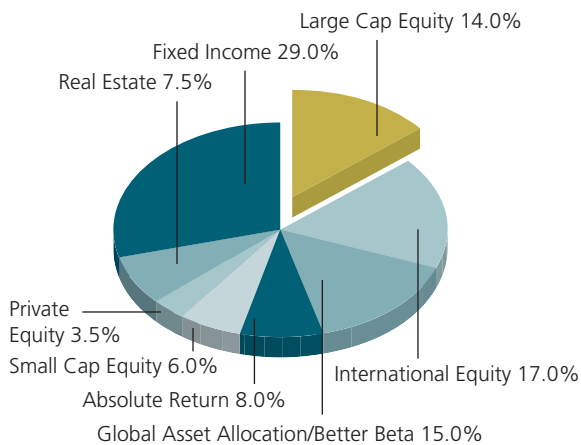
The asset structure shown below represents the Trustees' assessment of their optimal asset allocation as of June 30, 2017. This interim strategic allocation provides a reasonable expectation that the fund's investment objective can be achieved based on historic relationships of asset class performance.

The table below provides 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, 2017.

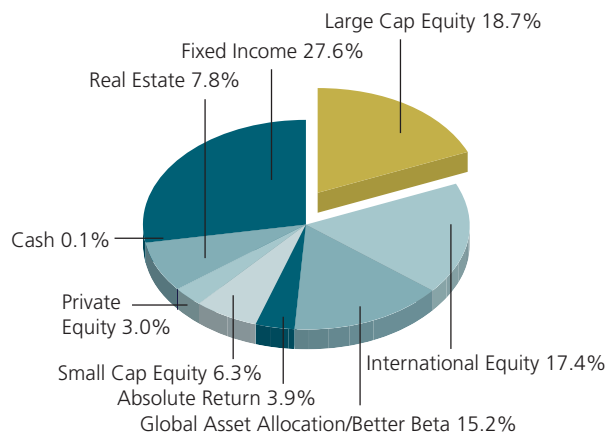
Actual Asset Allocation as of June 30, 2017

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.

INTERIM STRATEGIC TARGETS



ACTUAL ASSET ALLOCATION



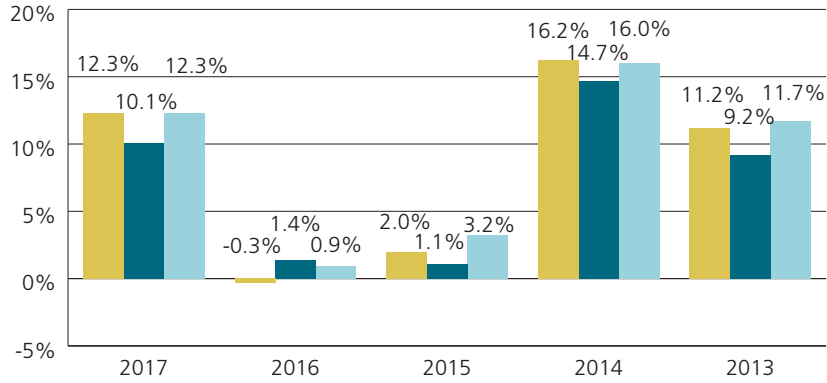
Security Class	Interim Strategic Targets as of June 30, 2017	Actual Asset Allocation as of June 30, 2017
Domestic Large Cap Equity	14.0 %	18.7 %
Domestic Small Cap Equity	6.0	6.3
International Equity	17.0	17.4
Real Estate	7.5	7.8
Fixed Income	29.0	27.6
Global Asset Allocation/Better Beta	15.0	15.2
Absolute Return	8.0	3.9
Private Equity	3.5	3.0
Cash	0.0	0.1
Total	100.0%	100.0%

INVESTMENT RESULTS

Fiscal Years Ending June 30

TOTAL FUND RETURNS

- ERFC
- Benchmark*
- Public Funds**



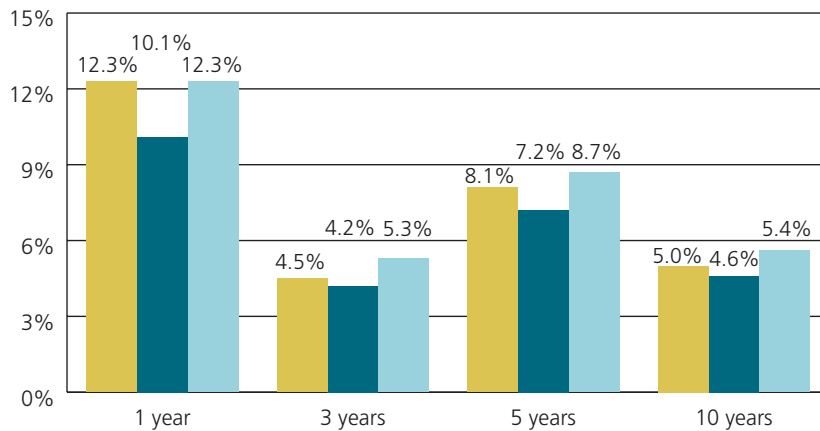
* Diversified benchmark is 14.0% Russell 1000, 6.0% Russell 2000, 14% MSCI ACWI Ex-US, 3.0% MSCI Emerging Markets, 3.75% FTSE EPRA/NAREIT, 3.75% NCREIF, 18.0% Bloomberg Barclays Aggregate Bond Index, 4.0% BBg Barc Credit, 4.0% BBg Barc Long Credit, 7.5% MSCI World Net, 7.5% CitiWorld Govt Bond, 8.0% HFRI FoF, 3.0% Cambridge PE, 3.0% GBI EM debt

** Investor Force Public Defined Benefit Plan Universe

For the Periods Ending June 30, 2017

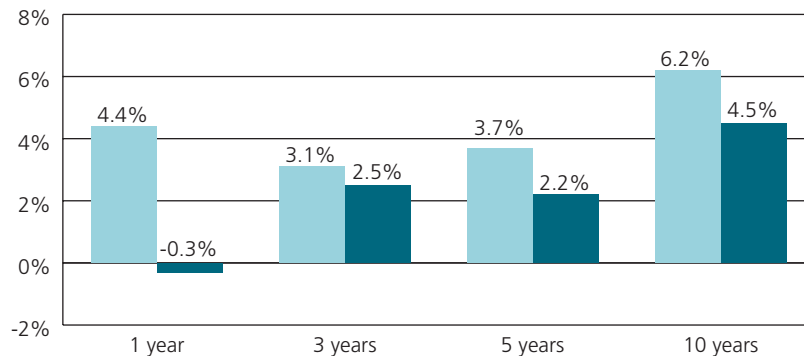
TOTAL FUND

- ERFC
- Benchmark*
- Public Funds**



DOMESTIC FIXED INCOME

- Fixed Income
- Benchmark:
Bloomberg
Barclays
Aggregate Bond



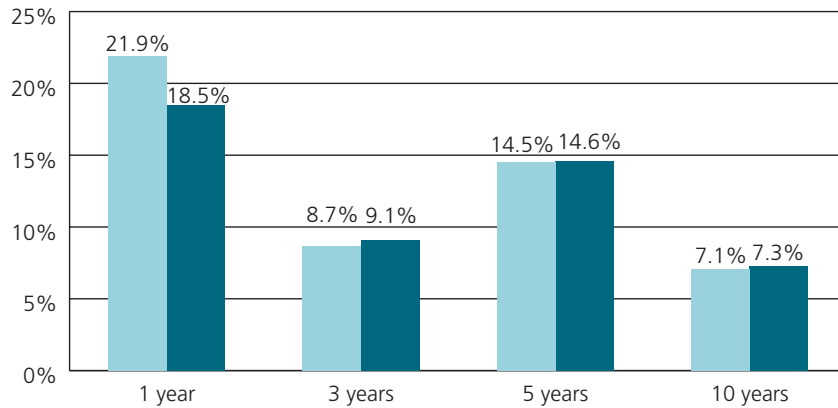
INVESTMENT

INVESTMENT RESULTS

(For the Periods Ending June 30, 2017)

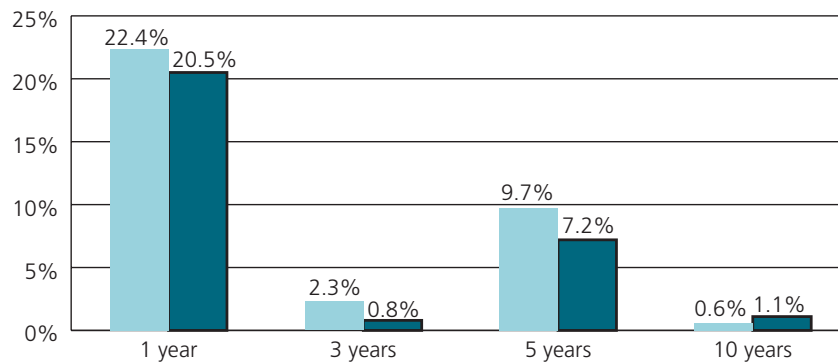
DOMESTIC EQUITY

- Domestic Equity
- Benchmark: Russell 3000 Index



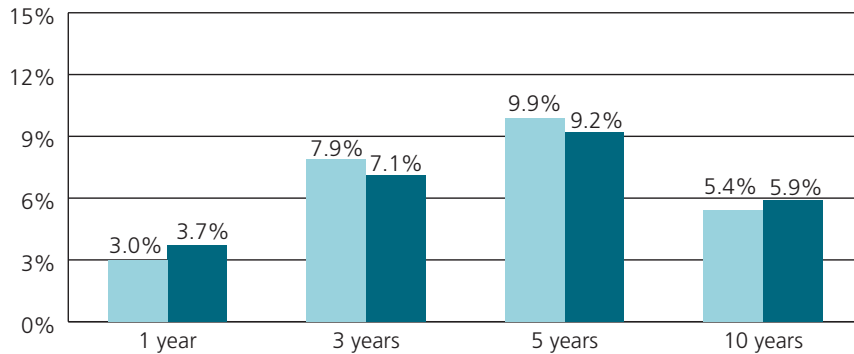
INTERNATIONAL EQUITY

- International Equity
- Benchmark: MSCI/ACWI Ex-USA Index



REAL ESTATE

- Real Estate
- Benchmark: 50% FTSE EPRA/NAREIT 50% NCREIF



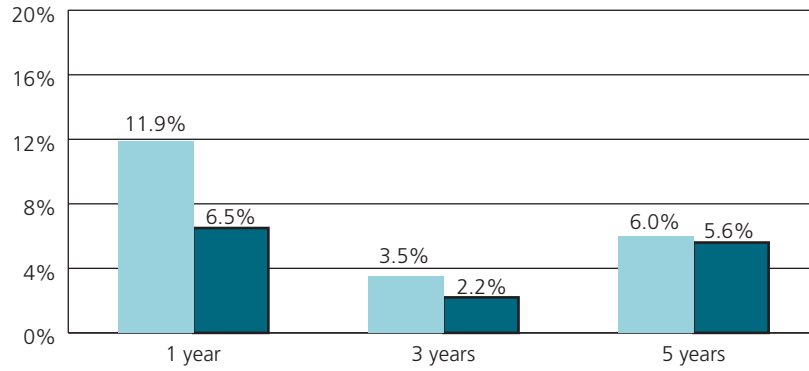
Note: All investment performance figures were calculated using a time-weighted rate of return based on market values.

INVESTMENT RESULTS

(For the Periods Ending June 30, 2017)

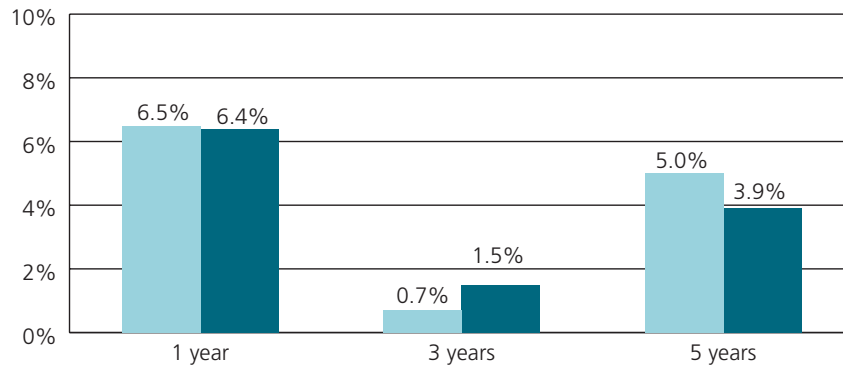
GLOBAL ASSET ALLOCATION

- GAA
- Benchmark:
50% MSCI
World / 50%
Citi World Govt
Bond Index



HEDGE FUND

- Hedge Fund of
Funds
- Benchmark:
HFRI Fund
of Funds
Composite
Index



INVESTMENT

SCHEDULES OF TEN LARGEST EQUITY & FIXED INCOME HOLDINGS

(As of June 30, 2017)

TEN LARGEST EQUITY HOLDINGS*

No. Shares	Description	Cost	Fair Value	% of Total Portfolio
6,330	AMAZON.COM INC	\$ 2,622,669	\$ 6,127,440	0.27%
39,170	FACEBOOK INC	3,321,707	5,913,886	0.26%
3,070	PRICELINE GROUP INC	3,814,618	5,742,496	0.25%
5,600	ALPHABET INC-CL C	3,202,760	5,088,888	0.22%
65,620	MICROSOFT CORP	3,388,559	4,523,186	0.20%
33,321	JOHNSON & JOHNSON	3,322,553	4,408,035	0.19%
50,422	EXXON MOBIL CORP	4,320,329	4,070,568	0.18%
1,943	SAMSUNG ELECTRONICS CO LTD	2,006,507	4,036,629	0.18%
42,450	VISA INC	2,703,171	3,980,961	0.17%
27,500	ALIBABA GROUP HOLDING LTD	2,764,500	3,874,750	0.17%
TOTAL		\$ 31,467,373	\$ 47,766,839	2.09%

TEN LARGEST FIXED INCOME HOLDINGS*

Par Value	Security	Coupon	Maturity	Cost	Fair Value	% of Total Portfolio
5,000,000	U S TREASURY NOTE	0.750%	09/30/2018	\$ 4,998,828	\$ 4,964,650	0.22%
5,505,000	INTER-AMERICAN DEVELOPMENT BAN	6.000%	12/15/2017	3,779,204	4,098,450	0.18%
4,000,000	U S TREASURY NOTE	0.625%	06/30/2018	3,993,594	3,974,520	0.17%
4,250,000	U S TREASURY BOND	2.250%	08/15/2046	4,031,855	3,741,658	0.16%
3,630,000	FORD MOTOR CREDIT CO LLC	4.389%	01/08/2026	3,630,000	3,739,082	0.16%
3,000,000	U S TREASURY NOTE	0.750%	10/31/2017	2,992,969	2,996,580	0.13%
2,400,000	BANK OF AMERICA CORP	6.110%	01/29/2037	2,064,106	2,937,480	0.13%
2,750,000	U S TREASURY NOTE	0.750%	04/30/2018	2,746,240	2,737,983	0.12%
3,355,000	NEW SOUTH WALES TREASURY CORP	6.000%	02/01/2018	3,785,333	2,636,919	0.11%
37,450,000	MEXICAN BONOS	8.000%	12/07/2023	3,347,568	2,211,981	0.10%
TOTAL				\$ 35,369,697	\$34,039,303	1.48%

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

SCHEDULE OF BROKERAGE COMMISSIONS

(Year Ended June 30, 2017)

Broker Name	Base Volume	Total Shares	Base Commission	Commission Percentage
MERRILL LYNCH PIERCE FENNER SMITH INC NY	\$ 60,761,129	1,748,410	\$ 30,724	0.02
GOLDMAN SACHS & CO, NY	42,324,246	1,583,130	32,924	0.02
INSTINET CORP, NEW YORK	41,841,655	1,299,698	7,091	0.01
CITIGROUP GBL MKTS INC, NEW YORK	40,893,663	1,171,242	18,017	0.02
CREDIT SUISSE, NEW YORK	35,589,514	3,287,089	20,275	0.01
MORGAN STANLEY & CO INC, NY	34,982,886	2,077,030	23,315	0.01
J.P. MORGAN CLEARING CORP, NEW YORK	32,462,078	768,313	11,943	0.02
DEUTSCHE BK SECS INC, NY	32,114,655	1,169,347	15,213	0.01
UBS WARBURG, LONDON	25,659,010	1,624,853	19,507	0.01
BERNSTEIN SANFORD C & CO, NEW YORK	23,496,144	771,630	7,832	0.01
SG AMERICAS SECURITIES LLC, NEW YORK	22,359,179	1,119,575	7,110	0.01
J P MORGAN SECS LTD, LONDON	17,516,118	2,535,118	13,262	0.01
INSTINET EUROPE LIMITED, LONDON	17,197,413	1,112,637	9,347	0.01
MERRILL LYNCH INTL LONDON EQUITIES	15,316,054	1,036,441	16,218	0.02
CREDIT SUISSE (EUROPE), LONDON	13,674,398	916,985	8,428	0.01
BARCLAYS CAPITAL INC./LE, NEW JERSEY	13,078,181	358,783	7,004	0.02
NATIONAL FINL SVCS CORP, NEW YORK	10,634,361	251,556	6,575	0.03
JEFFERIES & CO INC, NEW YORK	10,596,962	279,909	8,988	0.03
SOCIETE GENERALE LONDON BRANCH, LONDON	10,556,097	425,889	5,273	0.01
CITIGROUP GLOBAL MARKETS LTD, LONDON	10,494,909	958,456	8,213	0.01
CITIGROUP GBL MKTS/SALOMON, NEW YORK	10,399,223	5,194,179	5,936	0.00
RBC CAPITAL MARKETS LLC, NEW YORK	10,071,083	235,296	3,490	0.01
UBS SECURITIES LLC, STAMFORD	9,619,175	444,288	7,428	0.02
SG SEC (LONDON) LTD, LONDON	7,748,399	775,815	4,530	0.01
ITG INC, NEW YORK	7,641,099	244,226	5,249	0.02
STIFEL NICOLAUS	6,928,298	127,121	3,894	0.03
DAIWA SECS AMER INC, NEW YORK	6,800,363	272,100	5,394	0.02
SANFORD C BERNSTEIN & CO INC, LONDON	6,698,341	403,516	4,470	0.01
UBS WARBURG ASIA LTD, HONG KONG	6,577,492	804,539	4,857	0.01
PERSHING LLC, JERSEY CITY	5,873,210	167,464	4,961	0.03
LIQUIDNET INC, NEW YORK	5,715,012	163,243	3,653	0.02
RAYMOND JAMES & ASSOC INC	5,436,034	132,318	4,487	0.03
INSTINET CORP, NY	5,350,828	138,820	1,296	0.01
J P MORGAN SECURITIES INC, BROOKLYN	5,309,206	171,806	2,435	0.01
INVESTMENT TECHNOLOGY GROUP LTD,DUBLIN	5,001,426	244,451	2,300	0.01
GOLDMAN SACHS INTL, LONDON	4,800,231	357,999	3,452	0.01
FIDELITY CAP MKTS, BOSTON	4,798,133	158,942	1,987	0.01
STATE STREET GLOBAL MARKETS LLC, BOSTON	4,793,387	150,212	2,998	0.02
DAIWA SECS LTD, HONG KONG	4,577,139	2,291,711	1,484	0.00
WELLS FARGO SECURITIES LLC, CHARLOTTE	4,013,575	83,918	2,710	0.03
SG SECURITIES, HONG KONG	3,880,477	1,249,758	2,893	0.00
UBS SECURITIES CANADA, TORONTO	3,826,112	265,724	1,324	0.00
INSTINET AUSTRALIA CLEARING SERV, SYDNEY	3,586,825	322,628	1,458	0.00
MERRILL LYNCH & CO INC ATLAS GLOBAL, NY	3,549,579	400,001	1,832	0.00
BARCLAYS CAPITAL LE, JERSEY CITY	3,454,078	111,928	1,595	0.01
OTHER BROKERS	112,100,657	12,683,068	96,220	0.01
	\$ 770,098,034	52,091,162	\$ 459,592	

INVESTMENT SUMMARY

	As of June 30, 2017		As of June 30, 2016	
	Fair Value	% Fair Value	Fair Value	% Fair Value
Fixed Income				
U.S. Government obligations	\$ 18,415,390	0.8%	\$ 8,772,468	0.4%
Mortgage-backed securities	1,990,909	0.1%	2,307,583	0.1%
Domestic corporate bonds	63,390,793	2.8%	75,359,808	3.6%
Convertible bonds	8,218,114	0.4%	13,059,542	0.6%
International bonds	28,471,264	1.2%	31,612,862	1.5%
Preferred stocks	5,232,652	0.2%	3,342,162	0.2%
Index / Commingled fund	493,892,323	21.4%	476,848,036	22.7%
Total fixed income	619,611,445	26.9%	611,302,461	29.1%
Domestic Equity:				
Basic industry	52,723,142	2.3%	41,815,549	2.0%
Consumer and services	136,116,165	5.9%	124,670,911	5.9%
Financial and utility	96,996,403	4.2%	77,304,926	3.7%
Technological	109,837,658	4.8%	87,784,960	4.2%
Index / Commingled fund	188,864,262	8.2%	105,755,311	5.0%
Total domestic equity	584,537,630	25.4%	437,331,657	20.8%
International Equity				
Basic industry	66,825,748	2.9%	50,109,757	2.4%
Consumer and services	98,220,368	4.3%	89,302,869	4.2%
Financial and utility	71,059,921	3.1%	53,454,522	2.5%
Technological	49,341,191	2.1%	39,086,825	1.9%
Index / Commingled fund	91,905,819	4.0%	72,091,136	3.4%
Total international equity	377,353,047	16.4%	304,045,109	14.4%
Real Estate				
Commercial	67,723,558	2.9%	63,806,781	3.0%
Commingled	112,513,587	4.9%	118,301,244	5.6%
Total real estate	180,237,145	7.8%	182,108,025	8.6%
Alternative investments				
Better beta	112,371,447	4.9%	114,838,276	5.5%
Global asset allocation	236,687,821	10.3%	207,360,520	9.9%
Hedge fund of funds	90,512,487	3.9%	165,183,995	7.8%
Limited partnerships	68,818,151	3.0%	61,386,165	2.9%
Total alternative investments	508,389,906	22.1%	548,768,956	26.1%
Subtotal investments at fair value	2,270,129,173	98.6%	2,083,556,208	99.0%
Short-term Investments				
Money Market	33,852,955	1.4%	20,926,504	1.0%
Total short-term investments	33,852,955	1.4%	20,926,504	1.0%
Total	\$ 2,303,982,128	100.0%	\$ 2,104,482,712	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, 2017)

Investment Category	Assets Under Management	Expense
Better beta	\$ 112,371,447	\$ 538,127
Domestic equity managers	571,788,565	1,609,545
Fixed income managers	614,632,604	2,133,973
Global asset allocation managers	236,687,821	1,798,178
Hedge fund of funds	90,512,487	1,563,932
International equity managers	395,130,952	2,060,084
Private equity	68,818,151	1,267,726
Real estate managers	180,237,145	1,662,413
Total	\$ 2,270,179,172	\$ 12,633,978

Note: Excludes cash and cash equivalents

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ACTUARIAL UNAUDITED



“WHEN STUDENTS
FEEL SOCIALIZED
AND ACCEPTED,
THEY PERFORM
BETTER
ACADEMICALLY.”

ERIC JENSEN

The **Office of Student Testing** coordinates the distribution, administration and analysis of all FCPS student assessments. The office oversees management of testing materials, staff training for proper test administration and the interpretation of data that provides insight into progress toward student success.

The **Office of Professional Learning and Family Engagement** cultivates a community of learners where families, staff and stakeholders collaborate to ensure students are inspired, engaged and thriving. The office influences leadership and professional development, instructional coaching, parent and community liaisons, and Title I initiatives.

ACTUARY'S CERTIFICATION LETTER



800.521.0498 | P: 248.799.9000 | F: 248.799.9020 | www.grsconsulting.com

November 3, 2017

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

Dear Board Members:

The basic financial objective of ERFC is to establish and receive contributions which,

- when expressed in terms of percents of active member payroll will remain approximately level from generation to generation, and
- when combined with present assets and future investment return will be sufficient to meet the financial obligations of ERFC to present and future retirees and beneficiaries.

The financial objective is addressed within the annual actuarial valuation. The valuation process develops contribution rates that are sufficient to fund the plan's current cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered) as well as to fund unfunded actuarial accrued liabilities as a level percent of active member payroll over a finite period. The most recent valuation was completed based upon population data, asset data, and plan provisions as of December 31, 2016; all calculations were made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

In addition to the funding valuation report, a separate report is issued to provide financial reporting information for ERFC in accordance with Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68. Financial reporting information has been produced based upon a measurement date of June 30, 2017 for GASB Statement Nos. 67 and 68.

The plan's administrative staff provides the actuary with data for the actuarial valuation and for the GASB financial reporting information. The actuary relies on the data after reviewing it for internal and year-to-year consistency. The actuary summarizes and tabulates population data in order to analyze longer term trends. The plan's external auditor audits the actuarial data annually.

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

ACTUARY'S CERTIFICATION LETTER

Board of Trustees
November 3, 2017
Page 2

The actuary prepared information that was used for the following schedules for the 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, 2016
 - Historical Information for All Members (last 8 years)
 - All Active Members in Valuation on December 31, 2016 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
- Schedule of Changes in Net Pension Liability and Related Ratios

Assets are valued on a fair value-related 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 on fair value. For determining the Net Pension Liability (NPL) 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, 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, 2016 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.

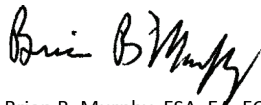


ACTUARY'S CERTIFICATION LETTER

Board of Trustees
November 3, 2017
Page 3

Based upon the results of the December 31, 2016 valuation, we are pleased to report to the Board that the Educational Employees' Supplementary Retirement System of Fairfax County (ERFC) is meeting its basic financial objective and continues to operate in accordance with actuarial principles of level percent-of-payroll financing. Continued receipt of contributions at actuarially determined levels remains extremely important. In order to obtain a more complete understanding of the condition of the Retirement System, it is important to obtain and read a copy of the full actuarial report.

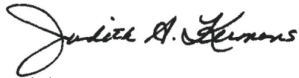
Respectfully submitted,



Brian B. Murphy, FSA, EA, FCA, MAAA, PhD



Heidi G. Barry, ASA, FCA, MAAA



Judith A. Kermans, EA, FCA, MAAA

BBM/JAK:clh:sc



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*. A one time adjustment toward market was made in connection with the 1990–93 experience study and an additional one-time adjustment set the funding value equal to the market value as of December 31, 2004. Further, an 85–115% market value corridor was added in the December 31, 2005 valuation. Additionally, the market value corridor on assets was changed from 75% to 125% in the December 31, 2008 valuation.

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

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

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

TABLE A: Sample Pay Increase Assumptions for an Individual Member

Service Index	PAY INCREASE ASSUMPTION		
	Merit & Seniority	Base (Economy)	Increase Next Year
1	5.80%	3.25%	9.05%
2	4.00%	3.25%	7.25%
3	3.30%	3.25%	6.55%
4	3.10%	3.25%	6.35%
5	2.50%	3.25%	5.75%
6	2.40%	3.25%	5.65%
7	2.30%	3.25%	5.55%
8	1.70%	3.25%	4.95%
9	1.60%	3.25%	4.85%
10-14	1.40%	3.25%	4.65%
15	0.90%	3.25%	4.15%
16	0.80%	3.25%	4.05%
17	0.70%	3.25%	3.95%
18-19	0.50%	3.25%	3.75%
20	0.40%	3.25%	3.65%
21	0.30%	3.25%	3.55%
22-24	0.20%	3.25%	3.45%
25	0.00%	3.25%	3.25%

TABLE B: Sample Rates of Separation from Active Employment before Retirement

Sample Ages	PERCENT OF ACTIVE MEMBERS SEPARATING WITHIN NEXT YEAR							
	DEATH				DISABILITY			
	Ordinary		Duty		Ordinary		Duty	
Men	Women	Men	Women	Men	Women	Men	Women	
25	0.0232%	0.0072%	0.0023%	0.0007%	0.0146%	0.0082%	0.0036%	0.0020%
30	0.0219	0.0093	0.0022	0.0009	0.0158	0.0122	0.0040	0.0031
35	0.0255	0.0122	0.0026	0.0011	0.0234	0.0214	0.0059	0.0054
40	0.0303	0.0165	0.0030	0.0015	0.0339	0.0308	0.0085	0.0077
45	0.0465	0.0272	0.0046	0.0025	0.0520	0.0456	0.0130	0.0114
50	0.0805	0.0461	0.0081	0.0043	0.0842	0.0726	0.0210	0.0181
55	0.1353	0.0710	0.0135	0.0066	0.1469	0.1228	0.0367	0.0307
60	0.2303	0.1027	0.0230	0.0096	0.2447	0.1770	0.0612	0.0443

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

TABLE C: Probability of Retirement for Members Eligible to Retire

<i>ERFC (Hired before 7/1/2001)</i>			<i>ERFC 2001 (Hired on or after 7/1/2001)</i>		
TYPE OF RETIREMENT			TYPE OF RETIREMENT		
Ages	Service	Reduced Service	Age Based	Service	Service Based
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
57	25	4	12.5	32	12.5
58	25	4	12.5	33	12.5
59	25	4	12.5	34	12.5
60	25	7	10.0	35	10.0
61	30	8	10.0	36	10.0
62	30	13	10.0	37	10.0
63	30	13	10.0	38	25.0
64	30	13	20.0	39	40.0
65	30		25.0	40 & up	100
66	30		30.0		
67	25		25.0		
68	25		15.0		
69	20		15.0		
70	20		15.0		
71	20		15.0		
72	20		15.0		
73	30		15.0		
74	30		15.0		
75+	100		100		

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

TABLE D: Single Life Retirement Values

MORTALITY		
Future Life Expectancy (Years)		
Sample Ages in 2016	Male	Female
55	30.67	34.35
60	26.07	29.50
65	21.69	24.82
70	17.54	20.34
75	13.67	16.13
80	10.21	12.32

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.

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

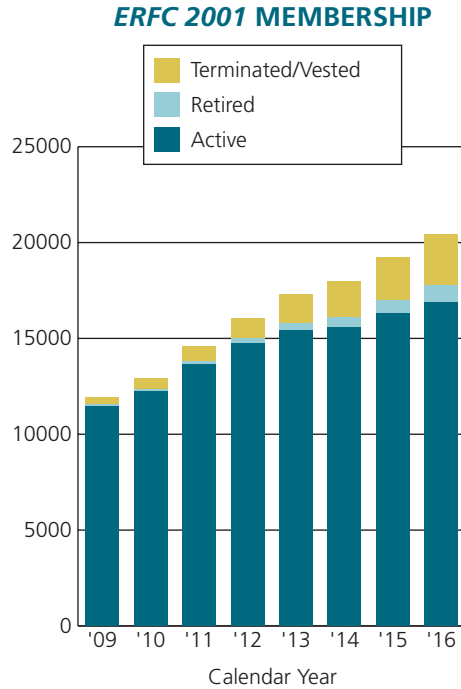
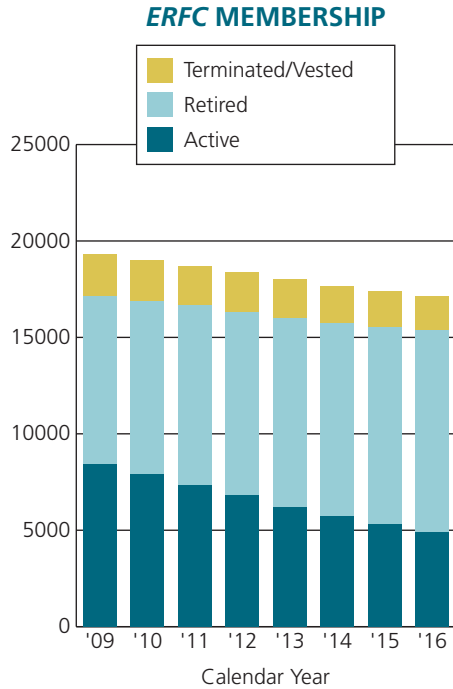
TABLE E: Rates of Forfeiture Following Vested Separation

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.

SERVICE	% OF ACTIVE PARTICIPANTS WITHDRAWING	
	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%

SUMMARY OF MEMBER DATA

(Last Eight Years)



		<i>ERFC</i>			<i>ERFC 2001</i>			
	Year	Active	Retired	Terminated/ Vested	Active	Retired	Terminated/ Vested	Total
Calendar Year	2009	8,417	8,707	2,177	11,474	65	390	31,230
(As of December 31)	2010	7,900	8,968	2,137	12,241	113	582	31,941
	2011	7,353	9,293	2,063	13,623	174	798	33,304
	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

SUMMARY OF MEMBER DATA

(As of December 31, 2016)

ACTIVE ERFC MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE

Age Group	YEARS OF SERVICE TO VALUATION DATE							TOTALS		Average
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	No.	Salary	
35-39	-	7	15	85				107	\$ 8,554,876	\$ 79,952
40-44	4	46	68	437	46			601	52,413,218	87,210
45-49	5	35	83	507	358	54	1	1,043	95,233,001	91,307
50-54	8	31	54	350	282	204	36	965	85,566,909	88,670
55-59	2	10	44	395	247	155	71	924	78,575,804	85,039
60		2	8	68	46	36	9	169	13,944,384	82,511
61			4	79	48	27	7	165	13,216,516	80,100
62		3	6	87	45	30	12	183	15,254,675	83,359
63			4	70	47	18	7	146	12,007,214	82,241
64			2	76	48	25	7	158	12,569,379	79,553
65		1	2	62	35	21	13	134	11,000,504	82,093
66			1	30	24	11	9	75	6,139,321	81,858
67			1	29	16	8	5	59	4,914,243	83,292
68			2	16	13	6	7	44	3,393,121	77,116
69			2	15	4	3	4	28	2,234,820	79,815
70	1		2	11	9	5	1	29	2,170,611	74,849
71				3	8	3		14	1,343,402	95,957
72				5	3	3		11	908,399	82,582
73				3	1	2	2	8	629,577	78,697
74				5	4	1	1	11	945,021	85,911
75 & over				3	4	2	9	18	1,311,812	72,878
Total	20	135	298	2,336	1,288	614	201	4,892	\$422,326,807	\$82,693

ACTUARIAL

SUMMARY OF MEMBER DATA

(As of December 31, 2016)

ACTIVE ERFC 2001 MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE

Age Group	YEARS OF SERVICE TO VALUATION DATE				TOTALS		Average
	0-4	5-9	10-14	15 & up	No.	Salary	
20-24	519	1			520	\$ 23,032,229	\$ 44,293
25-29	2,490	318			2,808	143,994,772	51,280
30-34	1,342	1,252	204		2,798	162,048,668	57,916
35-39	853	726	872	74	2,525	166,200,373	65,822
40-44	749	413	530	110	1,802	120,167,618	66,686
45-49	789	512	489	86	1,876	119,869,915	63,897
50-54	708	534	490	73	1,805	108,119,449	59,900
55-59	383	454	570	96	1,503	93,114,673	61,953
60	53	70	78	24	225	14,680,601	65,247
61	36	47	90	14	187	11,143,759	59,592
62	37	42	79	15	173	11,093,358	64,123
63	28	42	81	22	173	11,468,027	66,289
64	26	26	60	6	118	7,604,682	64,446
65	14	25	49	12	100	6,682,368	66,824
66	15	15	35	8	73	4,384,771	60,065
67	11	17	23	4	55	3,418,720	62,159
68	3	11	25	2	41	2,378,640	58,016
69	6	9	10	3	28	1,694,674	60,524
70	4	1	11	1	17	1,147,615	67,507
71	3	1	2		6	363,458	60,576
72	2	2	7		11	596,541	54,231
73			3	2	5	411,132	82,226
74	1		1		2	100,154	50,077
75 & over		1	4		5	387,426	77,485
Total	8,072	4,519	3,713	552	16,856	\$1,014,103,623	\$60,163

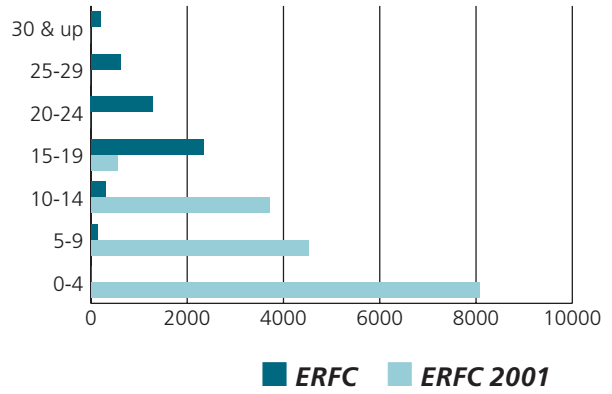
SUMMARY OF MEMBER DATA

(As of December 31, 2016)

ACTIVE MEMBER YEARS OF SERVICE

Average Service = 9.2 years

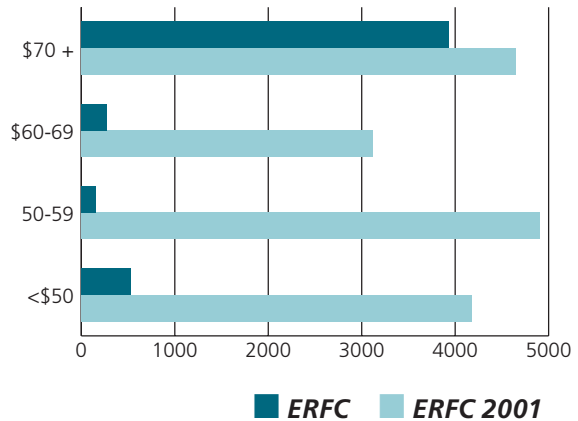
	0-4	5-9	10-14	15-19	20-24	25-29	30 & up
<i>ERFC</i>	20	135	298	2,336	1,288	614	201
<i>ERFC 2001</i>	8,072	4,519	3,713	552	-	-	-



ACTIVE MEMBER SALARIES (\$ in thousands)

Average Annual Pay = \$66,056

	< \$ 50	\$ 50-59	\$ 60-69	\$ 70+
<i>ERFC</i>	526	160	272	3,934
<i>ERFC 2001</i>	4,180	4,907	3,120	4,649

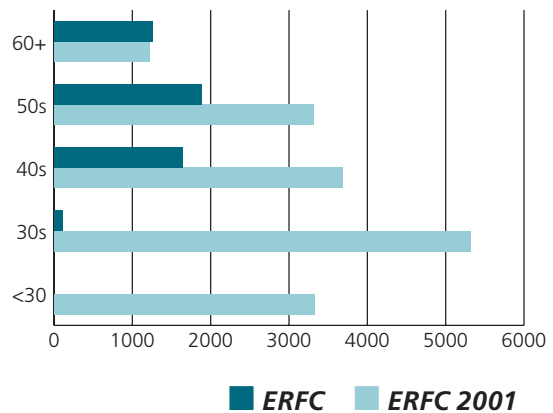


ACTIVE MEMBER AGES

Average Age = 43.8 years

Total Active Members = 21,748

	<30	30's	40's	50's	60+
<i>ERFC</i>	-	107	1,644	1,889	1,252
<i>ERFC 2001</i>	3,328	5,323	3,678	3,308	1,219



ACTUARIAL

SUMMARY OF MEMBER DATA

(Last Eight Years)

ACTIVE MEMBER VALUATION DATA

Valuation Date	Annual Number	Annual Payroll	Annual Average Pay	% Increase in Avg. Annual 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

RETIREES AND BENEFICIARIES ADDED AND REMOVED

ADDED TO PAYROLL			REMOVED FROM PAYROLL		PAYROLL AT END OF YEAR			
Year	Number	Annualized Monthly Benefit	Number	Annualized Monthly Benefit	Number	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

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)					
6/30/1997	\$ 144,063	\$ 464,345	\$ 606,959	\$1,045,412	100%	100%	72%
#6/30/1998	149,220	490,261	638,891	1,194,556	100	100	87
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

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

ANALYSIS OF FINANCIAL EXPERIENCE

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

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

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

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

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

EXPERIENCE GAINS AND LOSSES BY RISK AREA

(Dollars in Millions)

Experience Period	ECONOMIC RISK AREA			DEMOGRAPHIC RISK AREA			TOTAL GAIN (LOSS)	
	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								
1996-97	\$ 9.9	\$ 53.5	\$ 2.9	\$ (1.7)	\$ (4.5)	\$ (8.7)	\$ 51.4	4.5%
#1997-98	(2.6)	81.1	5.9	(0.5)	6.4	(13.9)	76.4	6.3
*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	<i>Due to transition to calendar year valuations, a gain/loss analysis was not conducted for this valuation period.</i>							
#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)%

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, multiplied by years of creditable Virginia service, and further multiplied by a certain percent based upon the number of months that retirement occurs before reaching the earlier of the above two conditions; such percent is half of one percent for each of the first 60 such months and 4/10 of one percent for each of the next 60 such months, if any.

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

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

SUMMARY OF BENEFIT PROVISIONS

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

Final Average Compensation (FAC):

A member's final average compensation is the average of the 3 highest consecutive years of salary during eligible employment.

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

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

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

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

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

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

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

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

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

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

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

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

Member Contributions: Members contribute 3 percent of their salaries. Interest credits of 5 percent are added annually through June 30, 2017, and 4 percent annually thereafter. If

a member leaves covered employment before becoming eligible to retire, accumulated contributions are returned upon request. Members who receive a refund of contributions and are later rehired become members of ERFC 2001 Tier 2.

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

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

Optional Forms of Payment:

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

SUMMARY OF BENEFIT PROVISIONS

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

Final Average Compensation (FAC):

A member's final average compensation is the average of the 3 highest consecutive years of salary during eligible employment.

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

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

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

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

to receive benefits before age 60 if benefits are further reduced as follows:

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

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

The amount is equal to 0.8 percent of FAC at retirement multiplied by years of credited service. If necessary, the pension will be increased to make the reserve value of the pension equal to

Before July 1, 2017, continued on next page

the member's accumulated contributions as of the effective retirement date.

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

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

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

SUMMARY OF BENEFIT PROVISIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

- Option A — 100 percent joint and survivor benefit. Benefit is 85 percent of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 94 percent of the straight life amount.
- Option B — 50 percent joint and survivor benefit. Benefit is 91 percent of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 97 percent of the straight life amount.
- Option C — 10 years certain and life. Benefit is 96 percent of the straight life amount.

ERFC CONTRIBUTION RATES

(Last 20 years)

SUPPORT EMPLOYEES				INSTRUCTIONAL EMPLOYEES		
Fiscal Year	Employee	Employer	Total	Employee	Employer	Total
1998	2.00%	5.58%	7.58%	2.00%	6.03%	8.03%
1999	2.00	5.58	7.58	2.00	6.03	8.03
<i>ERFC began using composite rates effective July 1, 1999</i>						
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			

SUMMARY OF PLAN CHANGES

There were no significant plan changes during the valuation period ending December 31, 2016.

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STATISTICAL UNAUDITED



“ I NEVER TEACH
MY PUPILS, I ONLY
PROVIDE THE CONDITIONS
IN WHICH THEY CAN LEARN.
ALBERT EINSTEIN



The Department of Facilities and Transportation Services provides the clean, safe, efficient facilities, transportation and properties that comprise the physical aspects of FCPS. The department oversees facility use and management for the school system and surrounding communities, design, construction and renovation of schools and facilities, energy and recycling programs, building safety and security, and transportation management of all school-owned vehicles.

NET POSITION

Last 10 Fiscal Years

FISCAL YEARS	NET POSITION
2008	\$ 1,858,571,973
2009	1,441,434,430
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

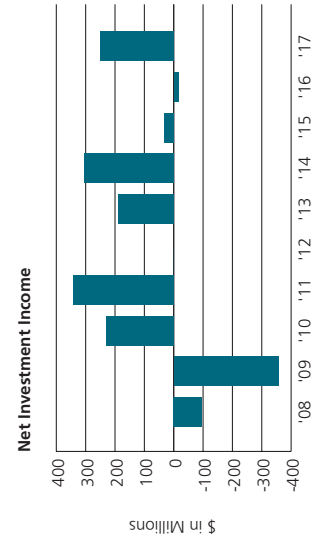


CHANGES IN NET POSITION

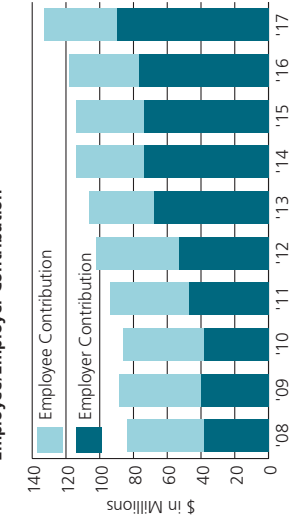
Last 10 Fiscal Years

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
ADDITIONS										
Employee contributions	\$ 46,145,803	\$ 47,996,408	\$ 47,918,341	\$ 47,167,129	\$ 49,142,379	\$ 38,428,567	\$ 40,018,590	\$ 39,982,963	\$ 41,583,642	\$ 43,062,632
Employer contributions	38,334,140	40,012,480	37,868,623	47,118,111	52,934,245	67,734,634	74,174,082	74,324,396	76,599,695	80,094,538
Investment income (net of expenses)	(96,855,060)	(357,672,266)	231,574,404	341,669,367	1,635,435	190,947,851	304,640,803	32,083,908	(15,766,967)	250,981,777
Gain/loss from sale of capital assets	—	(5,494)	—	(1,505)	—	—	—	—	—	—
Total additions to plan net position	(12,377,117)	(269,668,872)	317,361,368	435,953,104	103,712,059	297,110,852	418,833,475	146,391,267	102,216,370	374,138,947
DEDUCTIONS										
Benefit payments	135,927,308	139,594,144	143,128,569	149,046,042	155,041,762	160,098,128	161,276,831	162,145,265	165,721,790	168,783,718
Contribution refunds	4,229,850	3,975,907	3,339,910	4,258,033	4,295,171	4,419,806	5,772,959	5,697,311	4,626,057	4,601,865
Administrative expenses	4,631,844	3,898,620	4,663,896	3,344,333	3,574,923	3,588,414	3,629,320	3,751,825	4,004,882	4,059,408
Total deductions to plan net position	144,789,002	147,468,671	151,132,375	156,648,408	162,911,856	168,106,348	170,679,110	171,594,401	174,352,729	177,444,991
Change in net position net of expenses	\$(157,166,119)	\$(417,137,543)	\$ 166,228,993	\$ 279,304,696	\$ (59,199,797)	\$ 129,004,504	\$ 248,154,365	\$ (25,203,134)	\$ (72,136,359)	\$ 196,693,956

ADDITIONS BY SOURCE



DEDUCTIONS BY TYPE



ASSETS AND LIABILITIES COMPARATIVE STATEMENT

Last 20 Years—Dollars in Thousands

Valuation Date	Active Member Payroll	COMPUTED LIABILITIES			Valuation Assets	[Excess of Assets] Unfunded Accrued Liabilities	Funded Percent
		Retired	Members	Total			
6/30/1997	\$ 553,709	\$ 464,345	\$ 751,022	\$ 1,215,367	\$ 1,045,412	\$ 169,955	86.0 %
# 6/30/1998	582,755	490,261	788,111	1,278,372	1,194,556	83,816	93.4
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

@ 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

Calendar Years	SERVICE BENEFITS		DEATH BENEFITS		DISABILITY BENEFITS				Total			
	Normal Number	Amount	Early Number	Amount	Duty/Non-Duty Number	Amount	Duty Number	Amount	Non-Duty Number	Amount	Participants	Benefits
2008	4,476	\$94,522,827	3,760	\$37,401,953	124	\$1,059,054	25	\$319,262	210	\$1,043,164	8,595	\$134,346,260
2009	4,615	96,983,027	3,791	38,266,346	134	1,105,438	24	294,234	208	1,043,259	8,772	137,692,304
Fiscal Years												
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

BENEFIT REFUNDS BY TYPE

Last 10 Years

Fiscal Year	SEPARATION		DEATHS		TOTAL	
	No.	Amount	No.	Amount	No.	Amount
2008	857	\$ 4,064,627	24	\$ 165,223	881	\$ 4,229,850
2009	722	3,644,789	25	331,118	747	3,975,907
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

RETIRED MEMBERS BY TYPE OF BENEFIT

(As of December 31, 2016)

Amount of Monthly Benefit	Number of Retired Members	TYPE OF RETIREMENT*					Basic Benefit	OPTION SELECTED**				
		1	2	3	4	5		1	2	3	4	5
\$ 1-\$ 250	1,925	566	1,296	31	27	5	1,435	5	52	58	265	
251-500	2,089	981	977	22	103	6	1,571	6	82	46	210	
501-750	1,060	551	474	6	26	3	772	9	31	23	143	
751-1,000	865	520	332	5	8	0	549	11	47	12	211	
1,001-1,250	1,069	737	320	5	7	0	719	20	45	8	237	
1,251-1,500	860	646	206	3	5	0	605	9	43	9	152	
1,501-1,750	626	504	120	1	1	0	415	6	40	8	136	
1,751-2,000	626	548	76	2	0	0	375	8	40	4	167	
Over 2,000	2,247	1,827	414	3	0	3	1,355	14	169	19	566	
Total	11,367	6,880	4,215	78	177	17	7,796	88	549	167	2,087	

*** 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 1/1/12 to 12/31/12						
Avg Monthly Benefit	\$ 272.98	\$ 434.75	\$ 678.98	\$ 1,088.46	\$ 2,239.49	\$ 2,667.58
Avg Final Average Salary	\$ 4,962.62	\$ 5,182.69	\$ 5,965.10	\$ 6,278.19	\$ 7,040.31	\$ 8,026.53
No. of Retired Members	87	121	99	83	159	79
Period 1/1/13 to 12/31/13						
Avg Monthly Benefit	\$ 280.13	\$ 427.87	\$ 650.93	\$ 935.23	\$ 2,134.83	\$ 2,701.66
Avg Final Average Salary	\$ 5,190.10	\$ 5,292.03	\$ 6,089.14	\$ 6,206.50	\$ 6,784.33	\$ 7,862.51
No. of Retired Members	100	115	125	96	136	81
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

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	2007	\$ 1,765	\$ 822	\$475
	2008	1,760	829	469
	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

RETIREES AND BENEFICIARIES CURRENT ANNUAL BENEFITS TABULATED BY ATTAINED AGES

(As of December 31, 2016)

Attained Ages	TOTAL	
	No.	Annual Amount
Under 40	2	\$ 6,897
40-44	3	8,973
45	3	22,896
46	3	46,525
47	3	15,141
48	3	30,411
49	4	26,930
50	3	63,225
51	8	193,030
52	8	221,491
53	20	441,920
54	23	583,752
55	63	1,253,095
56	76	1,668,070
57	104	2,592,906
58	146	3,664,034
59	186	4,719,925
60	262	5,542,723
61	322	6,763,530
62	398	8,250,193
63	410	8,670,420
64	482	10,359,631
65	566	11,576,625
66	599	6,239,447
67	634	6,408,057
68	669	6,949,806
69	736	7,876,968
70-74	2,523	28,513,519
75-79	1,495	18,808,220
80 & Up	1,613	21,670,870
Grand Total	11,367	\$ 163,189,230

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

INACTIVE VESTED MEMBERS DEFERRED BENEFITS BY ATTAINED AGES

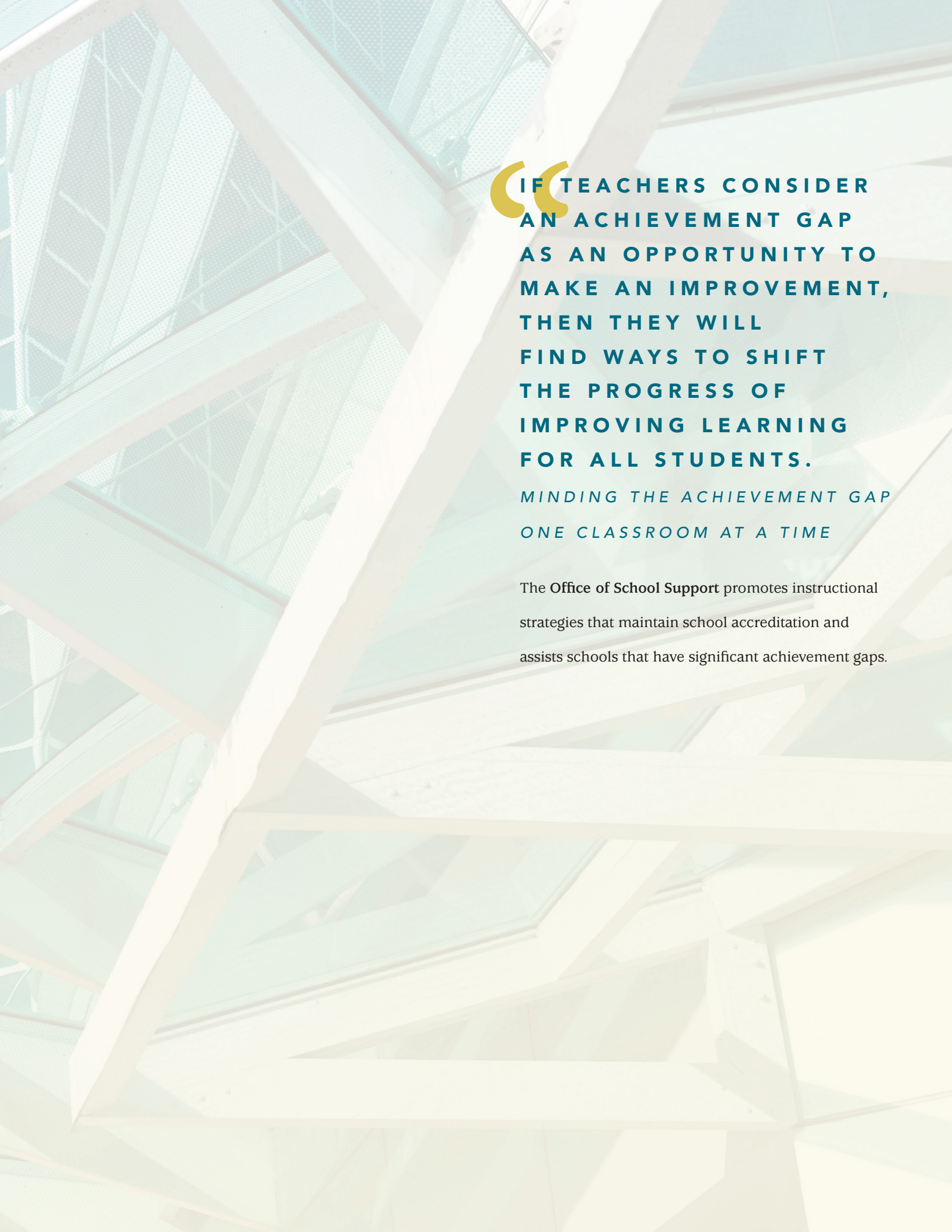
(As of December 31, 2016)

Attained Ages	TOTAL	
	No.	Annual Amount
26	1	\$ 1,896
27	10	26,612
28	42	119,400
29	55	167,254
30	80	266,830
31	89	305,852
32	126	475,861
33	164	671,611
34	167	699,360
35	198	844,172
36	196	841,993
37	202	860,226
38	205	810,977
39	181	647,592
40	177	611,136
41	152	497,781
42	157	414,687
43	158	485,427
44	146	413,962
45	176	532,466
46	159	454,169
47	148	458,944
48	130	421,949
49	129	411,036
50	114	359,213
51	110	330,501
52	112	357,958
53	110	416,136
54	111	387,931
55	89	315,988
56	88	317,481
57	78	284,499
58	73	305,118
59	84	342,694
60	40	180,224
61	32	145,598
62	28	190,060
63	34	221,755
64	29	118,286
65 & Over	53	129,756
Grand Total	4,433	\$ 15,844,391

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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**IF TEACHERS CONSIDER
AN ACHIEVEMENT GAP
AS AN OPPORTUNITY TO
MAKE AN IMPROVEMENT,
THEN THEY WILL
FIND WAYS TO SHIFT
THE PROGRESS OF
IMPROVING LEARNING
FOR ALL STUDENTS.**

*MINDING THE ACHIEVEMENT GAP
ONE CLASSROOM AT A TIME*

The Office of School Support promotes instructional strategies that maintain school accreditation and assists schools that have significant achievement gaps.

THE EDUCATIONAL EMPLOYEES' SUPPLEMENTARY RETIREMENT SYSTEM OF FAIRFAX COUNTY

8001 FORBES PLACE | SUITE 300 | SPRINGFIELD, VA 22151-2205



ERFC would like to thank the staff at Willow Oaks Administrative Center for allowing us the opportunity to feature its departments and services in our 2017 Comprehensive Annual Financial Report. The children are who we all have in common and ERFC is here for those who serve to better their futures.