



Actuarial Valuation Report

Educational Employees' Supplementary Retirement System of
Fairfax County

For the Fiscal Year Ending June 30, 2023

Based on a June 30, 2023 Measurement Date

Introduction

This report documents the results of the actuarial valuation for the fiscal year ending June 30, 2023 for the Educational Employees' Supplementary Retirement System of Fairfax County ("ERFC"). The plan is a single-employer plan and does not issue a separate financial statement. As a result, all reporting requirements are included in the employer's financial statement. These results are based on a Measurement Date of June 30, 2023. The information provided in this report is intended strictly for documenting information relating to ERFC and plan disclosure and reporting requirements.

Determinations for purposes other than the financial accounting requirements may be significantly different from the results in this report. Thus, the use of this report for purposes other than those expressed here may not be appropriate.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. In addition, the valuation results are based on our understanding of the financial accounting and reporting requirements under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 68 (GASB 68) including any guidance or interpretations provided by ERFC and/or its audit partners prior to the issuance of this report. The information in this report is not intended to supersede or supplant the advice and interpretations of ERFC's auditors. Additional disclosures have been included as per GASB 67 requirements.

Future actuarial measurements may differ significantly from the current measurements presented in this report due (but not limited to) to such factors as the following:

- Plan experience differing from that anticipated by the economic or demographic assumptions;
- Changes in actuarial methods or in economic or demographic assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- Changes in plan provisions or applicable law.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

A valuation model was used to develop the liabilities for the June 30, 2023 valuation. The valuation model relies on ProVal software, which was developed by Winklevoss Technologies, LLC. Experts within Aon selected this software and determined it is appropriate for performing valuations. We coded and reviewed the software for the provisions, assumptions, methods, and data of the ERFC plan.

Funded status measurements shown in this report are determined based on various measures of plan assets and liabilities. For entity and plan disclosure and reporting purposes, funded status is determined using plan assets measured at market value. Plan liabilities are measured based on the interest rates and other assumptions summarized in the Actuarial Assumptions and Methods section of this report.

These funded status measurements may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, and funded status measurements for ERFC and plan disclosure and reporting purposes may not be appropriate for assessing the need for or the amount of future contributions.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by ERFC as of the valuation date. While we cannot verify the accuracy of all the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results.

The actuarial assumptions and methods used in this valuation are described in the Actuarial Assumptions and Methods section of this report. ERFC selected the economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 68. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience and the combined effect of the assumptions have no significant bias.

The undersigned are familiar with the near-term and long-term aspects of pension valuations and collectively meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. The information provided in this report is dependent upon various factors as documented throughout this report, which may be subject to change. Each section of this report is considered to be an integral part of the actuarial opinions.

To our knowledge, no colleague of Aon providing services to ERFC has any material direct or indirect financial interest in ERFC. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this actuarial report for ERFC.



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Accounting Requirements

Development of GASB 68 Net Pension Expense

Calculation Details

The following table illustrates the Net Pension Liability under GASB 68.

	Fiscal Year Ending 06/30/2022	Fiscal Year Ending 06/30/2023
(1) Pension Liability	\$ 3,999,987,949	\$ 4,203,831,095
(2) Plan Fiduciary Net Position	<u>2,997,909,880</u>	<u>3,076,733,102</u>
(3) Net Pension Liability	\$ 1,002,078,069	\$ 1,127,097,993
(4) Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	74.95%	73.19%
(5) Deferred Outflow of Resources for Contributions Made After Measurement Date	\$ 0	\$ 0

Expense

The following table illustrates the pension expense under GASB 68.

	Fiscal Year Ending 06/30/2022	Fiscal Year Ending 06/30/2023
(1) Service Cost	\$ 92,063,438	\$ 97,264,457
(2) Interest Cost	268,463,381	279,596,095
(3) Expected Investment Return	(235,708,179)	(208,384,665)
(4) Employee Contributions	(50,017,839)	(52,542,598)
(5) Administrative Expense	4,481,381	5,625,786
(6) Plan Changes	0	0
(7) Amortization of Unrecognized		
(a) Liability (Gain)/Loss	10,165,352	15,764,456
(b) Asset (Gain)/Loss	8,408,111	30,477,543
(c) Assumption Change (Gain)/Loss	<u>27,484,352</u>	<u>22,056,298</u>
(8) Total Expense	\$ 125,339,997	\$ 189,857,372

Shown below are details regarding the calculation of Service and Interest Cost components of the Expense.

	Fiscal Year Ending 06/30/2022	Fiscal Year Ending 06/30/2023
(1) Development of Service Cost:		
(a) Normal Cost at Beginning of Measurement Period	\$ 92,063,438	\$ 97,264,457
(2) Development of Interest Cost:		
(a) Total Pension Liability at Beginning of Measurement Period	\$ 3,710,207,503	\$ 3,999,987,949
(b) Normal Cost at Beginning of Measurement Period	92,063,438	97,264,457
(c) Actual Benefit Payments	(198,655,496)	(206,044,965)
(d) Discount Rate, Beginning of Measurement Period	<u>7.25%</u>	<u>7.00%</u>
(e) Interest Cost [(a) + (b) + {(c) ÷ 2}] x (d)	\$ 268,463,381	\$ 279,596,095
(3) Development of Expected Investment Return:		
(a) Plan Fiduciary Net Position at Beginning of Measurement Period	\$ 3,272,151,084	\$ 2,997,909,880
(b) Prior Period Adjustment	(4,001)	N/A
(c) Actual Contributions—Employer	111,119,456	117,155,967
(d) Actual Contributions—Employee	50,017,839	52,542,598
(e) Actual Benefit Payments	(198,655,496)	(206,044,965)
(f) Administrative Expenses	(4,481,381)	(5,625,786)
(g) Other	0	0
(h) Expected Return on Assets, Beginning of Measurement Period	<u>7.25%</u>	<u>7.00%</u>
(i) Expected Return [(a) + (b) + {(c)+(d)+(e)+(f) ÷ 2}] x (h)	\$ 235,708,179	\$ 208,384,665

Reconciliation of Net Pension Liability

Shown below are details regarding the Total Pension Liability, Plan Fiduciary Net Position, and Net Pension Liability for the Measurement Period from June 30, 2022 to June 30, 2023:

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (c) = (a) – (b)
Balance Recognized at 06/30/2022 (Based on 06/30/2022 Measurement Date)	\$ 3,999,987,949	\$ 2,997,909,880	\$ 1,002,078,069
Changes Recognized for the Fiscal Year:			
Service Cost	\$ 97,264,457	N/A	\$ 97,264,457
Interest on the Total Pension Liability	279,596,095	N/A	279,596,095
Changes of Benefit Terms	0	N/A	0
Differences Between Expected and Actual Experience	33,027,559	N/A	33,027,559
Changes of Assumptions	0	N/A	0
Benefit Payments	(206,044,965)	(206,044,965)	0
Contributions From the Employer	N/A	117,155,967	(117,155,967)
Contributions From the Employee	N/A	52,542,598	(52,542,598)
Net Investment Income	N/A	120,795,408	(120,795,408)
Administrative Expense	N/A	(5,625,786)	5,625,786
Net Changes	\$ 203,843,146	\$ 78,823,222	\$ 125,019,924
Balance Recognized at 06/30/2023 (Based on 06/30/2023 Measurement Date)	\$ 4,203,831,095	\$ 3,076,733,102	\$ 1,127,097,993

Liability (Gain)/Loss

The following table illustrates the liability gain/loss under GASB 68.

	Fiscal Year Ending 06/30/2022	Fiscal Year Ending 06/30/2023
(1) Pension Liability at Beginning of Measurement Period	\$ 3,710,207,503	\$ 3,999,987,949
(2) Service Cost	92,063,438	97,264,457
(3) Interest on the Total Pension Liability	268,463,381	279,596,095
(4) Changes of Benefit Terms	0	0
(5) Changes of Assumptions	133,042,334	0
(6) Benefit Payments	<u>(198,655,496)</u>	<u>(206,044,965)</u>
(7) Expected Pension Liability at End of Measurement Period	\$ 4,005,121,160	\$ 4,170,803,536
(8) Actual Pension Liability at End of Measurement Period	<u>3,999,987,949</u>	<u>4,203,831,095</u>
(9) Pension Liability (Gain)/Loss	\$ (5,133,211)	\$ 33,027,559
(10) Average Future Working Life Expectancy	<u>5.8552</u>	<u>5.8149</u>
(11) Total Pension Liability (Gain)/Loss Amortization [(9) ÷ (10)]	\$ (876,693)	\$ 5,679,815
(12) Pension Assumption Change (Gain)/Loss Amortization [(5) ÷ (10)]	<u>22,722,082</u>	<u>0</u>
(13) Pension Overall Liability (Gain)/Loss Amortization [(11) + (12)]	\$ 21,845,389	\$ 5,679,815

Liability (Gain)/Loss Impact on Expense

The following table details the allocation of the FY2023 liability gain/loss in the expense calculation under GASB 68

	Fiscal Year Ending 6/30/2022	Fiscal Year Ending 6/30/2023
(1) Total Liability (Gain)/Loss	\$ (5,133,211)	\$ 33,027,559
(2) Recognized in Current Year Expense	<u>(876,693)</u>	<u>5,679,815</u>
(3) Amount to be recognized in Future Years as Deferred Outflow [(1) – (2)]	\$ (4,256,518)	\$ 27,347,744

Assumptions Change Impact on Expense

The following table details the allocation of the FY2023 liability assumption change in the expense calculation under GASB 68.

	Fiscal Year Ending 6/30/2022	Fiscal Year Ending 6/30/2023
(1) Total Liability Assumption Change (Gain)/Loss	\$ 133,042,334	\$ 0
(2) Recognized in Current Year Expense	<u>22,722,082</u>	<u>0</u>
(3) Amount to be recognized in Future Years as Deferred Inflow [(1) – (2)]	\$ 110,320,252	\$ 0

Asset (Gain)/Loss

The following table illustrates the asset gain/loss under GASB 68.

	Fiscal Year Ending 06/30/2022	Fiscal Year Ending 06/30/2023
(1) Pension Asset at Beginning of Measurement Period	\$ 3,272,151,084	\$ 2,997,909,880
(2) Prior Period Adjustment	(4,001)	N/A
(3) Contributions—Employer	111,119,456	117,155,967
(4) Contributions—Employee	50,017,839	52,542,598
(5) Expected Investment Income	235,708,179	208,384,665
(6) Benefit Payments	(198,655,496)	(206,044,965)
(7) Administrative Expense	(4,481,381)	(5,625,786)
(8) Other	<u>0</u>	<u>0</u>
(9) Expected Pension Asset at End of Measurement Period	\$ 3,465,855,680	\$ 3,164,322,359
(10) Actual Pension Asset at End of Measurement Period	<u>2,997,909,880</u>	<u>3,076,733,102</u>
(11) Pension Asset (Gain)/Loss	\$ 467,945,800	\$ 87,589,257
(12) Amortization Factor	<u>5.0000</u>	<u>5.0000</u>
(13) Pension Asset (Gain)/Loss Amortization	\$ 93,589,160	\$ 17,517,851

Asset (Gain)/Loss Impact on Expense

The following table details the allocation of the FY2022 asset gain/loss in the expense calculation under GASB 68.

	Fiscal Year Ending 6/30/2022	Fiscal Year Ending 6/30/2023
(1) Total Asset (Gain)/Loss	\$ 467,945,800	\$ 87,589,257
(2) Recognized in Current Year Expense	<u>93,589,160</u>	<u>17,517,851</u>
(3) Amount to be recognized in Future Years as Deferred Inflows [(1) – (2)]	\$ 374,356,640	\$ 70,071,406

Deferred Outflows/Inflows

The following table illustrates the Deferred Inflows and Outflows as of June 30, 2023 under GASB 68.

	Deferred Outflows	Deferred Inflows
(1) Difference Between Actual and Expected Experience	\$ 50,366,018	\$ (8,492,016)
(2) Net Difference Between Expected and Actual Earnings on Pension Plan Investments	\$ 151,744,496	\$ 0
(3) Assumption Changes	<u>87,598,170</u>	<u>(8,612,146)</u>
(4) Sub Total	\$ 289,708,684	\$ (17,104,162)
(5) Contributions Made in Fiscal Year Ending 2022 After Measurement Date	<u>0</u>	<u>0</u>
(6) Total	\$ 289,708,684	\$ (17,104,162)

Amortization of Deferred Inflows/Outflows

The table below lists the amortization bases included in the deferred inflows/outflows as of June 30, 2022.

Date	Established Type of Base	Period		Balance		Annual Payment
		Original	Remaining	Original	Remaining	
6/30/2016	Liability (Gain)/Loss	6.6385	0.0000	19,857,344	0	1,909,904
6/30/2016	Assumptions	6.6385	0.0000	23,334,195	0	2,244,315
6/30/2017	Liability (Gain)/Loss	6.5355	0.5355	12,140,768	994,778	1,857,665
6/30/2018	Liability (Gain)/Loss	6.7688	1.7688	27,726,555	7,245,410	4,096,229
6/30/2018	Asset (Gain)/Loss	5.0000	0.0000	58,084,778	0	11,616,954
6/30/2019	Liability (Gain)/Loss	6.6962	2.6962	(12,696,483)	(5,112,191)	(1,896,073)
6/30/2019	Asset (Gain)/Loss	5.0000	1.0000	73,007,730	14,601,546	14,601,546
6/30/2020	Liability (Gain)/Loss	5.9594	2.9594	29,758,913	14,778,086	4,993,609
6/30/2020	Asset (Gain)/Loss	5.0000	2.0000	(534,239,840)	(213,695,936)	(106,847,968)
6/30/2020	Assumptions	5.9594	2.9594	(17,342,443)	(8,612,146)	(2,910,099)
6/30/2021	Liability (Gain)/Loss	5.8552	3.8552	(5,133,211)	(3,379,825)	(876,693)
6/30/2021	Asset (Gain)/Loss	5.0000	3.0000	467,945,800	280,767,480	93,589,160
6/30/2021	Assumptions	5.8552	3.8552	133,042,334	87,598,170	22,722,082
6/30/2022	Liability (Gain)/Loss	5.8149	4.8149	33,027,559	27,347,744	5,679,815
6/30/2022	Asset (Gain)/Loss	5.0000	4.0000	87,589,257	70,071,406	17,517,851
	Total Charges			396,103,256	272,604,522	68,298,297

Amounts Recognized in the deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the pension expense as follows:

Year End June 30:

2024	\$ 51,664,237
2025	\$ 35,120,865
2026	\$ 139,311,090
2027	\$ 41,879,846
2028	\$ 4,628,484
Total Thereafter	\$ 0

Statement of Fiduciary Net Position

	Fiscal Year Ending June 30, 2022	Fiscal Year Ending June 30, 2023
Assets		
Cash Equivalents	\$ 159,591,493	\$ 208,468,363
Receivables		
Contributions	\$ 0	\$ 0
Investment Income	3,783,713	2,530,231
Accounts Receivable – Sale of Investments	6,778,208	17,449,687
Other receivables	14,534	14,198
Total Receivables	<u>\$ 10,576,455</u>	<u>\$ 19,994,116</u>
Investments		
Equities	\$ 288,897,994	\$ 314,666,906
Bonds and Mortgage Backed Securities	431,068,837	426,672,387
U.S. Government Obligations	140,353,981	160,214,589
Preferred Securities	0	0
Real Estate	222,855,620	271,172,886
Global Asset Allocation	0	0
Better Beta	0	0
Multi Asset Class Solutions (MACS)	192,343,465	126,407,441
Hedge Fund of Funds	263,871,419	225,645,325
Private Equity	309,762,531	316,852,573
Private Debt	50,349,798	61,387,456
Infrastructure	29,519,738	53,947,972
Natural Resources	0	13,554,618
Commingled Fixed Income Funds	181,214,664	169,316,809
Commingled Equity Funds	842,946,628	888,977,897
Total Investments	<u>\$ 2,953,184,675</u>	<u>\$ 3,028,816,859</u>
Prepaid Expenses	\$ 0	\$ 0
Other	\$ 336,023	\$ 2,603,176
Total Assets	<u>\$ 3,123,688,646</u>	<u>\$ 3,259,882,514</u>
Liabilities		
Payables		
Accounts Payable & Securities Purchased	\$ 25,082,860	\$ 27,331,045
Securities lending Collateral	100,361,317	153,057,006
Other	334,590	2,761,361
Total Liabilities	<u>\$ 125,778,766</u>	<u>\$ 183,149,412</u>
Net Position Restricted for Pensions	\$ 2,997,909,880	\$ 3,076,733,102

Statement of Change in Fiduciary Net Position

	Fiscal Year Ending June 30, 2022	Fiscal Year Ending June 30, 2023
Additions		
Contributions:		
Employer	\$ 111,119,456	\$ 117,155,967
Employee	50,017,839	52,542,598
	<hr/>	<hr/>
Total Contributions	\$ 161,137,295	\$ 169,698,565
Investment Income:		
Net Increase in Fair value of Investments	\$ (253,636,057)	\$ 95,289,778
Interest and Dividends	30,133,983	31,876,806
Real Estate	0	0
Less Investment Expense	(9,117,441)	(7,006,173)
	<hr/>	<hr/>
Net Investment Income	\$ (232,619,515)	\$ 120,160,411
Other	381,894	634,997
	<hr/>	<hr/>
Total Additions	\$ (71,100,326)	\$ 290,493,973
Deductions		
Benefit Payments/Refunds	\$ 198,655,496	\$ 206,044,965
Administrative Expenses	4,155,162	5,119,588
Depreciation Expense	326,219	506,198
Other	0	0
	<hr/>	<hr/>
Total Deductions	\$ 203,136,877	\$ 211,670,751
Net Increase in Net Position	\$ (274,237,203)	\$ 78,823,222
Net Position Restricted for Pensions		
Beginning of Year	\$ 3,272,147,083	\$ 2,997,909,880
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End of Year	\$ 2,997,909,880	\$ 3,076,733,102

Plan Fiduciary Net Position Projection

GASB Statement Number 67 includes specific instructions on how to determine the discount rate that should be used for the purposes of measuring the Total Pension Liability, by factoring in the ability of the plans assets to pay benefit obligations in future years. This is done by projecting employer contributions, employee contributions, benefit payments, expenses and investment return into the future. The Fiduciary Net Position (or fund assets) determined each year is then compared with the benefit obligations that are expected to be paid in those years. If the fund has sufficient assets to pay the projected benefit payments in a future year, the assumed expected return on plan assets is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.00%; the municipal bond rate is 3.65%; and the resulting SDR is 7.00%. We have relied on the information provided by ERF's investment advisors, Segal Marco Advisors, for purposes of determining the expected rate of return on pension plan investments. We believe the analysis reasonably supports the use of a 7.00% expected rate of return.

The tables in this section provide background for the development of the SDR.

The Projection of Contributions table shows the development of expected contributions in future years. Normal cost contributions for future hires are not included (nor are their liabilities).

The Projection of Plan Fiduciary Net Position table shows the development of expected asset levels in future years.

The Present Values of Projected Benefit Payments table shows the development of the SDR. It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

Reasonable Actuarially Determined Contribution

The actuarially determined contribution is considered reasonable because it meets the criteria of Section 3.21 of Actuarial Standard of Practice No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions* (ASOP 4):

- All significant assumptions are reasonable
- Combined impact of assumptions are projected to have no significant bias
- The actuarial cost method allocates cost in a reasonable way over employees' careers
- Amortizations are projected to either fully amortize the unfunded liability or reduce the unfunded accrued liability by a reasonable amount within a reasonable period.
- The asset method and output smoothing method (if any) are consistent with actuarial standards.
- Contributions are projected to accumulate assets adequate to make benefit payments when due.

Plan Fiduciary Net Position Projection

Projection of Contributions¹

Fiscal Year	Payroll for Current Employees	Contributions From Current Employees	Service Cost and Expense Contributions	UAL Contributions	Total Contributions
2024	1,845,528,729	55,365,862	49,460,170	70,130,092	174,956,124
2025	1,764,395,132	52,931,854	47,285,790	71,458,003	171,675,647
2026	1,692,318,523	50,769,556	45,354,136	78,574,349	174,698,041
2027	1,625,289,300	48,758,679	43,557,753	85,100,148	177,416,580
2028	1,563,739,673	46,912,190	41,908,223	91,150,386	179,970,799
2029	1,508,122,722	45,243,682	40,417,689	96,851,641	182,513,012
2030	1,457,782,688	43,733,481	39,068,576	102,263,456	185,065,513
2031	1,411,364,819	42,340,945	37,824,577	107,376,635	187,542,157
2032	1,368,238,402	41,047,152	36,668,789	112,209,231	189,925,172
2033	1,326,631,221	39,798,937	35,553,717	116,663,950	192,016,604
2034	1,284,603,961	38,538,119	34,427,386	120,585,774	193,551,279
2035	1,242,972,801	37,289,184	33,311,671	124,048,686	194,649,541
2036	1,201,934,695	36,058,041	32,211,850	127,080,555	195,350,446
2037	1,160,825,535	34,824,766	31,110,124	129,617,779	195,552,669
2038	1,119,333,629	33,580,009	29,998,141	131,622,441	195,200,591
2039	1,077,323,620	32,319,709	28,872,273	133,071,014	194,262,996
2040	1,035,143,929	31,054,318	27,741,857	133,999,382	192,795,557
2041	992,330,132	29,769,904	26,594,448	134,341,653	190,706,005
2042	946,427,084	28,392,813	25,364,246	133,739,611	187,496,670
2043	893,891,456	26,816,744	23,956,291	131,616,578	182,389,613
2044	835,105,621	25,053,169	22,380,831	0	47,434,000
2045	772,251,040	23,167,531	20,696,328	0	43,863,859
2046	707,521,254	21,225,638	18,961,570	0	40,187,208
2047	642,850,519	19,285,516	17,228,394	0	36,513,910
2048	577,746,592	17,332,398	15,483,609	0	32,816,007
2049	514,890,667	15,446,720	13,799,070	0	29,245,790
2050	457,692,235	13,730,767	12,266,152	0	25,996,919
2051	404,542,426	12,136,273	10,841,737	0	22,978,010
2052	350,236,184	10,507,086	9,386,330	0	19,893,416
2053	292,813,424	8,784,403	7,847,400	0	16,631,803
2054	235,509,992	7,065,300	6,311,668	0	13,376,968
2055	181,829,718	5,454,892	4,873,036	0	10,327,928
2056	132,994,047	3,989,821	3,564,240	0	7,554,061
2057	89,626,688	2,688,801	2,401,995	0	5,090,796
2058	55,086,112	1,652,583	1,476,308	0	3,128,891
2059	33,418,664	1,002,560	895,620	0	1,898,180
2060	21,690,563	650,717	581,307	0	1,232,024
2061	14,226,152	426,785	381,261	0	808,046
2062	9,292,291	278,769	249,033	0	527,802
2063	6,088,323	182,650	163,167	0	345,817
2064	4,004,519	120,136	107,321	0	227,457
2065	2,633,639	79,009	70,582	0	149,591
2066	1,725,654	51,770	46,248	0	98,018
2067	1,123,940	33,718	30,122	0	63,840
2068	724,897	21,747	19,427	0	41,174
2069	461,997	13,860	12,382	0	26,242
2070	289,449	8,683	7,757	0	16,440

¹ The projections in this report are strictly for the purposes of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

Fiscal Year	Payroll for Current Employees	Contributions From Current Employees	Service Cost and Expense Contributions	UAL Contributions	Total Contributions
2071	175,443	5,263	4,702	0	9,965
2072	101,557	3,047	2,722	0	5,769
2073	55,140	1,654	1,478	0	3,132
2074	26,994	810	723	0	1,533
2075	10,975	329	294	0	623
2076	3,653	110	98	0	208
2077	994	30	27	0	57
2078	317	10	8	0	18
2079	149	4	4	0	8
2080	53	2	1	0	3
2081	5	0	0	0	0
2082	0	0	0	0	0
2083	0	0	0	0	0

Plan Fiduciary Net Position Projection

Projection of Plan Fiduciary Net Position Ending June 30, 2024¹

Fiscal Year	Beginning Plan Net Position	Total Contributions	Benefit Payments	Admin Expenses	Investment Return 7.00%	Ending Plan Net Position
2024	3,076,733,102	174,956,124	216,245,205	5,773,705	213,855,545	3,243,525,861
2025	3,243,525,861	171,675,647	225,814,037	6,086,703	225,076,207	3,408,376,975
2026	3,408,376,975	174,698,041	236,774,905	6,396,058	236,333,783	3,576,237,836
2027	3,576,237,836	177,416,580	248,285,682	6,711,061	247,772,290	3,746,429,963
2028	3,746,429,963	179,970,799	259,035,254	7,030,438	259,394,276	3,919,729,346
2029	3,919,729,346	182,513,012	269,443,217	7,355,646	271,244,902	4,096,688,397
2030	4,096,688,397	185,065,513	279,827,428	7,687,723	283,352,647	4,277,591,406
2031	4,277,591,406	187,542,157	289,538,924	8,027,200	295,756,706	4,463,324,145
2032	4,463,324,145	189,925,172	299,066,667	8,375,740	308,501,580	4,654,308,489
2033	4,654,308,489	192,016,604	308,350,997	8,734,136	321,611,896	4,850,851,857
2034	4,850,851,857	193,551,279	317,778,543	9,102,963	335,086,572	5,052,608,201
2035	5,052,608,201	194,649,541	326,126,170	9,481,573	348,947,702	5,260,597,702
2036	5,260,597,702	195,350,446	332,548,174	9,871,880	363,297,101	5,476,825,194
2037	5,476,825,194	195,552,669	338,442,826	10,277,646	378,223,318	5,701,880,709
2038	5,701,880,709	195,200,591	344,216,256	10,699,978	393,751,697	5,935,916,763
2039	5,935,916,763	194,262,996	350,314,734	11,139,163	409,876,457	6,178,602,319
2040	6,178,602,319	192,795,557	357,601,364	11,594,580	426,546,697	6,428,748,629
2041	6,428,748,629	190,706,005	366,629,118	12,063,997	443,657,025	6,684,418,544
2042	6,684,418,544	187,496,670	377,899,370	12,543,779	461,037,297	6,942,509,362
2043	6,942,509,362	182,389,613	390,886,751	13,028,105	478,461,372	7,199,445,491
2044	7,199,445,491	47,434,000	405,730,399	13,510,263	491,196,124	7,318,834,953
2045	7,318,834,953	43,863,859	422,588,733	13,734,306	498,840,660	7,425,216,432
2046	7,425,216,432	40,187,208	440,757,081	13,933,938	505,526,674	7,516,239,296
2047	7,516,239,296	36,513,910	460,644,152	14,104,749	511,079,557	7,589,083,861
2048	7,589,083,861	32,816,007	481,188,999	14,241,447	515,337,638	7,641,807,061
2049	7,641,807,061	29,245,790	500,770,364	14,340,386	518,226,144	7,674,168,245
2050	7,674,168,245	25,996,919	518,954,836	14,401,114	519,749,935	7,686,559,148
2051	7,686,559,148	22,978,010	536,731,765	14,424,366	519,899,167	7,678,280,194
2052	7,678,280,194	19,893,416	554,849,699	14,408,830	518,588,811	7,647,503,892
2053	7,647,503,892	16,631,803	572,753,679	14,351,076	515,706,260	7,592,737,200
2054	7,592,737,200	13,376,968	589,432,023	14,248,303	511,188,339	7,513,622,181
2055	7,513,622,181	10,327,928	603,953,453	14,099,838	505,049,026	7,410,945,844
2056	7,410,945,844	7,554,061	616,563,249	13,907,159	497,337,348	7,285,366,845
2057	7,285,366,845	5,090,796	626,964,044	13,671,501	488,110,841	7,137,932,937
2058	7,137,932,937	3,128,891	633,240,300	13,394,831	477,515,367	6,971,942,064
2059	6,971,942,064	1,898,180	635,749,906	13,083,337	465,777,299	6,790,784,300
2060	6,790,784,300	1,232,024	636,115,187	12,743,382	453,072,068	6,596,229,823
2061	6,596,229,823	808,046	634,863,398	12,378,287	439,494,049	6,389,290,233
2062	6,389,290,233	527,802	632,260,677	11,989,950	425,101,386	6,170,668,794
2063	6,170,668,794	345,817	628,206,181	11,579,692	409,945,139	5,941,173,878
2064	5,941,173,878	227,457	622,575,494	11,149,029	394,084,912	5,701,761,723
2065	5,701,761,723	149,591	615,340,106	10,699,755	377,587,750	5,453,459,203
2066	5,453,459,203	98,018	606,376,188	10,233,798	360,529,232	5,197,476,467
2067	5,197,476,467	63,840	595,505,346	9,753,428	342,999,817	4,935,281,350
2068	4,935,281,350	41,174	582,812,691	9,261,401	325,099,025	4,668,347,456
2069	4,668,347,456	26,242	568,421,023	8,760,481	306,925,554	4,398,117,748
2070	4,398,117,748	16,440	552,504,144	8,253,376	288,574,249	4,125,950,917

¹ The projections in this report are strictly for the purposes of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

Educational Employees' Supplementary Retirement System of Fairfax County
Proprietary & Confidential

Fiscal Year	Beginning Plan Net Position	Total Contributions	Benefit Payments	Admin Expenses	Investment Return 7.00%	Ending Plan Net Position
2071	4,125,950,917	9,965	535,248,567	7,742,636	270,133,648	3,853,103,327
2072	3,853,103,327	5,769	516,668,844	7,230,618	251,691,079	3,580,900,714
2073	3,580,900,714	3,132	496,759,850	6,719,811	233,339,410	3,310,763,594
2074	3,310,763,594	1,533	475,613,200	6,212,880	215,174,813	3,044,113,860
2075	3,044,113,860	623	453,330,256	5,712,493	197,293,229	2,782,364,963
2076	2,782,364,963	208	430,048,569	5,221,303	179,788,770	2,526,884,069
2077	2,526,884,069	57	405,926,964	4,741,875	162,751,576	2,278,966,863
2078	2,278,966,863	18	381,107,830	4,276,641	146,267,355	2,039,849,766
2079	2,039,849,766	8	355,807,994	3,827,921	130,415,116	1,810,628,974
2080	1,810,628,974	3	330,180,617	3,397,772	115,266,249	1,592,316,837
2081	1,592,316,837	0	304,453,278	2,988,094	100,883,723	1,385,759,188
2082	1,385,759,188	0	278,989,649	2,600,474	87,314,178	1,191,483,243
2083	1,191,483,243	0	253,947,800	2,235,902	74,589,047	1,009,888,588
2084	1,009,888,588	0	229,476,209	1,895,127	62,731,166	841,248,418
2085	841,248,418	0	205,691,586	1,578,662	51,755,626	685,733,795
2086	685,733,795	0	182,853,591	1,286,827	41,665,454	543,258,832
2087	543,258,832	0	161,255,318	1,019,463	32,444,561	413,428,611
2088	413,428,611	0	140,939,752	775,828	24,063,847	295,776,878
2089	295,776,878	0	121,996,009	555,046	16,487,639	189,713,463
2090	189,713,463	0	104,522,356	356,011	9,671,283	94,506,379
2091	94,506,379	0	88,581,598	177,348	3,561,425	9,308,857
2092	9,308,857	0	74,207,018	17,469	0	0
2093	0	0	61,405,100	0	0	0
2094	0	0	50,154,009	0	0	0
2095	0	0	40,404,625	0	0	0
2096	0	0	32,081,913	0	0	0
2097	0	0	25,087,548	0	0	0
2098	0	0	19,305,004	0	0	0
2099	0	0	14,605,580	0	0	0
2100	0	0	10,854,491	0	0	0
2101	0	0	7,916,498	0	0	0
2102	0	0	5,660,701	0	0	0
2103	0	0	3,964,581	0	0	0
2104	0	0	2,717,052	0	0	0
2105	0	0	1,820,430	0	0	0
2106	0	0	1,191,398	0	0	0
2107	0	0	761,071	0	0	0
2108	0	0	474,270	0	0	0
2109	0	0	288,209	0	0	0
2110	0	0	170,802	0	0	0
2111	0	0	98,779	0	0	0
2112	0	0	55,821	0	0	0
2113	0	0	30,882	0	0	0
2114	0	0	16,752	0	0	0
2115	0	0	8,915	0	0	0
2116	0	0	4,652	0	0	0
2117	0	0	2,372	0	0	0
2118	0	0	1,169	0	0	0
2119	0	0	546	0	0	0
2120	0	0	235	0	0	0
2121	0	0	94	0	0	0
2122	0	0	36	0	0	0
2123	0	0	14	0	0	0
2124	0	0	5	0	0	0
2125	0	0	2	0	0	0
2126	0	0	0	0	0	0

Plan Fiduciary Net Position Projection

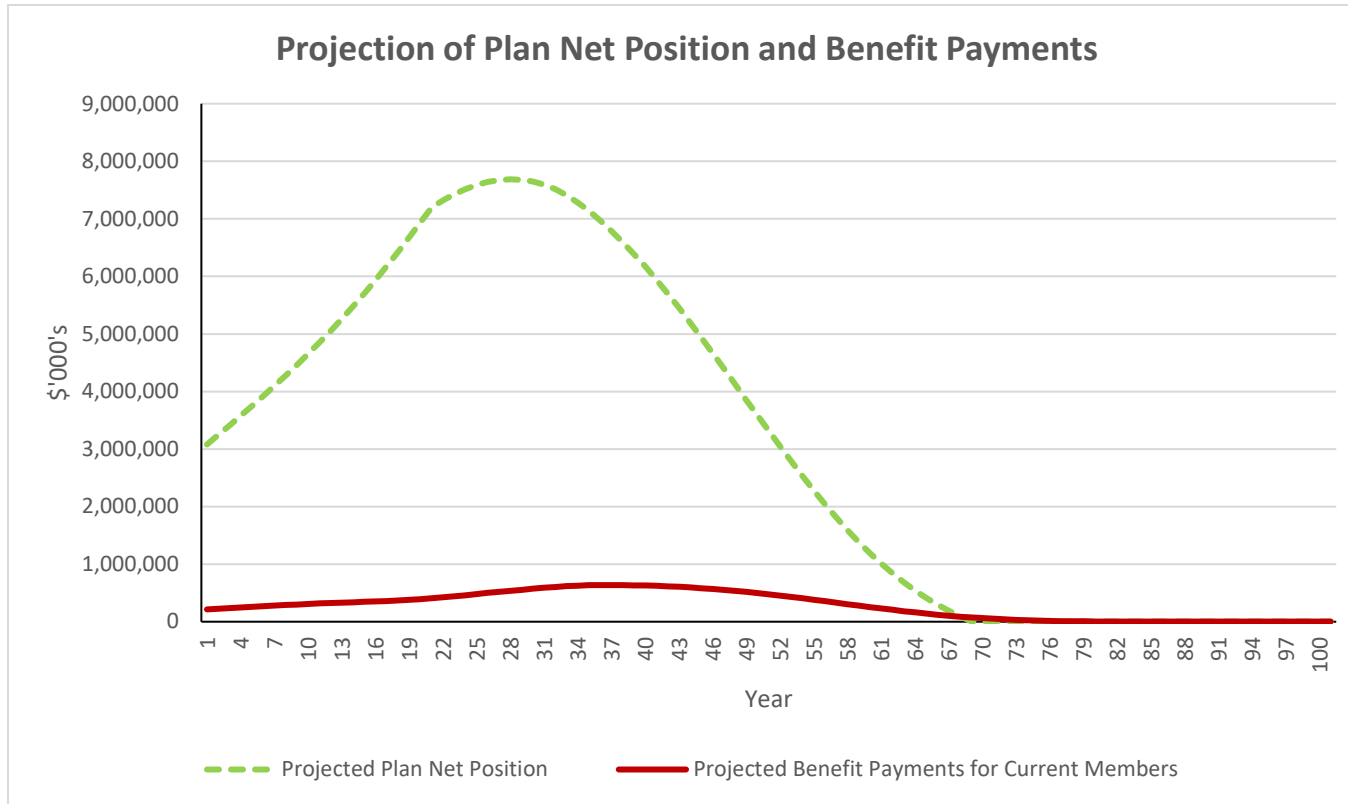
Present Values of Projected Benefits Ending June 30, 2024¹

Fiscal Year	Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefits Using EROA 7.00%	Present Value of Unfunded Benefits Municipal Rate 3.65%	Present Value of Benefits Using Single Rate 7.00%
2024	3,076,733,102	216,245,205	216,245,205	0	209,052,130	0	209,052,130
2025	3,243,525,861	225,814,037	225,814,037	0	204,021,186	0	204,021,186
2026	3,408,376,975	236,774,905	236,774,905	0	199,929,199	0	199,929,199
2027	3,576,237,836	248,285,682	248,285,682	0	195,933,390	0	195,933,390
2028	3,746,429,963	259,035,254	259,035,254	0	191,043,328	0	191,043,328
2029	3,919,729,346	269,443,217	269,443,217	0	185,719,060	0	185,719,060
2030	4,096,688,397	279,827,428	279,827,428	0	180,258,489	0	180,258,489
2031	4,277,591,406	289,538,924	289,538,924	0	174,312,537	0	174,312,537
2032	4,463,324,145	299,066,667	299,066,667	0	168,269,692	0	168,269,692
2033	4,654,308,489	308,350,997	308,350,997	0	162,143,472	0	162,143,472
2034	4,850,851,857	317,778,543	317,778,543	0	156,169,027	0	156,169,027
2035	5,052,608,201	326,126,170	326,126,170	0	149,786,339	0	149,786,339
2036	5,260,597,702	332,548,174	332,548,174	0	142,743,830	0	142,743,830
2037	5,476,825,194	338,442,826	338,442,826	0	135,770,155	0	135,770,155
2038	5,701,880,709	344,216,256	344,216,256	0	129,052,553	0	129,052,553
2039	5,935,916,763	350,314,734	350,314,734	0	122,746,707	0	122,746,707
2040	6,178,602,319	357,601,364	357,601,364	0	117,102,680	0	117,102,680
2041	6,428,748,629	366,629,118	366,629,118	0	112,204,647	0	112,204,647
2042	6,684,418,544	377,899,370	377,899,370	0	108,087,701	0	108,087,701
2043	6,942,509,362	390,886,751	390,886,751	0	104,488,209	0	104,488,209
2044	7,199,445,491	405,730,399	405,730,399	0	101,360,818	0	101,360,818
2045	7,318,834,953	422,588,733	422,588,733	0	98,665,812	0	98,665,812
2046	7,425,216,432	440,757,081	440,757,081	0	96,175,466	0	96,175,466
2047	7,516,239,296	460,644,152	460,644,152	0	93,939,185	0	93,939,185
2048	7,589,083,861	481,188,999	481,188,999	0	91,709,249	0	91,709,249
2049	7,641,807,061	500,770,364	500,770,364	0	89,197,419	0	89,197,419
2050	7,674,168,245	518,954,836	518,954,836	0	86,389,200	0	86,389,200
2051	7,686,559,148	536,731,765	536,731,765	0	83,503,256	0	83,503,256
2052	7,678,280,194	554,849,699	554,849,699	0	80,674,762	0	80,674,762
2053	7,647,503,892	572,753,679	572,753,679	0	77,829,895	0	77,829,895
2054	7,592,737,200	589,432,023	589,432,023	0	74,856,326	0	74,856,326
2055	7,513,622,181	603,953,453	603,953,453	0	71,682,719	0	71,682,719
2056	7,410,945,844	616,563,249	616,563,249	0	68,391,930	0	68,391,930
2057	7,285,366,845	626,964,044	626,964,044	0	64,995,918	0	64,995,918
2058	7,137,932,937	633,240,300	633,240,300	0	61,351,928	0	61,351,928
2059	6,971,942,064	635,749,906	635,749,906	0	57,565,489	0	57,565,489
2060	6,790,784,300	636,115,187	636,115,187	0	53,830,434	0	53,830,434
2061	6,596,229,823	634,863,398	634,863,398	0	50,209,816	0	50,209,816
2062	6,389,290,233	632,260,677	632,260,677	0	46,732,685	0	46,732,685
2063	6,170,668,794	628,206,181	628,206,181	0	43,395,329	0	43,395,329
2064	5,941,173,878	622,575,494	622,575,494	0	40,192,871	0	40,192,871
2065	5,701,761,723	615,340,106	615,340,106	0	37,126,879	0	37,126,879
2066	5,453,459,203	606,376,188	606,376,188	0	34,192,558	0	34,192,558
2067	5,197,476,467	595,505,346	595,505,346	0	31,382,774	0	31,382,774
2068	4,935,281,350	582,812,691	582,812,691	0	28,704,560	0	28,704,560
2069	4,668,347,456	568,421,023	568,421,023	0	26,164,247	0	26,164,247
2070	4,398,117,748	552,504,144	552,504,144	0	23,767,849	0	23,767,849

¹ The projections in this report are strictly for the purposes of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

Educational Employees' Supplementary Retirement System of Fairfax County
Proprietary & Confidential

Fiscal Year	Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefits Using EROA 7.00%	Present Value of Unfunded Benefits Municipal Rate 3.65%	Present Value of Benefits Using Single Rate 7.00%
2071	4,125,950,917	535,248,567	535,248,567	0	21,519,198	0	21,519,198
2072	3,853,103,327	516,668,844	516,668,844	0	19,413,286	0	19,413,286
2073	3,580,900,714	496,759,850	496,759,850	0	17,444,137	0	17,444,137
2074	3,310,763,594	475,613,200	475,613,200	0	15,608,930	0	15,608,930
2075	3,044,113,860	453,330,256	453,330,256	0	13,904,333	0	13,904,333
2076	2,782,364,963	430,048,569	430,048,569	0	12,327,334	0	12,327,334
2077	2,526,884,069	405,926,964	405,926,964	0	10,874,663	0	10,874,663
2078	2,278,966,863	381,107,830	381,107,830	0	9,541,837	0	9,541,837
2079	2,039,849,766	355,807,994	355,807,994	0	8,325,610	0	8,325,610
2080	1,810,628,974	330,180,617	330,180,617	0	7,220,514	0	7,220,514
2081	1,592,316,837	304,453,278	304,453,278	0	6,222,336	0	6,222,336
2082	1,385,759,188	278,989,649	278,989,649	0	5,328,894	0	5,328,894
2083	1,191,483,243	253,947,800	253,947,800	0	4,533,250	0	4,533,250
2084	1,009,888,588	229,476,209	229,476,209	0	3,828,416	0	3,828,416
2085	841,248,418	205,691,586	205,691,586	0	3,207,113	0	3,207,113
2086	685,733,795	182,853,591	182,853,591	0	2,664,510	0	2,664,510
2087	543,258,832	161,255,318	161,255,318	0	2,196,060	0	2,196,060
2088	413,428,611	140,939,752	140,939,752	0	1,793,824	0	1,793,824
2089	295,776,878	121,996,009	121,996,009	0	1,451,136	0	1,451,136
2090	189,713,463	104,522,356	104,522,356	0	1,161,951	0	1,161,951
2091	94,506,379	88,581,598	88,581,598	0	920,319	0	920,319
2092	9,308,857	74,207,018	74,207,018	0	720,537	0	6,367,185
2093	0	61,405,100	61,405,100	0	557,227	0	5,083,205
2094	0	50,154,009	50,154,009	0	425,353	0	4,005,618
2095	0	40,404,625	40,404,625	0	320,251	0	3,113,334
2096	0	32,081,913	32,081,913	0	237,649	0	2,384,984
2097	0	25,087,548	25,087,548	0	173,680	0	1,799,344
2098	0	19,305,004	19,305,004	0	124,905	0	1,335,847
2099	0	14,605,580	14,605,580	0	88,317	0	975,071
2100	0	10,854,491	10,854,491	0	61,341	0	699,129
2101	0	7,916,498	7,916,498	0	41,811	0	491,940
2102	0	5,660,701	5,660,701	0	27,941	0	339,375
2103	0	3,964,581	3,964,581	0	18,289	0	229,318
2104	0	2,717,052	2,717,052	0	11,714	0	151,624
2105	0	1,820,430	1,820,430	0	7,335	0	98,011
2106	0	1,191,398	1,191,398	0	4,486	0	61,886
2107	0	761,071	761,071	0	2,678	0	38,141
2108	0	474,270	474,270	0	1,560	0	22,931
2109	0	288,209	288,209	0	886	0	13,444
2110	0	170,802	170,802	0	491	0	7,687
2111	0	98,779	98,779	0	265	0	4,289
2112	0	55,821	55,821	0	140	0	2,338
2113	0	30,882	30,882	0	72	0	1,248
2114	0	16,752	16,752	0	37	0	653
2115	0	8,915	8,915	0	18	0	335
2116	0	4,652	4,652	0	9	0	169
2117	0	2,372	2,372	0	4	0	83
2118	0	1,169	1,169	0	2	1	39
2119	0	546	546	0	1	2	18
2120	0	235	235	0	0	3	7
2121	0	94	94	0	0	4	3
2122	0	36	36	0	0	5	1
2123	0	14	14	0	0	6	0
2124	0	5	5	0	0	7	0
2125	0	2	2	0	0	8	0
2126	0	0	0	0	0	9	0



The projections in this report are strictly for the purposes of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

Investment Return Schedule

	Fiscal Year Ending June 30						
	2017	2018	2019	2020	2021	2022	2023
Annual money-weighted rate of return, Net of investment expense ¹	12.14%	8.29%	4.88%	4.49%	27.82%	(7.29%)	4.00%

¹ Annual money weighted rate or return, net of investment expense as supplied by ERFC Staff.

Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year ending June 30, 2022:

	1% Decrease (6.00%)	Current Rate (7.00%)	1% Increase (8.00%)
(1) Total Pension Liability	\$ 4,517,550,056	\$ 3,999,987,949	\$ 3,498,738,306
(2) Plan Fiduciary Net Position	<u>2,997,909,880</u>	<u>2,997,909,880</u>	<u>2,997,909,880</u>
(3) Net Pension Liability	\$ 1,519,640,176	\$ 1,002,078,069	\$ 500,747,426

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year ending June 30, 2023:

	1% Decrease (6.00%)	Current Rate (7.00%)	1% Increase (8.00%)
(1) Total Pension Liability	\$ 4,797,448,086	\$ 4,203,831,095	\$ 3,719,790,165
(2) Plan Fiduciary Net Position	<u>3,076,733,102</u>	<u>3,076,733,102</u>	<u>3,076,733,102</u>
(3) Net Pension Liability	\$ 1,720,714,984	\$ 1,127,097,933	\$ 643,057,063

Disclosure—Changes in the Net Pension Liability and Related Ratios

Changes in the Net Pension Liability and Related Ratios¹

	Fiscal Year Ending		
	2021	2022	2023
Total Pension Liability			
Service Cost	\$ 91,770,647	\$ 92,063,438	\$ 97,264,457
Interest Cost	253,330,122	268,463,381	279,596,095
Changes of Benefit Terms	0	0	0
Differences Between Expected and Actual Experiences	29,758,913	(5,133,211)	33,027,559
Changes of Assumptions	(17,342,443)	133,042,334	0
Benefit Payments	<u>(191,265,982)</u>	<u>(198,655,496)</u>	<u>(206,044,965)</u>
Net Change in Total Pension Liability	\$ 166,251,257	\$ 289,780,446	\$ 203,843,146
Total Pension Liability (Beginning)	<u>3,543,956,246</u>	<u>3,710,207,503</u>	<u>3,999,987,949</u>
Total Pension Liability (Ending)	\$ 3,710,207,503	\$ 3,999,987,949	\$ 4,203,831,095
Plan Fiduciary Net Position			
Contributions—Employer	\$ 104,784,310	\$ 111,119,456	\$ 117,155,967
Contributions—Member	48,934,340	50,017,839	52,542,598
Net Investment Income	720,738,680	(232,237,621)	120,795,408
Benefit Payments	(191,265,982)	(198,655,496)	(206,044,965)
Administrative Expense	(4,423,439)	(4,481,381)	(5,625,786)
Other	<u>0</u>	<u>0</u>	<u>0</u>
Net Change in Plan Fiduciary Net Position	\$ 678,767,909	\$ (274,237,203)	\$ 78,823,222
Plan Fiduciary Net Position (Beginning)	2,593,383,175	3,272,151,084	2,997,909,880
Prior Period Adjustment	<u>N/A</u>	<u>(4,001)</u>	<u>N/A</u>
Plan Fiduciary Net Position (Ending)	\$ 3,272,151,084	\$ 2,997,909,880	\$ 3,076,733,102
Net Pension Liability (Ending)	\$ 438,056,419	\$ 1,002,078,069	\$ 1,127,097,993
Net Position as a Percentage of Total Pension Liability	88.19%	74.95%	73.19%
Covered Payroll	\$ 1,627,085,559	\$ 1,658,499,343	\$ 1,748,596,522
Net Pension Liability as a Percentage of Payroll	26.93%	60.42%	64.46%

¹ GASB 68 was effective first the year beginning in 2014 and requires plan sponsors to report changes in Net Pension Liability for a rolling 10 year period

Disclosure—Contribution Schedule

Contributions

	Fiscal Year Ending		
	2021	2022	2023
Actuarially Determined Contribution	\$ 104,784,310	\$ 111,119,456	\$ 117,155,967
Contributions Made in Relation to the Actuarially Determined Contribution	<u>104,784,310</u>	<u>111,119,456</u>	<u>117,155,967</u>
Contribution Deficiency (Excess)	\$ 0	\$ 0	\$ 0
Covered Payroll	\$ 1,627,085,559	\$ 1,658,499,343	\$ 1,748,596,522
Contributions as a Percentage of Payroll ¹	6.44%	6.70%	6.70%

Notes to Schedule:

Valuation Date: Actuarial valuations performed as of odd numbered years typically determine the contribution rate for the two-year period beginning 18 months after the valuation date. The December 31, 2019 valuation was used to determine the funding policy contribution rates for Fiscal 2023. Each actuarial valuation determines an ADEC for the period beginning 18 months after the valuation date.

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method	Entry Age Normal with 19-year closed amortization period for initial unfunded and subsequent actuarial gains/losses from July 1, 2021.
Asset Valuation Method	5-Year smoothed market; 25% corridor.
IRS Limit Increases	2.50%
Salary Increases	2.75% to 7.25% including inflation
Investment Rate of Return	7.00%.
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	The mortality table used to measure retired life mortality was 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. 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 the published Juvenile rates. The corresponding Disabled and Employee tables were used for disability and pre-retirement mortality, respectively.

¹ Covered payroll in 2016 and later is reported in accordance with GASB 82. The ratio in the last row cannot always be compared to contributions required by the ERFC Board's funding policy.

Low-Default-Risk Obligation Measure (“LDRM”)

A key purpose of this report is to communicate an Actuarially Determined Contribution and Funded Percentage for the ERFC. For both of these calculations, we use an Actuarial Accrued Liability (i.e. Pension Liability) that represents the present value of the portion of expected future benefit payments accrued under the plan’s actuarial cost method, discounted back to the valuation date using an asset return expectation of 7.00%. The asset return expectation is based on the plan’s diversified asset portfolio and long-term capital market return assumptions for the various asset classes represented in the portfolio. The objective of the portfolio is to maximize investment returns with a reasonable amount of risk.

For all actuarial valuations with measurement dates on or after February 15, 2023, and for which an actuarial report is issued on or after February 15, 2023, Actuarial Standard of Practice No. 4 (ASOP 4) now requires the calculation and disclosure of an additional measure of the plan’s liability using a discount rate or discount rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.

This additional liability measure is referred to as the Low-Default-Risk Obligation Measure (LDRM). The LDRM shown in this report is based upon the Bond Buyer GO-20 index as of the measurement date, 3.65%, although other discount rates may also be appropriate for this purpose.

The LDRM can be thought of as a measure of what the plan’s funding liability would be if the plan were to use an ultra-low-risk investment policy. Since plan assets are not invested in an all-bond portfolio, the LDRM may not be appropriate for assessing funding status progress on an Actuarial Accrued Liability basis, necessary plan contributions, or the security of participant benefits.

All assumptions and methods other than the asset return assumption are the same for the calculation of Actuarial Accrued Liability and LDRM.

	Fiscal Year Ending June 30, 2023
LDRM	\$ 6,824,443,816
Interest Rate	3.65%
Actuarial Cost Method	Entry Age Normal

Appendix

Participant Data

The actuarial valuation was based on personnel information from ERFC records as of December 31, 2022. Following are some of the pertinent characteristics from the personnel data as of that date. Prior year characteristics are also provided for comparison purposes. Both age and service have been determined using years and months as of the valuation date.

	December 31, 2021	December 31, 2022
Active Participants	22,329	22,916
Inactives With Deferred Benefits	5,783	6,067
Inactives Receiving Payment	13,338	13,747
Total Participants	41,450	42,730

Asset Allocation

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2023 are summarized in the following table:

Asset Class¹	Segal and Maketa 20 Year Expected Real Arithmetic Rate of Return	Allocation
Domestic Equity (Large Cap)	6.7%	11.0%
Domestic Equity (Small)	7.6%	6.0%
International Equity	7.2%	5.0%
International Equity (Small Cap)	8.4%	5.0%
Emerging International Equity	8.7%	5.0%
Global Equity	7.0%	3.0%
Emerging Market Debt	3.7%	2.0%
US Fixed Income	1.6%	28.0%
Multi-Asset Class Solutions (MACS)	4.3%	4.0%
Hedge Funds Opportunistic	5.6%	5.0%
Infrastructure	6.9%	3.0%
Real Estate - Core	4.7%	7.0%
Private Equity	11.5%	7.0%
Private Debt	7.6%	4.0%
Natural Resources (Private)	9.8%	5.0%
Total		100.0%

The discount rate used to measure the total pension liability is 7.00%.

¹ These rates of return reflect ERFC's best estimate based on advice from Segal Marco, who also use an inflation assumption of 2.4%.

Actuarial Assumptions and Methods

Discount Rate	7.00%
20-Year Municipal Bond Rate	3.54%, Beginning of Measurement Period 3.65%, End of Measurement Period
Municipal Bond Rate Basis	Bond Buyer GO 20-Bond Municipal Bond Index
Expected Return on Assets	7.00%
Salary Increases	See Table I.
General Inflation	2.75%
Retirement Age	
Active Participants	See Table II.
Terminated Vested Participants	
Members Hired After July 1, 1988 but Before July 1, 2001:	50% at age 55, 25% at age 60 and 25% at age 65.
Members Hired After July 1, 2001:	Age 60.
Mortality Rates	
Healthy and Disabled	The mortality table used to measure retired life mortality was 102% of the male rates and 99% of the female rates of the PUB-2010 Teachers table projected generationally with Scale MP-2020. The corresponding Disabled and Employee tables were used for disability and pre-retirement mortality, respectively.
Withdrawal Rates	See Table III.
Disability Rates	See Table IV.
Decrement Timing	Middle of year decrements, with 100% retirement occurring at beginning of year.
Surviving Spouse Benefit	It is assumed that 80% of males and 80% of females have an eligible spouse for purposes of death-in-service benefits, and that males are 3 years older than their spouse.
Administrative Expenses	Actual administrative expenses during the measurement period are recognized in expense.

COLA Adjustment	Members hired prior to July 1, 2017: 3.00% (actual COLA). Members hired on/after July 1, 2017: 2.25% (long-term estimate of provision of 100% of CPI-U capped at 4.00%).
Asset Method	Fair market value.
Actuarial Cost Method	Entry Age Normal cost method.
Measurement Date	June 30, 2023
Measurement Period	June 30, 2022 to June 30, 2023
Valuation Date	December 31, 2022
Census Data	As of December 31, 2022.

Changes in Financial Accounting Methods/Assumptions Since the Prior Year

Method Changes

There have been no method changes in the financial accounting valuation since the prior year.

Assumption Changes

The financial accounting valuation reflects the following assumption changes:

- The municipal bond rate increased from 3.54% to 3.65%

Actuarial Assumptions and Methods

Table I

Salary Increase Assumption

Pay Increase Assumption

Service Index	Merit & Seniority	Base (Economy)	Increase Next Year
0-1	4.50%	2.75%	7.25%
1-2	4.00%	2.75%	6.75%
2-3	4.00%	2.75%	6.75%
3-4	4.00%	2.75%	6.75%
4-5	4.00%	2.75%	6.75%
5-6	4.00%	2.75%	6.75%
6-7	4.00%	2.75%	6.75%
7-8	3.50%	2.75%	6.25%
8-9	3.50%	2.75%	6.25%
9-10	3.50%	2.75%	6.25%
10-11	3.00%	2.75%	5.75%
11-12	3.00%	2.75%	5.75%
12-13	2.50%	2.75%	5.25%
13-14	2.50%	2.75%	5.25%
14-15	2.00%	2.75%	4.75%
15-16	2.00%	2.75%	4.75%
16-17	1.50%	2.75%	4.25%
17-18	1.50%	2.75%	4.25%
18-19	1.50%	2.75%	4.25%
19-20	1.00%	2.75%	3.75%
20-21	1.00%	2.75%	3.75%
21-22	0.50%	2.75%	3.25%
22-23	0.50%	2.75%	3.25%
23-24	0.50%	2.75%	3.25%
24-25	0.50%	2.75%	3.25%
25+	0.00%	2.75%	2.75%

Table II

Retirement Rates

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

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

The age column index does not apply to the service-based retirements. In ERFC 2001 Tier 1, an individual can retire at 30 years of service regardless of age. In ERFC 2001 Tier 2, an individual would be able to retire at FSSA with 5 years of service or when the sum of age and service is greater than or equal to 90. FSSA is assumed to be age 67 for members hired on/after July 1, 2017

Table III

Withdrawal Rates

Service	% of Active Participants Withdrawing	
	Males	Females
0 - 1	17%	16%
1 - 2	12%	14%
2 - 3	12%	13%
3 - 4	11%	12%
4 - 5	11%	12%
5 - 6	9%	11%
6 - 7	7%	10%
7 - 8	7%	10%
8 - 9	7%	8%
9 - 10	6%	8%
10 - 11	5%	7%
11 - 12	4%	7%
12 - 13	4%	6%
13 - 14	3%	5%
14 - 15	3%	5%
15 - 16	3%	4%
16 - 17	2%	3%
17 - 18	2%	2%
18 - 19	2%	2%
19 - 20	2%	2%
20 - 21	2%	2%
21 - 22	2%	2%
22 - 23	2%	2%
23 - 24	2%	2%
24 - 25	2%	2%

In addition, 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 above by 10%. Forfeiture rates do not apply to individuals who are eligible for retirement at time of termination.

Table IV
Sample Rates of Separation From Active Employment

Ages	Disability			
	Ordinary		Duty	
	Men	Women	Men	Women
20	0.0117%	0.0048%	0.0029%	0.0012%
21	0.0117%	0.0048%	0.0029%	0.0012%
22	0.0117%	0.0048%	0.0029%	0.0012%
23	0.0142%	0.0074%	0.0036%	0.0018%
24	0.0149%	0.0081%	0.0037%	0.0020%
25	0.0146%	0.0082%	0.0036%	0.0020%
26	0.0142%	0.0082%	0.0035%	0.0021%
27	0.0140%	0.0086%	0.0035%	0.0022%
28	0.0142%	0.0094%	0.0036%	0.0024%
29	0.0149%	0.0106%	0.0037%	0.0027%
30	0.0158%	0.0122%	0.0040%	0.0031%
31	0.0171%	0.0140%	0.0043%	0.0035%
32	0.0186%	0.0158%	0.0046%	0.0040%
33	0.0202%	0.0178%	0.0050%	0.0044%
34	0.0218%	0.0196%	0.0054%	0.0049%
35	0.0234%	0.0214%	0.0059%	0.0054%
36	0.0252%	0.0232%	0.0063%	0.0058%
37	0.0271%	0.0250%	0.0068%	0.0062%
38	0.0291%	0.0268%	0.0073%	0.0067%
39	0.0314%	0.0287%	0.0078%	0.0072%
40	0.0339%	0.0308%	0.0085%	0.0077%
41	0.0367%	0.0331%	0.0092%	0.0083%
42	0.0399%	0.0357%	0.0100%	0.0089%
43	0.0435%	0.0386%	0.0109%	0.0097%
44	0.0475%	0.0419%	0.0119%	0.0105%
45	0.0520%	0.0456%	0.0130%	0.0114%
46	0.0570%	0.0498%	0.0143%	0.0124%
47	0.0626%	0.0545%	0.0157%	0.0136%
48	0.0689%	0.0598%	0.0172%	0.0149%
49	0.0760%	0.0658%	0.0190%	0.0164%
50	0.0842%	0.0726%	0.0210%	0.0181%
55	0.1469%	0.1228%	0.0367%	0.0307%
60	0.2447%	0.1770%	0.0612%	0.0443%

Actuarial Assumptions and Methods

Discussion of Actuarial Assumptions and Methods

ERFC selected the economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 68. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience.

Calculation of Normal Costs and Liabilities

The method used to calculate the service cost and projected benefit obligation for determining pension expense is the entry age normal cost method. Under this cost method, the actuarial accrued liability is based on a prorated portion of the present value of all benefits earned to date over expected future working life time as defined by GASB. The proration is determined so that the cost with respect to service accrued from date of hire is recognized as a level percentage of pay each year. The Normal Cost is equal to the prorated cost for the year of the valuation.

Accounting Information Under GASB 68

Benefit obligations and expense/(income) are calculated under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 68.

The total pension liability represents the actuarial present value of benefits based on the entry age normal cost method as of the measurement date. The service cost represents the actuarial present value of benefits that are attributed to the 2023 fiscal year, reflecting the effect of assumed future pay increases.

The pension expense is the annual amount to be recognized in the income statement as the cost of pension benefits for this plan for the period ending June 30, 2023.

Plan Provisions

Eligibility to Participate

ERFC Members Hired After July 1, 1988 but Before July 1, 2001

Contributions

Effective July 1, 2012, members contribute 3% of their salaries. Interest credits are 5% annually through June 30, 2017, and 4% 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.

Eligibility for Retirement

Normal Retirement

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

Early Retirement

A member with 25 years of service but younger than age 55 may retire after age 45. A member with less than 25 years of service and younger than age 65 may retire after age 55.

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.

Normal Retirement Benefit

For payment periods during the retired member's lifetime 103% 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 of 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 103% times 1.00 percent of the FAC multiplied by years of credited service.

Early Retirement Benefit

Accrued benefit to early retirement date payable at normal retirement date reduced according to the following schedule:

After 25 years of service: Service Retirement amount reduced to reflect retirement age younger than age 55.

After 5 years of service, but before 25 years of service: For payment periods during the retired member's lifetime, the Service Retirement amount payable at age 65 reduced to reflect 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 retirement age younger than age 65.

Disability Benefit

The amount is 103% 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 the member would have reached the service retirement date. The minimum pension payable is 2.5 percent of FAC.

Vested Deferred Benefit
Eligibility

An inactive member with 5 or more years of service will be entitled to a pension with payments beginning at age 55, provided she/he does not withdraw accumulated member contributions.

Amount

Calculated in the same manner as early retirement benefits.

Final Average Compensation (FAC)

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

Forms of Payment

Normal Form

The assumed normal form of benefit is the straight life form.

Optional Forms

Option A: 100% Joint and Survivor benefit. Benefit is 85% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 94% of the straight life amount.

Option B: 50% Joint and Survivor benefit. Benefit is 91% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 97% of the straight life amount.

Option C: 10 years Certain and Life. Benefit is 96% of the straight life amount.

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.

Post-Retirement Increases

The amount of the monthly benefit is adjusted each March 31st, by 3% compounded annually, beginning with the March 31st which is more than three full months after the member's effective retirement date. Pensions of members that retire in the immediately preceding calendar year are increased by 1.489% (one-half a year's increase).

Spouse's Preretirement Death Benefit

Statutory Death Benefits

Eligibility

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.

Amount

If the member is eligible for a service or reduced service retirement then an eligible named beneficiary will receive such benefits reduced based upon an Option A (in the case of a spouse or an ex-spouse subject to a DRO) or Option B (in case of another eligible beneficiary) election. If not, the eligible named beneficiary will receive an amount equal to 103% times a lifetime pension equal of 0.25% of the FAC multiplied by years of credited service, and also reduced in connection with an Option A or Option B election. Credited service shall be increased by the time period from the date of death to the date when the member would have reached service retirement with a minimum of 10 years of service used, provided the death was service-connected. If a named beneficiary is not eligible for either of these types of benefits, the named beneficiary will receive a refund of the member's accumulated contributions.

Alternative Benefits Available to Members with Some Service Before July 1, 1988

Service Retirement: Alternate Amount
After Full Social Security Age

A member with service before 7/1/1988 may elect, at time of retirement, to receive an alternate benefit amount for payment periods after full Social Security age. The Alternative Guarantee amount is the amount that would have been received after the individual reached eligibility for full Social Security benefits under the Old Plan (pre – July 1, 1988) formulas. The amount is 103% of the total of:

- (i) the amount payable under June 30, 1987 benefit provisions,
- (ii) plus, if the retiring member is younger than full Social Security age 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 one half of one percent for each of the first 60 such months and four-tenths of one percent for each of the next 60 such months, if any.

Reduced Service Retirement: Alternate
Amount with 25 Years or more Years of
Service

By election at time of retirement, such a member may elect to receive 103% of the following combination of benefits:

- (i) 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;
- (ii) From age 55 to 65, 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
- (iii) From age 65 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.

Plan Changes Since the Prior Year

The financial accounting valuation does not reflect any plan changes.

Eligibility to Participate	Members Hired On/After July 1, 2001 but Before July 1, 2017 (ERFC 2001 Tier 1)
Contributions	Effective July 1, 2012, members contribute 3% of their salaries. Interest credits are 5% annually through June 30, 2017, and 4% 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.
Eligibility for Retirement Normal Retirement	A member may retire at age 60 with 5 or more years of credited service, or after 30 years of credited service regardless of age.
Normal Retirement Benefit	The amount is a lifetime pension equal to 0.8% (eight-tenths of one 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.
Vested Deferred Benefit Eligibility	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 age 60, provided accumulated contributions are left on deposit with the Plan.
Amount	The amount is a lifetime pension equal to 0.8% (eight-tenths of one 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
Final Average Compensation (FAC)	A member's Final Average Compensation is the average of the 3 highest years of salary during eligible employment.
Forms of Payment Normal Form	The assumed normal form of benefit is the straight life form.
Optional Forms	Option A: 100% Joint and Survivor benefit. Benefit is 85% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 94% of the straight life amount. Option B: 50% Joint and Survivor benefit. Benefit is 91% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 97% of the straight life amount.

Option C: 10 years Certain and Life. Benefit is 96% of the straight life amount.

Post-Retirement Increases

The amount of the monthly benefit is adjusted each March 31st, by 3% compounded annually, beginning with the March 31st which is more than three full months after the member's effective retirement date. Pensions of members that retire in the immediately preceding calendar year are increased by 1.489% (one-half a year's increase).

Spouse's Preretirement Death Benefit
Statutory Death Benefits
Eligibility

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..

Amount

The amount is a lifetime pension equal to 0.8% (eight-tenths of one 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 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 age 60 on the date of death in the following manner:

- a. 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 not to exceed the difference between the member's credited service at death and 30 years).

Plan Changes Since the Prior Year

The financial accounting valuation does not reflect any plan changes.

Eligibility to Participate	Members Hired On/After July 1, 2017 (ERFC 2001 Tier 2)
Contributions	Members contribute 3% of their salaries. Interest credits are 4% annually. If a member leaves covered employment before becoming eligible to retire, accumulated contributions are returned upon request.
Eligibility for Retirement Normal Retirement	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").
Normal Retirement Benefit	The amount is a lifetime pension equal to 0.8% (eight-tenths of one 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.
Vested Deferred Benefit Eligibility	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.
Amount	The amount is a lifetime pension equal to 0.8% (eight-tenths of one 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.
Final Average Compensation (FAC)	A member's Final Average Compensation is the average of the 5 highest years of salary during eligible employment.
Forms of Payment Normal Form	The assumed normal form of benefit is the straight life form.
Optional Forms	Before the effective retirement date, a retiring member may elect one of the following options: Option A: 100% Joint and Survivor benefit. Benefit is 85% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 94% of the straight life amount. Option B: 50% Joint and Survivor benefit. Benefit is 91% of the straight life amount adjusted for the difference in

age between the retiree and beneficiary. The maximum benefit is 97% of the straight life amount.

Option C: 10 years Certain and Life. Benefit is 96% of the straight life amount

Post-Retirement Increases

The amount of the monthly benefit is adjusted each March 31st, by 100% of the Consumer Price Index (CPI-U) (with a cap of 4%) compounded annually, beginning with the March 31st which is more than three full months after the member's effective retirement date. Pensions of members that retire in the immediately preceding calendar year are increased by one-half a year's increase.

Spouse's Preretirement Death Benefit

Statutory Death Benefits

Eligibility

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.

Amount

The amount is a lifetime pension equal to 0.8% (eight-tenths of one 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 Option A (in the case of a spouse or an ex-spouse subject to a 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:

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").

Plan Changes Since the Prior Year

The financial accounting valuation does not reflect any plan changes.