

Fairfax County Employees' Retirement System

**Actuarial Valuation
as of June 30, 2023**

**Produced by Cheiron
November 2023**

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November 3, 2023

Board of Trustees
Fairfax County Employees' Retirement System
12015 Route 50, Suite 350
Fairfax, Virginia 22033

**Re: *Fairfax County Employees' Retirement System
Actuarial Valuation as of June 30, 2023***

Dear Members of the Board:

At your request, we have conducted our annual actuarial valuation of the Fairfax County Employees' Retirement System as of June 30, 2023. The results of the valuation are contained in this report. The purpose of this report is to present the annual actuarial valuation of the Fairfax County Employees' Retirement System. This report is for the use of the Fairfax County Employees' Retirement System Board of Trustees and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions on which our findings are based. Those comments are the basis for our certification that this report is complete to the best of our knowledge and belief. The results of this report are only applicable to the employer contribution for Fiscal Year 2025 and rely on future Plan experience conforming to the underlying assumptions. To the extent that actual Plan experience deviates from the underlying assumptions, the results would vary accordingly.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: Plan experience differing from that anticipated by the assumptions, changes in assumptions, and changes in Plan provisions or applicable law.

In preparing our report, we relied on information (some oral and some written) supplied by the Retirement System. This information includes, but is not limited to, Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23.

This report was prepared exclusively for the Fairfax County Employees' Retirement System for the purpose described herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Board of Trustees
Fairfax County Employees' Retirement System
November 3, 2023

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Sincerely,
Cheiron



Fiona E. Liston, FSA, EA, MAAA
Principal Consulting Actuary



Coralie A. Taylor, FSA, EA, MAAA, FCA
Consulting Actuary

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

FOREWORD

Cheiron has performed the actuarial valuation of the Fairfax County Employees' Retirement System as of June 30, 2023. The purpose of this report is to:

- 1) **Measure and disclose**, as of the valuation date, the financial condition of the System,
- 2) **Indicate trends** in the financial progress of the System,
- 3) **Determine the contribution rate** to be paid by the County for Fiscal Year 2025, and
- 4) **Provide specific information** and documentation required for the System's financial reporting.

An actuarial valuation establishes and analyzes system assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the system's investment performance, as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our findings and disclosing important trends experienced by the System in recent years.

Section II presents risk factors to consider in the future outlook of the Plan.

Section III contains details on various asset measures, together with pertinent performance measurements.

Section IV shows similar information on the System's liabilities, measured for actuarial, accounting, and governmental reporting purposes.

Section V develops the County contribution rate, determined using actuarial techniques.

Section VI includes the required items to be included in the System's Annual Comprehensive Financial Report (ACFR).

The appendices to this report contain a summary of the System's membership at the valuation date, a summary of the major provisions of the System, and the actuarial methods and assumptions used in the valuations.

In preparing our report, we relied on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23.

The actuarial assumptions reflect our understanding of the likely future experience of the System, and the assumptions taken individually represent our best estimate for the future experience of the System. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the System could vary from our results.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

General Comments

The employer's annual contribution to this system is determined by using an amortization layer method. Under this funding approach, the employer's contribution rate consists of the normal cost rate plus expense rate plus layered amortization Unfunded Actuarial Liability (UAL) bases. The UAL rates are summarized in Section V. The normal cost rate and actuarial accrued liability will be measured using the entry age funding method. The UAL is amortized over a series of fixed 15-year periods as a level percentage of payroll. Future gains and losses and changes in actuarial assumptions will be amortized in layers over separate 15-year periods.

The employer contribution rate for Fiscal Year (FY) 2025, as calculated under this method, increased from 30.07% for FY 2024 to 32.58% of payroll.

This valuation contains information reported in the June 30, 2023 Annual Comprehensive Financial Report (ACFR) of the System. Additional information regarding GASB Statement No. 67 can be found in a separate report.

Trends

The System underperformed the investment assumption during the fiscal year ending in 2023, causing an actuarial loss on the asset side of the System. The actual return on a market value basis was -2.54%. On an actuarial value basis, the assets returned 2.07% compared with an assumed rate of return of 6.75%. The actuarial loss recognized for funding purposes was \$236.7 million.

The measurement of liabilities produced a loss this year in the amount of \$32 million. This loss was due to experience compared to our assumptions about salary increases, retirement behavior, COLA, and death, etc. Specific components of the loss include:

- The average salary increase was 3.2% for active County participants and 4.5% for active Schools participants who were in both the June 30, 2022 and June 30, 2023 valuations. This was less than expected based on the actuarial assumption, creating a liability gain of \$29 million.
- The valuation assumed a 2.10% cost-of-living adjustment in 2022 for benefits in pay status. The actual CPI-based COLA was 3.70% last year, creating a liability loss of \$62 million.
- An annual component of liability loss is the delayed recognition of new hires throughout the year. This does not contribute to an increase in the System's unfunded liability because both the member and employer contribute from the date of hire. However, when we look only at the liability side, they are a component of the annual liability loss. This accounts for a \$9 million loss this year.
- Finally, there was a \$10 million liability gain component that is made up of various other causes such as members terminating, retiring, dying, or becoming disabled in a way contrary to the assumption.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

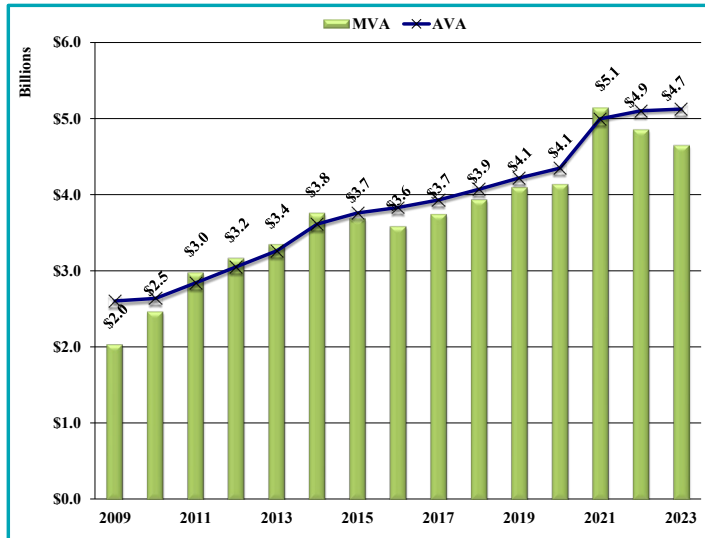
The combination of liability and investment experience, together with County plus member contributions over the last year, led to the System's funded ratio (actuarial value of assets over actuarial accrued liability) decreasing from 75.8% at June 30, 2022 to 73.7% at June 30, 2023.

It is important to take a step back from the latest results and view them in the context of the System's recent history. On the next three pages, we present a series of charts that display key factors in the valuations over the last 15 years. After the historical review, we present a few projection graphs, showing the possible condition of the System over the next 15 years under various market return scenarios.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

Growth in Assets

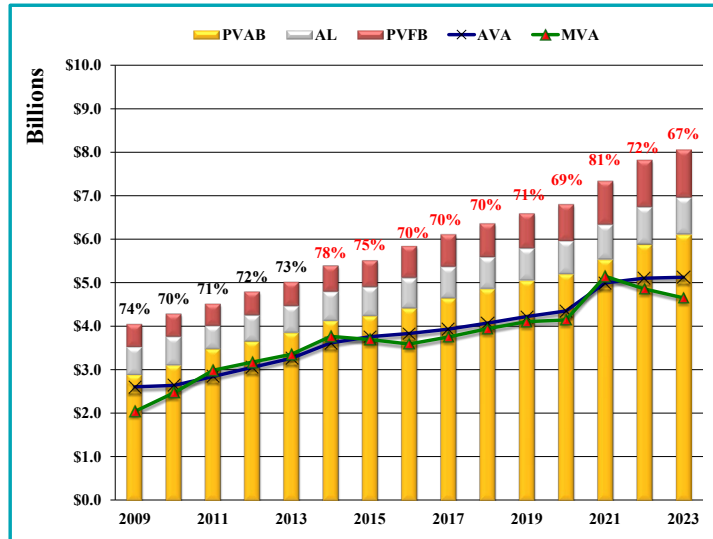


There was a decrease in the market value of assets (MVA) (amount in billions shown above bars) over last year due to a return of -2.54%. The actuarial value of assets (AVA) increased due to the continued recognition of past asset gains. The System recognized only a portion of the asset loss this year, and there remains \$473 million in unrecognized losses that will be phased in over the next few years.

Over the period July 1, 2009 to June 30, 2023, the System's assets returned approximately 8.38% per year measured at actuarial value, compared to the valuation assumption of 6.75% per year.

Assets and Liabilities

The three colored bars represent the three different measures of liability mentioned in this report. The amount represented by the top of the red bars, the present value of future benefits (PVFB), is the amount needed to provide all benefits for the current participants and their beneficiaries. For funding purposes, the target amount is represented by the top of the gray bar. Through the 2013 valuation, we compare the actuarial value of assets to this measure of liability in developing the funded percent (black numbers). Starting in 2014, the comparison uses the market value of assets (red numbers). These are the percentages shown in the graph labels.

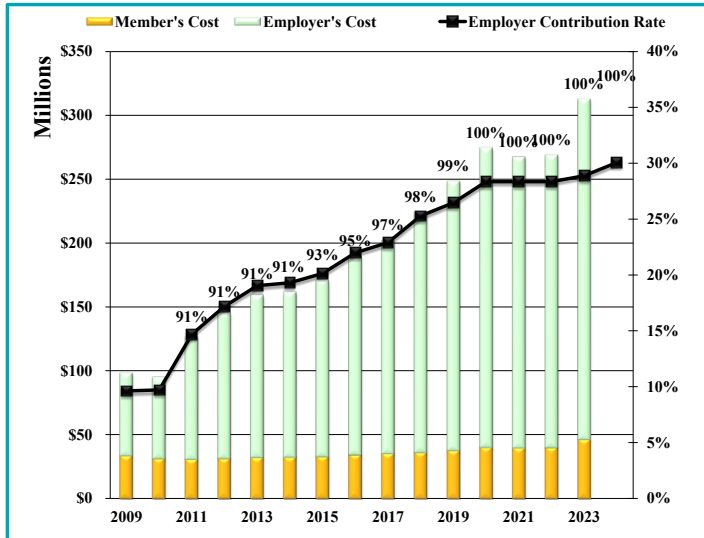


**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

Contribution Rates

The stacked bars in this graph show the contributions made by both the County and the members (left-hand scale). The black line shows the County contribution rate as a percent of payroll (right-hand scale).

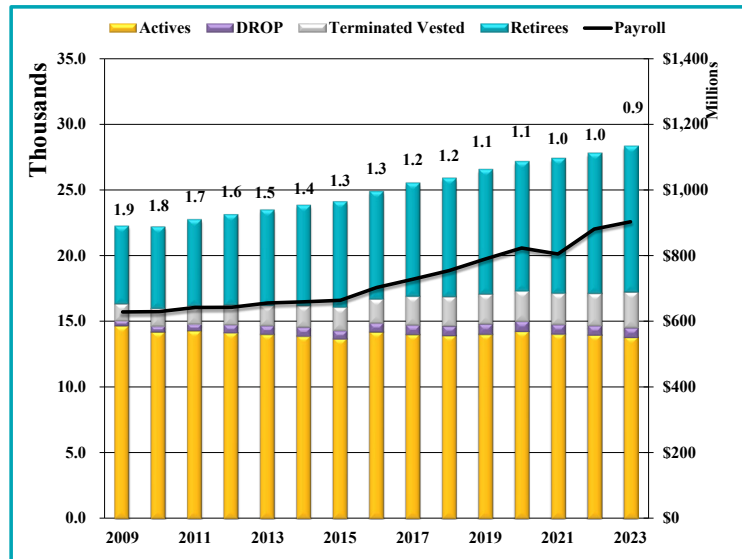


The member contribution rate is set by the County Ordinance. The County contribution rate is set by the actuarial process, as constrained by the corridor method. Note there is a lag in the rate shown. For example, the 2023 value is the rate prepared by the 2021 valuation and implemented for the period June 30, 2022 to June 30, 2023. Starting with FY 2011, the County contribution has been based on a corridor floor greater than 90% reaching 100% in 2019. The data labels show the change in this metric.

Participant Trends

As with many systems in this country, there has been a steady growth in the number of retired members as the System has matured. The active-to-inactive ratio has decreased from 1.9 actives to each inactive in 2009 to 0.9 actives for each inactive today. While this would be an alarming trend in a pay-as-you-go system, the pool of invested assets has been established in anticipation of this development.

The chart also shows the number of DROP participants. Neither County nor member contributions are made on their behalf, which leads to a slightly lower growth in effective covered payroll for this system.

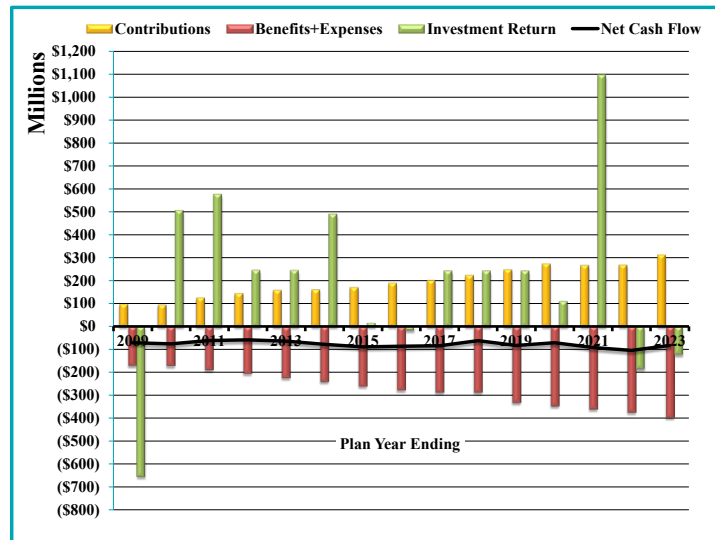


FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023

SECTION I - BOARD SUMMARY

Cash Flow

The graph shows the annual cash flows into and out of the System. The graph shows the magnitude of the investment returns on the market value (green bars) compared to the contributions (yellow bars). The net cash flow (line) is comparing the contributions to benefits and expenses (red bar). Negative cash flow is expected for a mature system such as this one. The implications of a system with negative cash flow are that the impact of market fluctuations can be more severe. This is because, as assets are being depleted to pay benefits in down markets, less principal is available to be reinvested during periods of favorable returns.



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

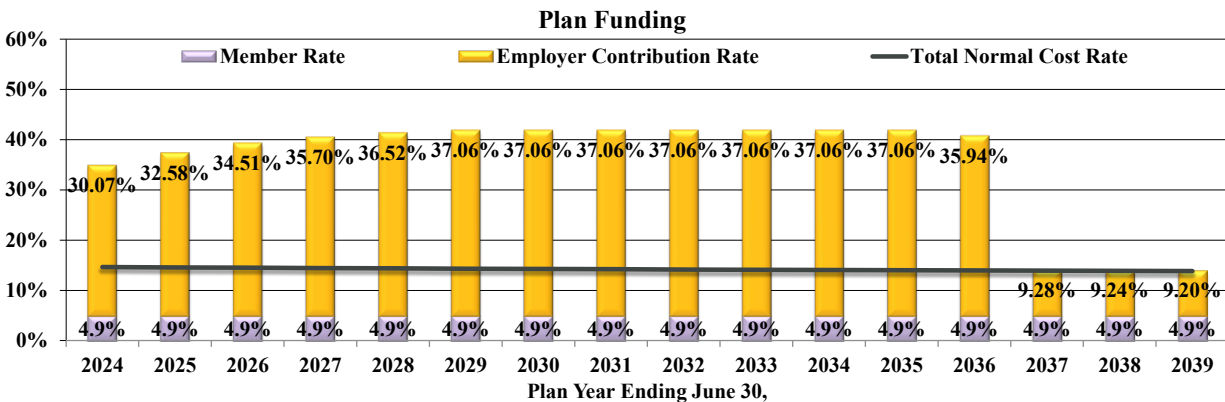
Future Outlook

Base-line Projections

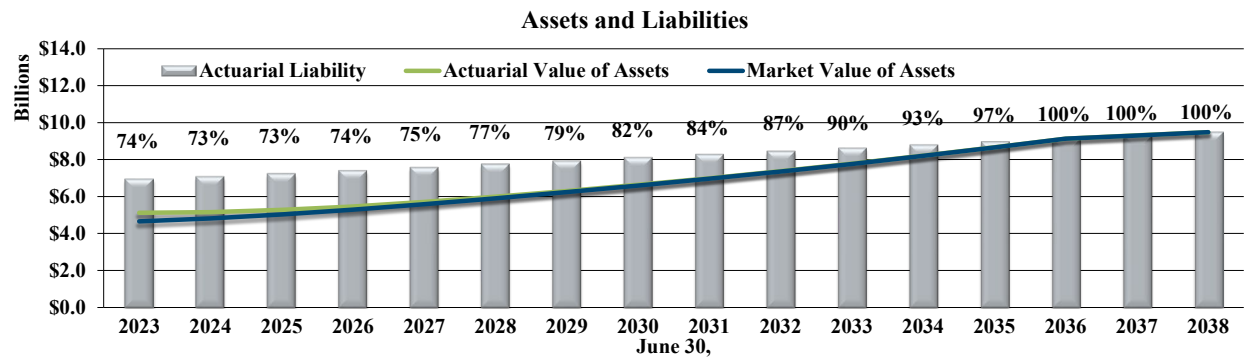
The two graphs below show the expected progress of the System over the next 15 years, assuming the System's assets earn 6.75% on their *market value*.

Contributions are calculated using a full actuarial calculation. The County does not intend to reduce the contribution rate until the System is 100% funded. Once the System is 100% funded, the contribution rate will drop as returns keep the funding above 100%.

The graph entitled "Plan Funding" illustrates future County and member contribution rates.



The "Assets and Liabilities" graph shows the projected funding status over the next 15 years. The funded ratio based on the actuarial value of assets gradually increases for the entire projection period ultimately reaching 100% funded as of 2036.



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

The future funding status of this System will be influenced by the investment earnings. The prior projection assumed the System would earn 6.75% each and every year, which is extremely unlikely.

In the projections that follow, we show the risk to the System under volatile markets. The System has averaged a 5.88% return per year since 2008. In the following charts, we show results assuming returns over the next 15 years average 4.25%, 6.75%, and 9.25%. Different patterns of returns will produce different results from those shown here.

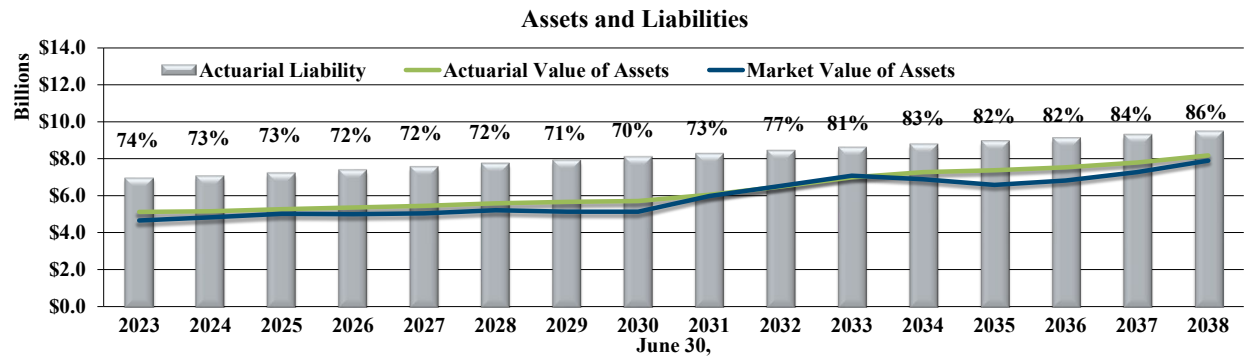
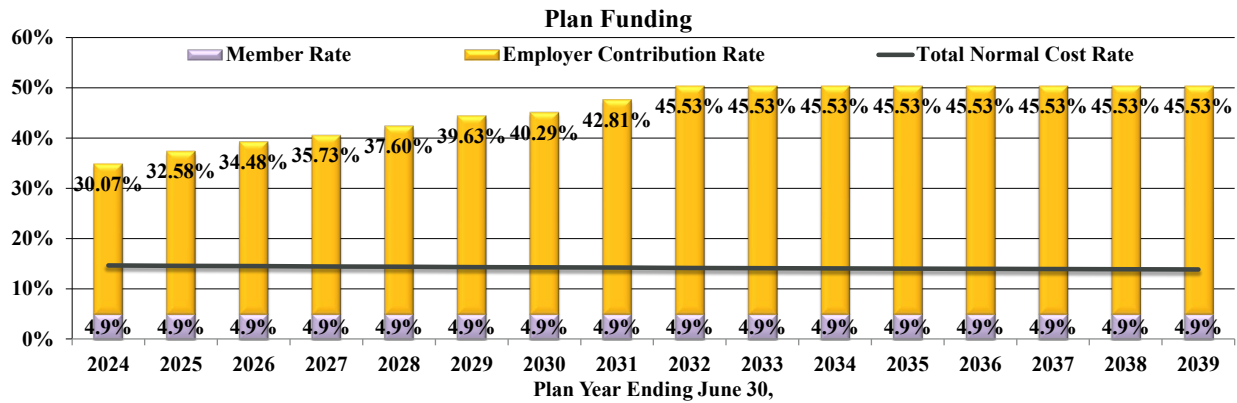
Table I-1			
Fiscal Year Ending June 30,	Average 4.25%	Average 6.75%	Average 9.25%
2024	6.92%	1.59%	(6.60)%
2025	6.30	6.42	3.79
2026	0.92	16.97	17.40
2027	2.23	29.26	31.81
2028	4.41	18.67	(9.73)
2029	(0.94)	4.86	9.72
2030	0.73	10.28	15.06
2031	16.84	3.55	(13.19)
2032	8.75	14.85	14.44
2033	8.50	(1.19)	14.08
2034	(2.86)	1.30	30.03
2035	(4.50)	(9.12)	24.17
2036	3.45	3.90	3.20
2037	6.52	(1.34)	6.62
2038	8.42	7.08	9.47
Average	4.25%	6.75%	9.25%

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

Alternative Projection – with average return of 4.25% in the period

Under this scenario, the County contribution rate increases from about 30% to about 46% of payroll. The System's funding drops to as low as 70% on an actuarial value basis, even with the ramping up of contributions.

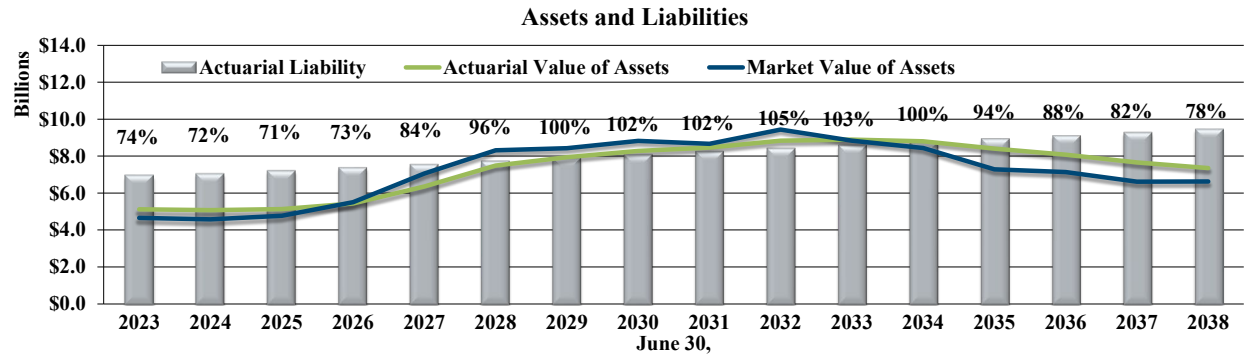
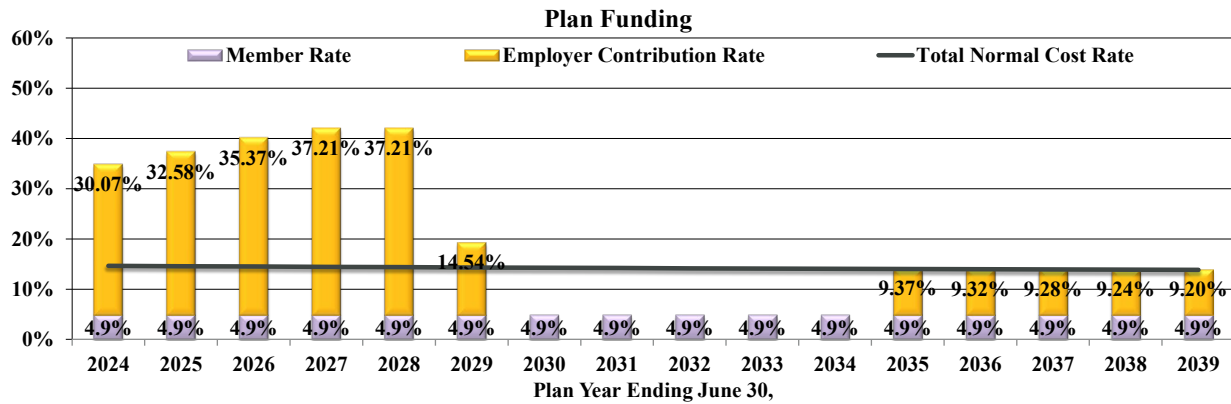


**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

Alternative Projection – with average return of 6.75% in the period

Under this scenario, in which the System is assumed to experience lower than expected returns for the first two years followed by higher-than-average returns in the next few years, the County contribution rate increases over the next few years as the asset losses are phased in and the funded ratio remains below 100%. After that time, the contribution drops dramatically as returns continue to push the funded ratio well above 100% on an actuarial value basis. The funded percent again decreases with the lower-than-average return to 78% starting after 2032.

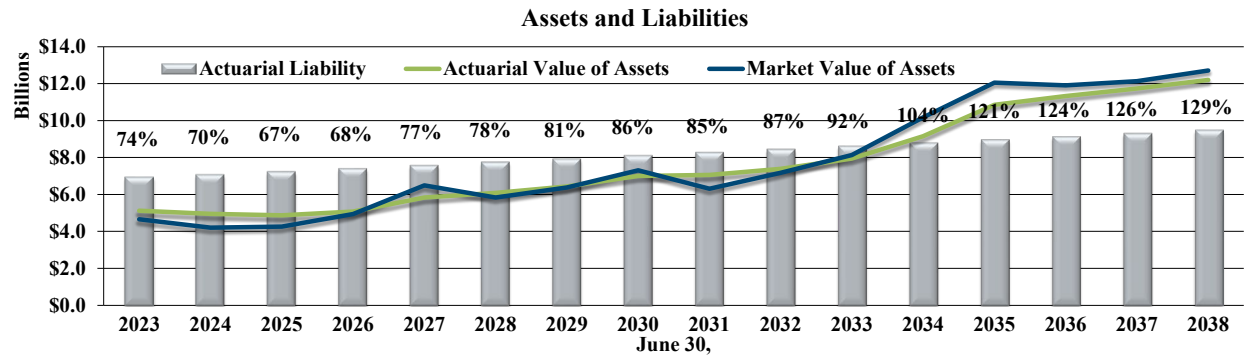
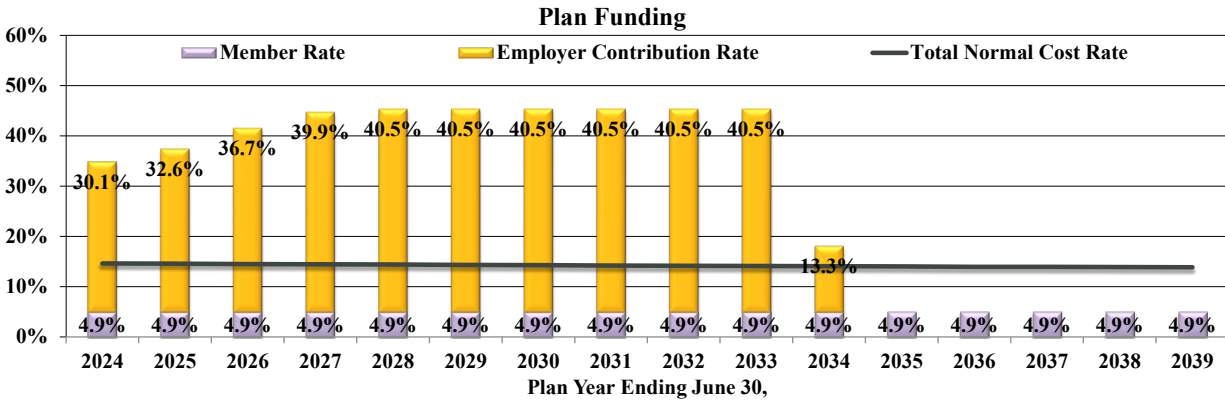


**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

Alternative Projection – with average return of 9.25% in the period

Under this scenario, in which the System is assumed to face lower returns in the first two years but significantly higher returns thereafter, the County contribution rate increases while phasing in the poor asset returns, holds at 40.5% and then drops off once the System reaches 100% funding on an actuarial value basis.



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION I - BOARD SUMMARY

Table I-2 Summary of Principal Plan Results			
Valuation as of:	June 30, 2022	June 30, 2023	% Chg.
<u>Participant Counts</u>			
Actives (excluding DROP)	13,943	13,783	(1.1)%
DROPs	734	742	1.1%
Terminated Vesteds	2,475	2,735	10.5%
In Pay Status	<u>10,641</u>	<u>11,065</u>	4.0%
Total	27,793	28,325	1.9%
Annual Salaries of Active Members	\$ 880,931,034	\$ 903,108,220	2.5%
Annual Retirement Allowances for Retired Members and Beneficiaries (Base amount only – not supplements)	\$ 303,608,615	\$ 326,426,748	7.5%
<u>Assets and Liabilities</u>			
Actuarial Liability (AL)	\$ 6,736,635,842	\$ 6,953,793,569	3.2%
Assets for Valuation Purposes (AVA)	<u>5,103,373,910</u>	<u>5,125,212,112</u>	0.4%
Unfunded Actuarial Liability	\$ 1,633,261,932	\$ 1,828,581,457	12.0%
Actuarial Value Funding Ratio (AVA / AL)	75.8%	73.7%	
Market Value Funding Ratio (MVA / AL)	72.1%	66.9%	
Present Value of Accrued Benefits	\$ 5,881,833,442	\$ 6,109,380,896	3.9%
Market Value of Assets (MVA)	<u>4,857,119,591</u>	<u>4,651,836,206</u>	(4.2)%
Unfunded Accrued Liability (not less than \$0)	\$ 1,024,713,851	\$ 1,457,544,690	42.2%
Accrued Benefit Funding Ratio	82.6%	76.1%	
<u>Contributions as a Percentage of Payroll</u>			
	Fiscal Year 2024	Fiscal Year 2025	
Employer Normal Cost	9.76%	9.63%	
UAL Amortization	20.01%	22.65%	
Administrative Expense	<u>0.30%</u>	<u>0.30%</u>	
County Rate	30.07%	32.58%	

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION II - IDENTIFICATION AND ASSESSMENT OF RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the System, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While we believe it is unlikely that the System by itself would become unaffordable, the contributions needed to support the System may differ significantly from expectations. While there are a number of factors that could lead to contribution amounts deviating from expectations, we believe the primary sources are:

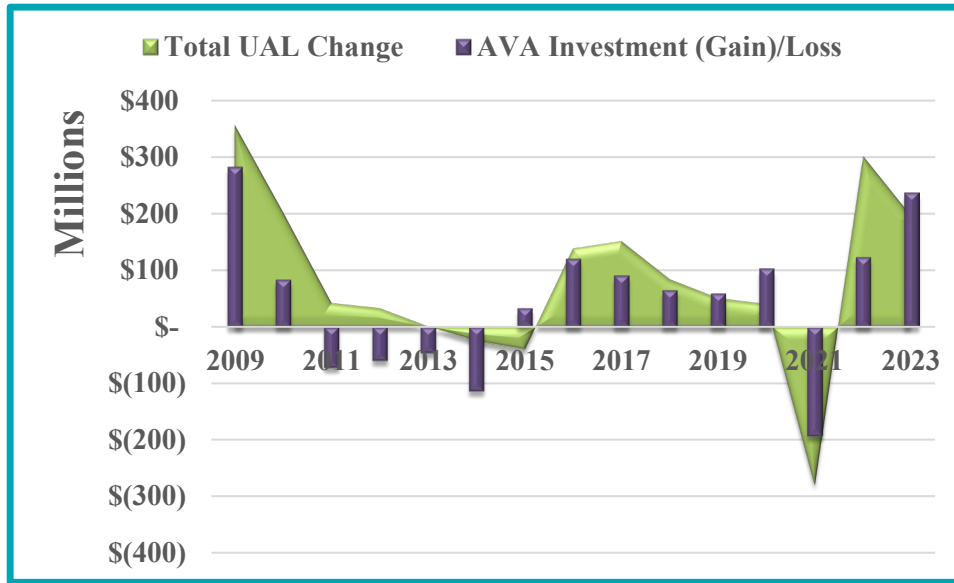
- Investment risk,
- Interest rate risk,
- Longevity and other demographic risks,
- Contribution risk, and
- Assumption change risk.

Other risks that we have not identified may also turn out to be important.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION II - IDENTIFICATION AND ASSESSMENT OF RISK

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential volatility of future investment returns is determined by the System's asset allocation, and the affordability of the investment risk is determined by the amount of assets invested relative to the size of the plan sponsor or other contribution base.

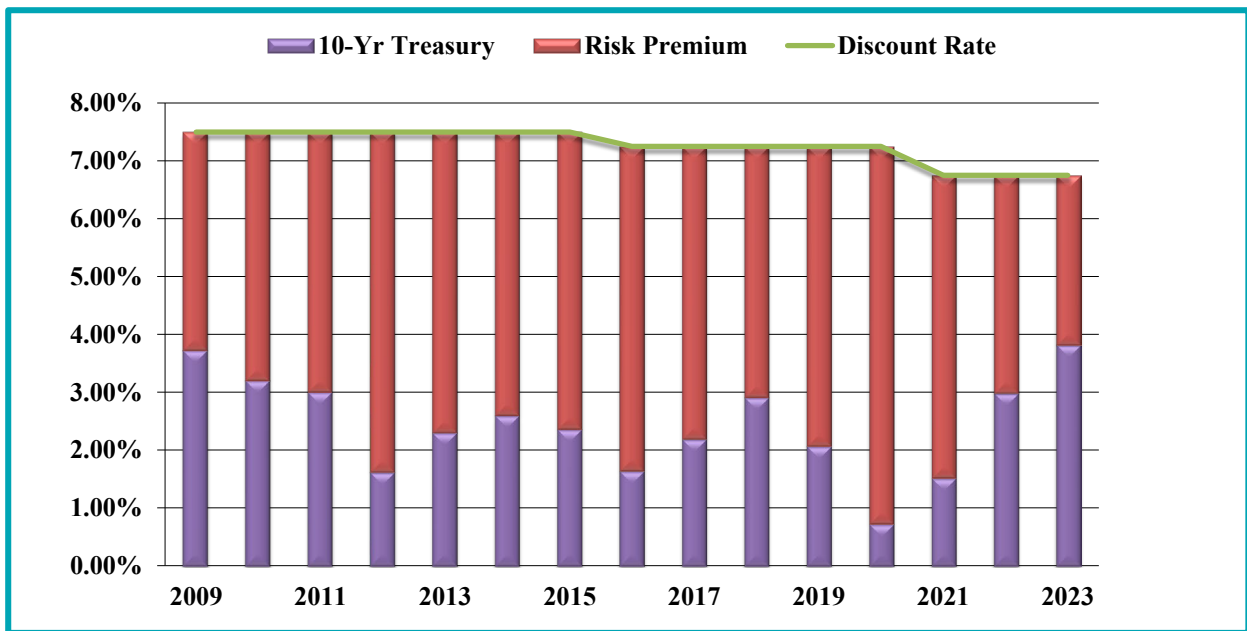


The graph above shows the impact of investment gains and losses on the smoothed Actuarial Value of Assets over the last 15 years compared to the System's total change in UAL.

FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023

SECTION II - IDENTIFICATION AND ASSESSMENT OF RISK

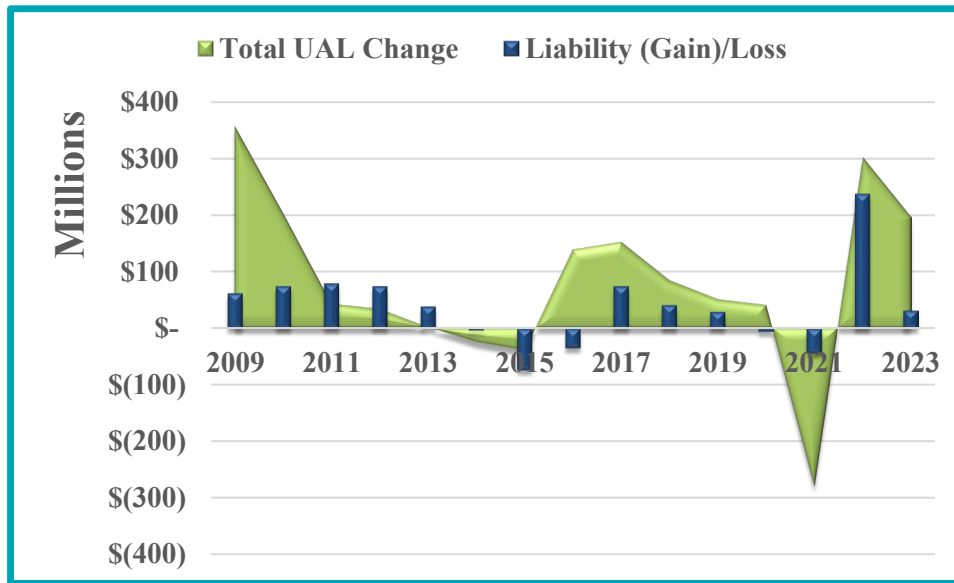
Interest rate risk is the potential for interest rates to be different than expected. For public plans, short-term fluctuations in interest rates have little or no effect as the plan's liability is usually measured based on the expected return on assets. Longer-term trends in interest rates, however, can have a powerful effect. The chart below shows the yield on a 10-year Treasury security compared to the System's assumed rate of return. The difference is a simple measure of the amount of investment risk taken. As interest rates declined on average over the period, plans faced a choice: maintain the same level of risk and reduce the expected rate of return, maintain the same expected rate of return and take on more investment risk, or some combination of the two strategies. This trend may be reversing as the interest rates have increased since a low in 2020 with the 2023 risk premium being the lowest it has been over the last 15 years.



FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023

SECTION II - IDENTIFICATION AND ASSESSMENT OF RISK

Longevity and other demographic risks are the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time and are often dwarfed by other changes, particularly those due to investment returns. The following graph shows the demographic gains and losses over the last 15 years compared to the total change in the UAL for each year.



Contribution risk is the potential for actual future contributions to deviate from expected future contributions. There are different sources of contribution risk ranging from the sponsor choosing to not make contributions in accordance with the funding policy to material changes in the contribution base (e.g., covered employees, covered payroll, sponsor revenue) that affect the amount of contributions the System can collect. Historically, the employer has made contributions in accordance with its funding policy.

Assumption change risk is the potential for the environment to change such that future valuation assumptions are different than the current assumptions. Assumption change risk is an extension of the other risks identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in environment when the current assumption is no longer reasonable.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION II - IDENTIFICATION AND ASSESSMENT OF RISK

Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of this system compared to other plans and how the maturity has changed over time.

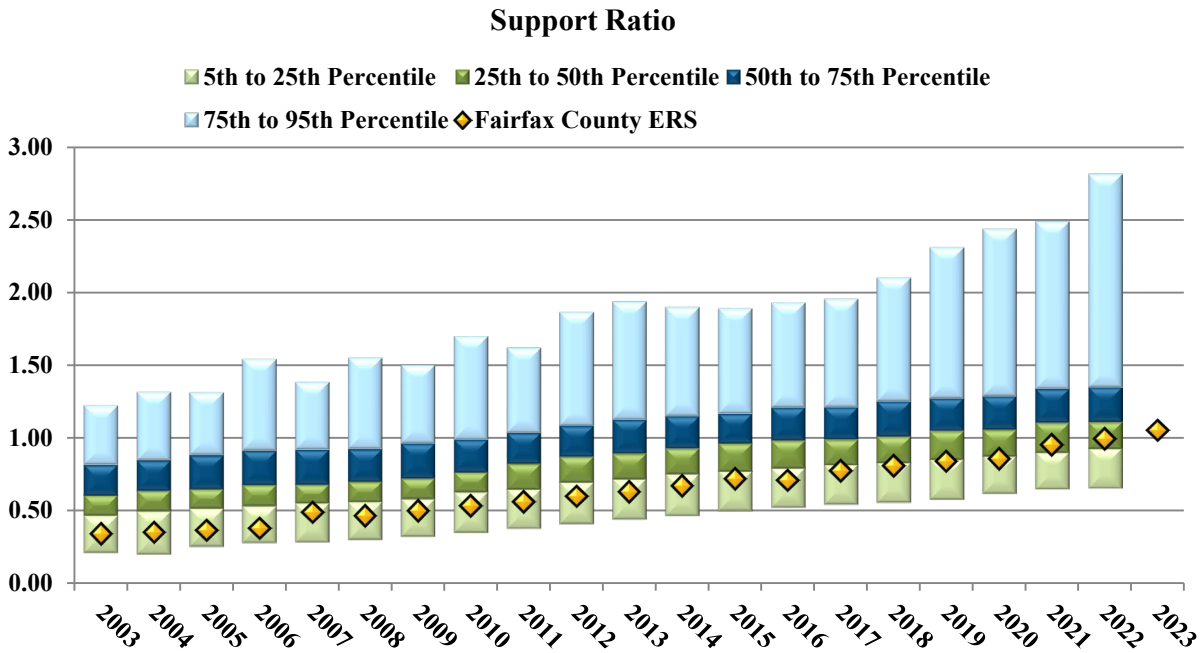
Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it, the more sensitive the plan will be to risk. The measures below have been selected as the most important in understanding the primary risks identified for this system.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION II - IDENTIFICATION AND ASSESSMENT OF RISK

Inactives per Active (Support Ratio)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or entitled to a deferred benefit) to the number of active members. The revenue base supporting the System is usually proportional to the number of active members, so a relatively high number of inactives compared to actives indicates a larger system relative to its revenue base as well.



Survey Data from Public Plans Data as of 7/26/2023

The graph above shows the distribution from the 5th to 95th percentile of support ratios for the plans in the Public Plans Database. The gold diamonds show how the Retirement System compares to the other plans.

Whereas the support ratios for the plans as a whole have increased over the period as they mature, ERS's support ratio has increased more than other plans over the period and is among the 25th to 50th percentile of the Public Plans Database.

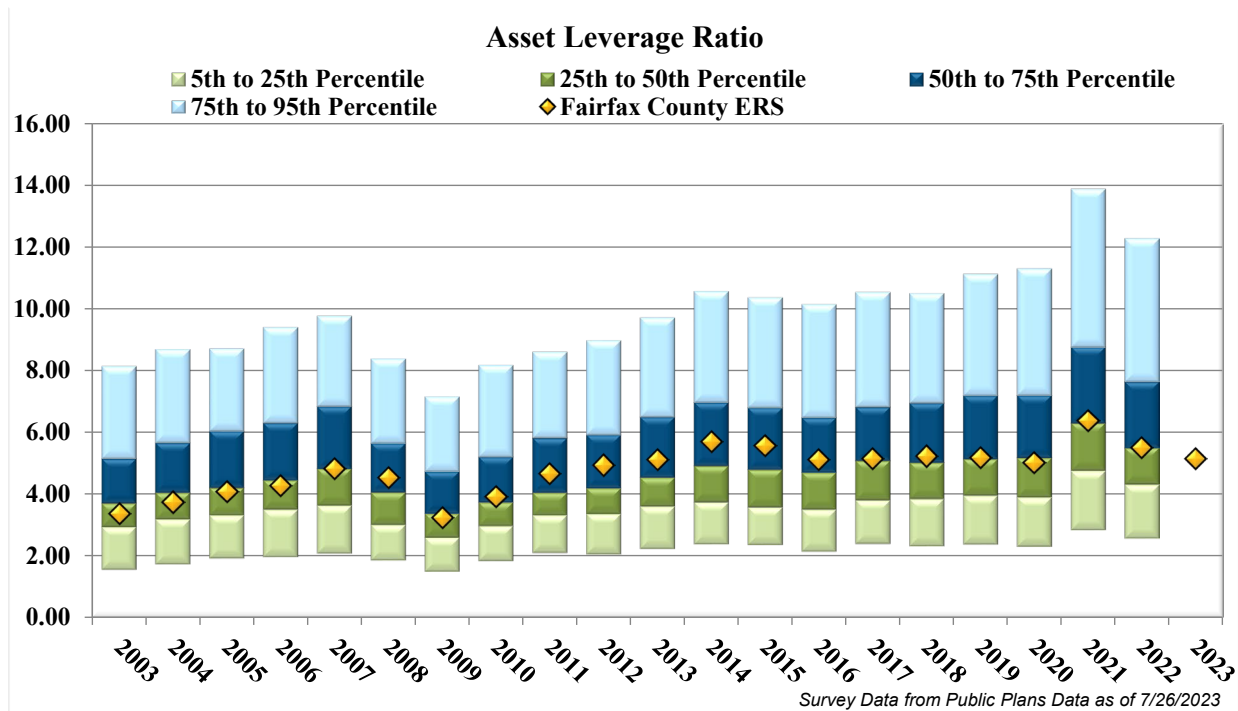
**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION II - IDENTIFICATION AND ASSESSMENT OF RISK

Leverage Ratios

Leverage or volatility ratios measure the size of the Plan compared to its revenue base more directly. An asset leverage ratio of 5.0, for example, means that if the System experiences a 10% loss on assets compared to the expected return, the loss would be equivalent to 50% of payroll.

The same investment loss for a system with an asset leverage ratio of 10.0 would be equivalent to 100% of payroll. As the System becomes better funded, the asset leverage ratio will increase, and if it was 100% funded, the leverage ratio would equal the Actuarial Liability (AL) leverage ratio.



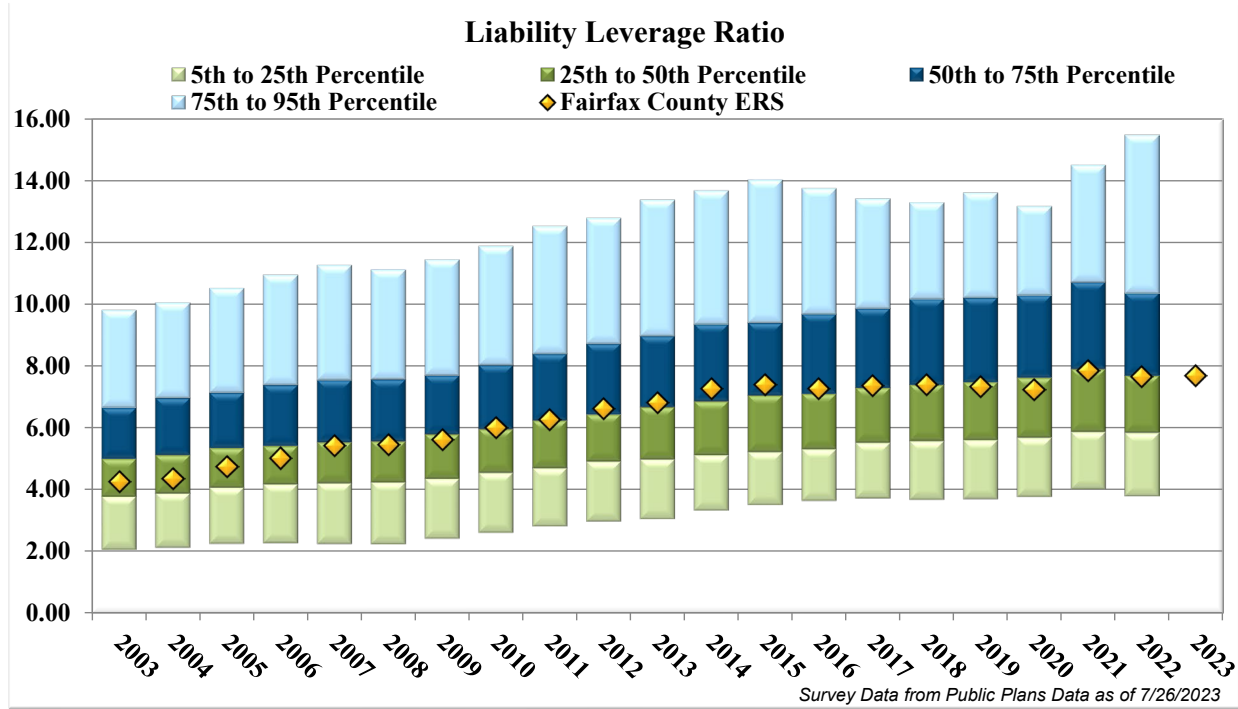
The chart above shows the distribution from the 5th to 95th percentile of asset leverage ratios for the plans in the Public Plans Database. The gold diamonds show how the System compares.

The System’s asset leverage ratio has been in the 25th to 50th percentile compared to other plans before 2007 but moved into the 50th to 75th percentile in 2008 and is now at around the 50th percentile. The asset leverage ratio will increase as the System approaches 100% funded. The large swings in the 2020-2023 range were due to large investment returns and losses during that period.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION II - IDENTIFICATION AND ASSESSMENT OF RISK

The actuarial liability leverage ratio of 5.0 means that if the System experiences a 10% loss on liabilities compared to the expected liability, the liability loss would be equivalent to 50% of payroll.



The chart above shows the distribution from the 5th to 95th percentile of Actuarial Liability leverage ratios for the plans in the Public Plans Database. The gold diamonds show how the System compares.

The System’s Actuarial Liability leverage ratio has historically been in the 25th to 50th percentile compared to other plans. But as the System matures and more of the liability is due to inactive members, this ratio continues to increase. The ratio has been under 8.0 over the period with the ratio currently around 7.7 in 2023.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION III – ASSETS

Pension system assets play a key role in the financial operation of the System and in the decisions the Trustees may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, County contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on the System's assets including:

- **Disclosure** of the System's assets at June 30, 2022 and June 30, 2023,
- Statement of the **changes** in market values during the year,
- Development of the **actuarial value of assets**,
- An assessment of **investment performance**, and
- A projection of the System's expected **cash flows** for the next 10 years.

Disclosure

The market value of assets represents "snap-shot or cash-out" values, which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not suitable for long-range planning.

The actuarial values are market values that have been smoothed; they are used for evaluating the System's ongoing liability to meet its obligations.

Current methods employed by this system set the actuarial value equal to the expected value plus 33⅓% of the difference between the expected value of assets and the actual market value, where the expected value is equal to the prior year's actuarial value, rolled forward with actual contributions, benefit payments, and administrative expenses plus interest imputed at the prior year investment return assumption of 6.75%.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION III – ASSETS

Table III-1		
Statement of Assets at Market Value		
	June 30, 2022	June 30, 2023
<u>Assets</u>		
Equity in County's Pooled Cash,		
Contributions Receivable and Other Assets	\$ 14,928,213	\$ 30,904,989
Accrued Interest and Dividends Receivable	7,323,965	8,768,273
Receivable from Sale of Investments	204,546,506	711,337,785
Capital Assets	43,307	732,786
US Government Obligations	213,346,287	489,261,650
Asset-Backed Securities	96,445,096	115,897,948
Other Bonds and Notes	243,713,426	487,411,061
Common and Preferred Stock	795,328,369	855,472,509
Pooled and Mutual Funds	3,219,714,444	2,890,254,534
Short-Term Investments	268,286,503	(198,786,794)
Cash Collateral Received Under		
Securities Lending Agreements	176,934,112	123,370,903
Total Assets	\$ 5,240,610,228	\$ 5,514,625,644
<u>Liabilities</u>		
Payable for Collateral Received Under		
Securities Lending Agreements	\$ 176,934,112	\$ 123,370,903
Payable for Purchase of Investments	192,212,753	725,461,689
Accounts Payable and Accrued Expenses	14,343,772	13,956,846
Total Liabilities	\$ 383,490,637	\$ 862,789,438
Net Assets Available for Benefits	\$ 4,857,119,591	\$ 4,651,836,206

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION III – ASSETS

Table III-2	
Changes in Market Values	
Value of Assets – June 30, 2022	\$ 4,857,119,591
<u>Additions</u>	
Contributions:	
Employer Contributions	\$ 266,535,889
Employee Contributions	46,534,884
Total Contributions	\$ 313,070,773
Investment Income:	
Net Appreciation (Depreciation) in Fair Value of Investments	\$ (113,596,073)
Interest	24,086,146
Dividends	18,041,647
Total Investment Income	\$ (71,468,280)
Investment Activity Expenses:	
Management Fees	\$ (50,114,183)
Custodian Fees	(145,252)
Consulting Expense	(38,000)
Allocated Administrative Expenses	(1,562,641)
Total Investment Activity Expenses	\$ (51,860,076)
From Securities Lending Activities:	
Securities Lending Income	\$ 1,713,297
Securities Lending Expenses	
Borrowers Rebates	0
Management Fees	(478,552)
Net Income from Securities Lending Activities	\$ 1,234,745
Net Investment Income	\$ (122,093,611)
Total Additions	\$ 190,977,162
<u>Deductions</u>	
Annuity Benefits	\$ (371,480,267)
Disability Benefits	(7,349,508)
Survivor Benefits	(10,148,902)
Refunds and Other Expenses	(4,716,049)
Administrative Expenses	(2,565,821)
Total Deductions	\$ (396,260,547)
Total	
Net Increase (Decrease)	\$ (205,283,385)
Value of Assets – June 30, 2023	\$ 4,651,836,206

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION III – ASSETS

Actuarial Value of Assets

The actuarial value of assets represents a “smoothed” value developed by the actuary to reduce or eliminate erratic results which could develop from short-term fluctuations in the market value of assets. For this system, the actuarial value has been calculated by adding 33⅓% of the difference between market value and expected value to the expected value. The following table illustrates the calculation of actuarial value of assets for the June 30, 2023 valuation.

Table III-3 Development of Actuarial Value of Assets as of June 30, 2023	
1. Actuarial Value of Assets at June 30, 2022	\$ 5,103,373,910
2. Amount in (1) with Interest to June 30, 2023	5,447,851,649
3. Employer and Member Contributions for the Plan Year Ended June 30, 2023	313,070,773
4. Interest on Contributions Assuming Received Uniformly Throughout the Year to June 30, 2023	10,393,610
5. Disbursements from Trust Except Investment Expenses, July 1, 2022 Through June 30, 2023	(396,260,547)
6. Interest on Disbursements Assuming Payments Made Uniformly Throughout the Year to June 30, 2023	(13,155,420)
7. Expected Value of Assets at June 30, 2023 = (2) + (3) + (4) + (5) + (6)	5,361,900,065
8. Market Value of Assets at June 30, 2023	<u>4,651,836,206</u>
9. Excess of (8) Over (7)	\$ (710,063,859)
10. Actuarial Value of Assets at June 30, 2023 = (7) + 33-1/3% of (9)	\$ 5,125,212,112

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION III – ASSETS

Investment Performance

The market value of assets (MVA) returned -2.54% during 2023, which is lower than the assumed 6.75% return. A return of 2.07% on the actuarial value of assets (AVA) is primarily the result of the asset smoothing method being utilized for the calculation of the actuarial value of assets. Since only 33⅓% of the gain or loss from the performance of the System is recognized in a given year, in periods of very good performance, the AVA can lag significantly behind the MVA. In a period of negative returns, the AVA does not decline as rapidly as the MVA.

Table III-4 Annual Rates of Return				
Year Ending June 30,	Market Value	Actuarial Value	Total Return Standard & Poor's 500 Index	Barclays Global Aggregate Index¹
1999	8.5%	16.0%	22.8%	3.1%
2000	5.8%	12.2%	7.2%	4.6%
2001	(0.5)%	7.6%	(14.8)%	11.2%
2002	(4.2)%	3.7%	(18.0)%	8.6%
2003	5.2%	4.1%	0.3%	10.4%
2004	18.2%	8.5%	19.1%	0.3%
2005	13.2%	10.1%	6.3%	6.8%
2006	8.4%	9.7%	8.6%	(0.8)%
2007	14.7%	11.5%	20.6%	6.1%
2008	0.8%	7.7%	(13.1)%	7.1%
2009	(24.0)%	(2.9)%	(26.2)%	5.5%
2010	25.3%	4.3%	14.4%	9.5%
2011	23.7%	10.3%	30.8%	3.9%
2012	8.3%	9.6%	5.4%	7.5%
2013	7.8%	9.0%	20.6%	(0.1)%
2014	14.8%	10.9%	24.6%	4.4%
2015	0.4%	6.6%	7.4%	1.8%
2016	(0.5)%	4.3%	4.0%	6.0%
2017	6.8%	4.8%	17.9%	(0.3)%
2018	7.3%	5.6%	14.4%	(0.4)%
2019	6.0%	5.8%	10.4%	7.9%
2020	2.7%	4.8%	7.5%	8.7%
2021	26.8%	11.7%	40.8%	(0.3)%
2022	(3.6)%	4.3%	(10.6)%	(10.3)%
2023	(2.5)%	2.1%	19.6%	(0.9)%

¹ Formerly the Lehman Global Aggregate Bond Index.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION III – ASSETS

Expected benefit payments are projected for the closed group valued at June 30, 2023. Projecting any further than 10 years using a closed group would not yield reliable predictions due to the omission of new hires.

Expected employer contributions are projected based on the current County contribution rate of 30.07% for FY 2024, 32.58% for FY 2025, and then continuing to calculate a rate with 15-year amortization layers thereafter. This projection assumes no further liability gains or losses, continued reflection of untapped investment gains or losses, a 2.25% annual increase in the total covered payroll, and models the anticipated impact of new hires coming in with altered plan provisions.

Table III-5 Projection of System's Benefit Payments and County Contributions		
Year Beginning July 1,	Expected Benefit Payments	Expected County Contributions
2023	\$ 461,361,000	\$ 271,565,000
2024	444,238,000	300,864,000
2025	446,370,000	325,846,000
2026	451,633,000	344,675,000
2027	466,550,000	360,533,000
2028	482,464,000	374,105,000
2029	498,196,000	382,523,000
2030	513,319,000	391,129,000
2031	528,249,000	399,930,000
2032	543,178,000	408,928,000

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION IV - LIABILITIES

In this section, we present detailed information on System liabilities including:

- **Disclosure** of System liabilities at June 30, 2022 and June 30, 2023,
- Statement of **changes** in these liabilities during the year, and
- A **projection** of future liabilities.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present Value of Benefits:** Used for analyzing the financial outlook of the System, this represents the amount of money needed today to fund all future benefits of the System, assuming participants continue to accrue benefits and all assumptions are met.
- **Actuarial Liability:** Used for funding calculations and GASB disclosures, this liability is calculated taking the present value of benefits above and subtracting the present value of future member contributions and future employer normal costs under an acceptable actuarial funding method. This method is referred to as the **Entry Age Normal** funding method.
- **Present Value of Accrued Liabilities:** Used for communicating the current level of liabilities, this liability represents the total amount of money needed today to fully fund the current accrued obligations of the System, assuming no future accruals of benefits and that all assumptions are met, including the 6.75% investment return. These liabilities are also used to assess whether the System can meet its current benefit commitments.

None of the liability figures disclosed in this report is meant to be a measure of the System's settlement liability.

The following table discloses each of these liabilities for the current and prior valuations. With respect to each disclosure, a subtraction of the appropriate value of the System's assets yields, for each respective type, a **net surplus**, or an **unfunded liability**.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION IV - LIABILITIES

Table IV-1		
Liabilities/Net (Surplus)/Unfunded		
	June 30, 2022	June 30, 2023
Present Value of Future Benefits		
Active Participant Benefits (excluding DROP)	\$ 3,587,787,537	\$ 3,574,215,326
DROP Participant Benefits	485,781,702	473,002,326
Retiree Benefits	3,590,053,493	3,822,361,781
Terminated Vested and Inactive Members	<u>153,154,587</u>	<u>179,857,979</u>
Present Value of Benefits (PVB)	\$ 7,816,777,319	\$ 8,049,437,412
Market Value of Assets (MVA)	\$ 4,857,119,591	\$ 4,651,836,206
Future Employee Contributions	358,925,626	370,752,191
Future County Contributions	<u>2,600,732,102</u>	<u>3,026,849,015</u>
Total Resources	\$ 7,816,777,319	\$ 8,049,437,412
Actuarial Liability		
Present Value of Benefits (PVB)	\$ 7,816,777,319	\$ 8,049,437,412
Present Value of Future Normal Costs (PVFNC)		
County Portion	721,215,851	724,891,652
Employee Portion	<u>358,925,626</u>	<u>370,752,191</u>
Actuarial Liability	\$ 6,736,635,842	\$ 6,953,793,569
(AL = PVB - PVFNC)		
Actuarial Value of Assets (AVA)	<u>\$ 5,103,373,910</u>	<u>\$ 5,125,212,112</u>
Net (Surplus)/Unfunded (AL – AVA)	\$ 1,633,261,932	\$ 1,828,581,457
Present Value of Accrued Benefits		
Present Value of Benefits (PVB)	\$ 7,816,777,319	\$ 8,049,437,412
Present Value of Future Benefit Accruals (PVFBA)	<u>1,934,943,877</u>	<u>1,940,056,516</u>
Present Value of Accrued Benefits	\$ 5,881,833,442	\$ 6,109,380,896
(PVAB = PVB – PVFBA)		
Market Value of Assets (MVA)	<u>\$ 4,857,119,591</u>	<u>\$ 4,651,836,206</u>
Net Unfunded, not less than \$0 (PVAB – MVA)	\$ 1,024,713,851	\$ 1,457,544,690

SECTION IV - LIABILITIES

Low-Default-Risk Obligation Measure (LDROM)

The System invests in a diversified portfolio with the objective of maximizing investment returns at a reasonable level of risk. The lowest risk portfolio for a pension plan would be composed entirely of low-default-risk fixed income securities whose cash flows match the benefit cash flows of the System. Such a portfolio, however, would have a lower expected rate of return than the diversified portfolio. The LDROM represents what the funding liability would be if the System invested its assets in such a portfolio. As of June 30, 2023, we estimate that a portfolio representative of the Financial Times Stock Exchange (FTSE) Pension Liability index would have an expected return of 5.00% rounded to the nearest 0.25% compared to the System's discount rate of 7.00%, and the LDROM would be \$7.4 billion compared to the Present Value of Accrued Actuarial Liability of \$6.1 billion. The \$1.3 billion difference represents the expected taxpayer savings from bearing the risk of investing in the diversified portfolio. Alternatively, it also represents the cost of eliminating the investment risk.

If the System were to invest in the LDROM portfolio, the reported funded status would decrease, and contribution requirements would increase. Benefit security for members of the plan relies on a combination of the assets in the System, the investment returns generated on those assets, and the promise of future contributions. If the System were to invest in the LDROM portfolio, it would not change the amount of assets currently in the System, but it would reduce expected future investment returns and increase expected future contributions. However, the range of future investment returns and future contributions needed would narrow significantly.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION IV - LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above and due to changes in System assets resulting from the following:

- Employer contributions less than the full actuarial contribution
- Investment earnings different than expected
- A change in the method used to measure System assets

In each valuation, we report on those elements of change that are of particular significance, potentially affecting the long-term financial outlook of the System. Below we present key changes in liabilities since the last valuation.

Table IV-2			
	Present Value of Benefits	Actuarial Liability	Present Value of Accrued Benefits
Liabilities June 30, 2022	\$ 7,816,777,319	\$ 6,736,635,842	\$ 5,881,833,442
Liabilities June 30, 2023	<u>8,049,437,412</u>	<u>6,953,793,569</u>	<u>6,109,380,896</u>
Liability Increase (Decrease)	\$ 232,660,093	\$ 217,157,727	\$ 227,547,454
Change Due to:			
Plan Amendment	\$ 0	\$ 0	\$ 0
Actuarial (Gain)/Loss	<i>Not Calculated</i>	31,646,234	<i>Not Calculated</i>
Method and Assumption Changes	0	0	0
Benefits Accumulated and Other Sources	232,660,093	185,511,493	227,547,454

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION V - CONTRIBUTIONS

In the process of evaluating the financial condition of any pension system, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the system. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that is both stable and predictable.

For this system, the funding method employed is the **Entry Age Actuarial Cost Method**. Under this method, there are three components to the total contribution: the **normal cost rate**, the **unfunded actuarial liability rate** (UAL rate), and the **administrative expense rate**. The normal cost rate is determined in the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into the System, of each member's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary. Second, the normal cost rate is multiplied by current salary and added together to obtain the total System normal cost. This is divided by total salary to convert it to the total system normal cost rate. Finally, the total normal cost rate is reduced by the average member contribution rate to produce the County's normal cost rate.

Development of County Contribution Rate

The employer's total contribution rate is equal to the normal cost rate plus rate changes due to amendments passed or assumption changes adopted since July 1, 2001 plus a 15-year amortization of the UAL that existed on June 30, 2018 other than that which existed from prior amendment and assumption change bases. A change was made in the 2022 valuation to the timing of the 15-year amortization period for amortization bases that have been created since 2016. The 15-year period now begins at payment rather than from the valuation date in which the layer is first recognized. In the future, additional amortization bases will be created each year. Finally, the rate includes an expense rate. Please see Table V-2 for details.

This section contains a comparison of the County contribution rates for FY 2024 and 2025 in Table V-1. Tables V-2 and V-3 show the calculations of the FY 2024 and 2025 rates using a closed 15-year layered amortization approach.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION V - CONTRIBUTIONS

The table below presents and compares the budgeted rate for the System for this valuation and the prior one.

The UAL rate is the level percent of member payroll which, when applied to each year's payroll, will be sufficient to amortize the various layers of unfunded actuarial liability over their respective 15-year periods.

Table V-1		
Actuarially Determined Rate (for County Contribution)		
Valuation Date	June 30, 2022	June 30, 2023
Fiscal Year	2024	2025
Normal Cost Rate	9.76%	9.63%
UAL Rate	20.01%	22.65%
Expense Rate	<u>0.30%</u>	<u>0.30%</u>
Total County Rate	30.07%	32.58%

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION V - CONTRIBUTIONS

Table V-2 Development of UAL Amortization Layer		
	June 30, 2022 (for FY 2024)	June 30, 2023 (for FY 2025)
1. Present Value of Future Benefits		
a. Active Employees	\$ 3,587,787,537	\$ 3,574,215,326
b. DROP	485,781,702	473,002,326
c. Retired Members	3,590,053,493	3,822,361,781
d. Vested Terminated and Inactive Members	<u>153,154,587</u>	<u>179,857,979</u>
e. Total Present Value	\$ 7,816,777,319	\$ 8,049,437,412
2. Present Value of Future Normal Costs		
a. County Portion	\$ 721,215,851	\$ 724,891,652
b. Employee Portion	<u>358,925,626</u>	<u>370,752,191</u>
c. Total Present Value	\$ 1,080,141,477	\$ 1,095,643,843
3. Actuarial Liability (1) – (2)	\$ 6,736,635,842	\$ 6,953,793,569
4. Actuarial Value of Assets	\$ 5,103,373,910	\$ 5,125,212,112
5. Unfunded Actuarial Liability (UAL)	\$ 1,633,261,932	\$ 1,828,581,457
6. Outstanding Prior Bases (see Table V-4)	<u>1,267,463,094</u>	<u>1,572,211,796</u>
7. New Base at July 1, 2022//2023	365,798,838	256,369,661
8. Expected County Contribution FY 2023//2024 (County Rate x Expected Payroll)	254,412,883	271,564,642
9. Employer Normal Cost Payments	(85,978,869)	(86,969,322)
10. Expense Payments (using 0.30% assumption)	<u>(2,642,793)</u>	<u>(2,709,325)</u>
11. Net Contribution to apply to UAL	165,791,221	181,885,995
12. Amortization of prior bases (from Table V-4)	<u>143,511,323</u>	<u>180,198,476</u>
13. Excess UAL Payment (11 - 12)	\$ 22,279,898	\$ 1,687,519
14. Remaining New Base One Year Later (7 - 13, with interest)	\$ 367,470,693	\$ 271,931,070
15. 15-year Amortization Factor	10.9262	10.9262
16. New UAL Amortization Layer (14 / 15)	\$ 33,632,067	\$ 24,887,982
17. Next Year Amortization of Bases (from Table V-4)	<u>146,567,017</u>	<u>184,252,942</u>
18. Total UAL Payments (16 + 17)	\$ 180,199,084	\$ 209,140,924
19. Estimated Payroll	\$ 900,751,982	\$ 923,428,155
20. UAL as a % of Payroll	20.01%	22.65%

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION V - CONTRIBUTIONS

Table V-3 Schedule of Amortization Bases						
Type of Base	Date Established	June 30, 2023	FY 2024	June 30, 2024	Amortization Years	FY 2025
		Outstanding Amount	Amortization Payment	Outstanding Amount ¹		Amortization Payment
1. Assumption Changes	7/1/2010	\$ 482,479	\$ 173,373	\$ 335,918	2	\$ 177,274
2. Reduce Disability Offset to 25%	7/1/2013	385,665	86,701	322,118	4	88,652
3. Assumption Changes	7/1/2014	52,136,384	9,971,576	45,352,968	5	10,195,936
4. Reduce Disability Offset to 15%	7/1/2014	906,719	173,419	788,746	5	177,321
5. Assumption Changes	7/1/2016	51,702,044	7,007,881	47,951,397	8	7,165,558
6. Unfunded Base	7/1/2018	1,138,298,717	131,385,618	1,079,386,402	10	134,341,794
7. New UAL Layer 2019	7/1/2019	91,590,316	9,884,131	87,560,389	11	10,106,524
8. New UAL Layer 2020	7/1/2020	85,333,398	8,668,834	82,136,772	12	8,863,883
9. New UAL Layer 2021	7/1/2021	(216,094,619)	(20,785,124)	(209,205,838)	13	(21,252,789)
10. New UAL Layer 2022	7/1/2022	<u>367,470,693</u>	<u>33,632,067</u>	<u>357,526,350</u>	14	<u>34,388,789</u>
Total		\$ 1,572,211,796	\$ 180,198,476	\$ 1,492,155,222		\$ 184,252,942

¹ Outstanding amount includes a full year of interest on prior year balance and half year on the amortization payment

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION VI - ACCOUNTING STATEMENT INFORMATION

ASC Topic 960 of the Financial Accounting Standards Board (FASB) describes certain disclosures regarding a plan's funded status.

The FASB ASC Topic 960 disclosures provide a quasi "snap-shot" view of how the System's assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the System were to terminate.

FASB ASC Topic 960 specifies that a comparison of the present value of accrued (accumulated) benefits with the market value of the assets as of the valuation date must be provided. The relevant amounts as of June 30, 2022 and June 30, 2023 are exhibited in Table VI-1, which also includes a reconciliation of liabilities determined as of the prior valuation, June 30, 2022 to the liabilities as of June 30, 2023.

Table VI-2 is a history of gains and losses in Actuarial Liability, and Table VI-3 is the Schedule of Funded Liabilities by Type, which shows the portion of Accrued Liability covered by Assets. See our report dated October 27, 2023 for the required disclosures under GASB Statement No. 67.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION VI - ACCOUNTING STATEMENT INFORMATION

Table VI-1		
Accounting Statement Information		
	June 30, 2022	June 30, 2023
A. FASB ASC Topic 960 Basis		
1. Present Value of Benefits Accrued and Vested to Date		
a. Members Currently Receiving Payments	\$ 3,590,053,493	\$ 3,822,361,781
b. Vested Terminated and Inactive Members	153,154,587	179,857,979
c. DROP	485,781,702	473,002,326
d. Active Members	<u>968,328,278</u>	<u>946,099,326</u>
e. Total PVVB	\$ 5,197,318,060	\$ 5,421,321,412
2. Present Value of Non-Vested Accrued Benefits for Active Members	<u>684,515,382</u>	<u>688,059,484</u>
3. Total Present Value of Accrued Benefits	\$ 5,881,833,442	\$ 6,109,380,896
4. Assets at Market Value	<u>4,857,119,591</u>	<u>4,651,836,206</u>
5. Unfunded Present Value of Accrued Benefits, But Not Less Than Zero	\$ 1,024,713,851	\$ 1,457,544,690
6. Ratio of Assets to Value of Benefits (4) / (3)	82.6%	76.1%
B. Statement of Changes in Present Value of Accrued Benefits		
Actuarial Present Value of Accrued Benefits as of June 30, 2022		\$ 5,881,833,442
Increase (Decrease) During Years Attributable to:		
Passage of Time		\$ 383,736,560
Benefit Paid – FY 2023		(393,694,726)
Assumption Change		0
Plan Amendment		0
Benefits Accrued, Other Gains/Losses		<u>237,505,620</u>
Net Increase (Decrease)		\$ 227,547,454
Actuarial Present Value of Accrued Benefits as of June 30, 2023		\$ 6,109,380,896

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

SECTION VI - ACCOUNTING STATEMENT INFORMATION

**Table VI-2
Analysis of Financial Experience
Gains and Losses in Accrued Liability During Years Ended June 30
Resulting from Differences Between Assumed Experience and Actual Experience**

Type of Activity	<i>Gain (or Loss) for Year ending June 30,</i>					
	2018	2019	2020	2021	2022	2023
Investment Income	\$ (64,779,936)	\$ (59,391,459)	\$ (103,597,308)	\$ 192,341,249	\$ (123,127,160)	\$ (236,687,953)
Combined Liability Experience	<u>(41,362,698)</u>	<u>(29,354,840)</u>	<u>5,460,818</u>	<u>43,615,539</u>	<u>(236,424,050)</u>	<u>(31,646,234)</u>
Gain (or Loss) During Year from Financial Experience	\$ (106,142,634)	\$ (88,746,299)	\$ (98,136,490)	\$ 235,956,788	\$ (359,551,210)	\$ (268,334,187)
Non-Recurring Items	<u>(603,265)</u>	<u>0</u>	<u>0</u>	<u>2,280,293</u>	<u>0</u>	<u>0</u>
Composite Gain (or Loss) During Year	\$ (106,745,899)	\$ (88,746,299)	\$ (98,136,490)	\$ 238,237,081	\$ (359,551,210)	\$ (268,334,187)

**Table VI-3
Schedule of Funded Liabilities by Type
Aggregate Accrued Liabilities For**

Valuation Date June 30,	(1)	(2)	(3)	Reported Assets*	Portion of Accrued Liabilities by Reported Assets		
	Active Member Contributions	Retirees Vested Terms, Beneficiaries & DROP	Active Members (Employer Financed Portion)		(1)	(2)	(3)
2018	\$ 397,692,499	\$ 3,444,004,357	\$ 1,749,526,935	\$ 4,070,486,587	100%	100%	13%
2019	404,341,900	3,624,784,344	1,762,554,326	4,220,420,263	100%	100%	11%
2020	419,154,588	3,719,369,617	1,822,541,878	4,349,257,826	100%	100%	12%
2021	409,477,095	3,995,179,306	1,925,153,122	4,997,549,929	100%	100%	31%
2022	437,379,797	4,228,989,782	2,070,266,263	5,103,373,910	100%	100%	21%
2023	437,995,519	4,475,222,086	2,040,575,964	5,125,212,112	100%	100%	10%

* Reported assets are the actuarial value of assets in this demonstration.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

The data for this valuation was provided electronically by the Fairfax County Retirement System staff. Cheiron did not perform a formal audit on the data. However, we did perform checks of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23 – Data Quality. The data was collected as of December 31, 2022.

Data reported in this Appendix is as of the December 31, 2022 data collection date. Covered payroll and benefits in pay status reported elsewhere in this report have been adjusted to approximate the June 30, 2023 values.

For inactive participants given with a Joint and Survivor form of benefit and no continuation percentage provided, a survivor percentage of 100% is assumed.

Summary of Membership Data as of December 31, 2022

		Active Members *		
		Count	Average Age	Average Salary
School	Plan A	1099	55.49	\$ 41,675
	Plan B	1162	55.60	46,708
	Plan C	943	51.42	34,027
	Plan D	730	52.27	37,251
	Plan E	<u>1324</u>	<u>47.34</u>	<u>32,885</u>
	Total	5,258	52.29	\$ 38,588
County	Plan A	1,113	51.40	\$ 76,203
	Plan B	2,265	51.44	83,446
	Plan C	654	43.35	64,711
	Plan D	1,912	44.83	76,177
	Plan E	<u>2,581</u>	<u>39.88</u>	<u>67,884</u>
	Total	8,525	45.83	\$ 74,721
Total Systems	Plan A	2,212	53.43	\$ 59,049
	Plan B	3,427	52.85	70,989
	Plan C	1,597	48.12	46,593
	Plan D	2,642	46.89	65,422
	Plan E	<u>3,905</u>	<u>42.41</u>	<u>56,018</u>
	Total	13,783	48.29	\$ 60,937

* Excludes DROP participants.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

	Inactive Members		Total
	School	County	
Service Retirement			
Count	3,981	6,058	10,039
Annual Basic Benefit	\$ 75,674,445	\$ 220,308,928	\$ 295,983,373
Annual Supplements	10,813,743	32,622,797	43,436,540
Service – Connected Disability			
Count	67	63	130
Annual Basic Benefit ¹	\$ 1,567,063	\$ 1,846,575	\$ 3,413,638
Ordinary Disability			
Count	179	132	311
Annual Basic Benefit	\$ 1,924,900	\$ 2,212,091	\$ 4,136,991
Beneficiaries			
Count	48	537	585
Annual Basic Benefit	\$ 700,210	\$ 9,979,300	\$ 10,679,510
DROP			
Count	284	458	742
Annual Basic Benefit	\$ 6,272,992	\$ 17,845,906	\$ 24,118,898
Annual Supplements	2,639,653	7,498,617	10,138,269
Vested Former Members			
Count	1,188	1,547	2,735
Annual Basic Benefit ²	\$ 6,942,394	\$ 15,710,143	\$ 22,652,537

¹ Benefits are net of offsets for Workers' Compensation and Social Security.

² Benefits are payable at age 65.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Membership Statistics						
The number of retired members, beneficiaries, and disabled members can be analyzed as follows:						
	<u>December 31, 2021</u>		<u>December 31, 2022</u>		<u>% Change</u>	
		Average Monthly Benefit		Average Monthly Benefit		Average Monthly Benefit
Inactive Members	Count		Count		Count	
Service Retirement						
Basic Benefit	9,635	\$ 2,397	10,039	\$ 2,483	4.2%	3.6%
Supplement	2,223	1,580	2,267	1,596	2.0%	1.1%
Service-Connected Disability	129	2,488	130	2,564	0.8%	3.1%
Ordinary Disability	325	1,093	311	1,120	-4.3%	2.5%
Beneficiaries	<u>552</u>	<u>1,465</u>	<u>585</u>	<u>1,537</u>	<u>6.0%</u>	<u>4.9%</u>
Total/Average (Basic Benefit)	10,641	2,310	11,065	2,395	4.0%	3.7%

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Data Reconciliation from June 30, 2022 to June 30, 2023								
	Active	DROP	Terminated Vested	Retired	Service- Connected Disability	Ordinary Disability	Beneficiary	Total
Participant count as of July 1, 2022	13,943	734	2,475	9,635	129	325	552	27,793
New Hires / Re-hires	1,941		(26)	(2)				1,913
Terminated Vested	(415)		415					0
DROP	(315)	315						0
Retired	(277)	(304)	(72)	653				0
Deceased with beneficiary	(3)			(50)			53	0
Deceased without beneficiary	(13)	(3)	(7)	(197)	(5)	(21)	(20)	(266)
Benefits Expired								0
Ordinary Disability	(5)		(2)			7		0
Service-Connected Disability	(3)		(3)		6			0
Vested Return of Contributions	(2)		(74)					(76)
Terminated Not Vested	(1,068)							(1,068)
Corrections			29					29
Change	(160)	8	260	404	1	(14)	33	532
Participant count as of June 30, 2023	13,783	742	2,735	10,039	130	311	585	28,325

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - County Plan A

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	3	7	0	0	0	0	0	10
35 to 39	0	1	12	61	28	0	0	0	0	102
40 to 44	2	3	8	46	78	34	1	0	0	172
45 to 49	0	2	8	38	73	66	21	0	0	208
50 to 54	0	1	11	56	55	65	49	12	0	249
55 to 59	1	1	11	42	43	42	20	27	0	187
60 to 64	0	2	13	33	37	18	13	14	0	130
65 & up	0	3	10	14	6	4	9	9	0	55
Total	3	13	76	297	320	229	113	62	0	1,113

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	189,509	514,163	0	0	0	0	0	703,672
35 to 39	0	30,734	511,542	4,034,872	1,968,326	0	0	0	0	6,545,474
40 to 44	66,034	222,688	550,879	3,320,682	5,960,305	2,479,657	68,532	0	0	12,668,777
45 to 49	0	75,911	345,949	2,748,521	5,677,127	5,642,910	1,724,967	0	0	16,215,385
50 to 54	0	47,113	558,261	3,992,785	4,269,101	5,814,521	4,915,361	1,165,333	0	20,762,475
55 to 59	12,800	55,770	535,456	2,663,893	3,188,115	3,720,647	1,843,360	2,527,134	0	14,547,175
60 to 64	0	26,585	699,651	2,454,834	2,486,591	1,452,690	1,095,466	1,314,180	0	9,529,997
65 & up	0	61,990	293,625	1,001,683	490,563	328,138	792,120	873,154	0	3,841,273
Total	\$ 78,834	\$ 520,791	\$ 3,684,872	\$ 20,731,433	\$ 24,040,128	\$ 19,438,563	\$ 10,439,806	\$ 5,879,801	\$ 0	\$ 84,814,228

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - County Plan B

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	2	37	3	0	0	0	0	42
35 to 39	0	3	15	137	51	3	0	0	0	209
40 to 44	0	1	15	129	156	44	0	0	0	345
45 to 49	0	2	16	122	147	80	19	0	0	386
50 to 54	0	3	20	113	159	118	42	8	0	463
55 to 59	0	0	22	112	146	94	20	10	0	404
60 to 64	1	0	16	112	119	42	10	6	0	306
65 & up	0	1	14	33	40	14	3	5	0	110
Total	1	10	120	795	821	395	94	29	0	2,265

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	114,527	2,745,839	218,444	0	0	0	0	3,078,810
35 to 39	0	115,504	788,717	10,155,854	3,641,673	200,251	0	0	0	14,901,999
40 to 44	0	56,050	939,025	10,976,219	12,209,903	3,377,927	0	0	0	27,559,124
45 to 49	0	99,053	1,242,000	10,021,398	12,481,748	7,358,680	1,681,321	0	0	32,884,200
50 to 54	0	135,758	1,129,512	9,084,288	14,438,168	11,514,209	4,299,677	755,326	0	41,356,938
55 to 59	0	0	1,285,998	8,002,493	12,909,088	9,090,470	1,818,097	1,086,612	0	34,192,758
60 to 64	9,576	0	677,373	8,935,970	10,155,360	4,369,431	970,732	728,542	0	25,846,984
65 & up	0	8,639	671,110	3,158,158	3,518,857	1,136,290	237,136	454,574	0	9,184,764
Total	\$ 9,576	\$ 415,004	\$ 6,848,262	\$ 63,080,219	\$ 69,573,241	\$ 37,047,258	\$ 9,006,963	\$ 3,025,054	\$ 0	\$ 189,005,577



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - County Plan C

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	0	1	0	0	0	0	0	0	0	1
25 to 29	0	31	15	0	0	0	0	0	0	46
30 to 34	1	57	75	1	0	0	0	0	0	134
35 to 39	0	47	78	1	0	0	0	0	0	126
40 to 44	0	52	50	1	0	0	0	0	0	103
45 to 49	0	25	40	0	0	0	0	0	0	65
50 to 54	0	18	39	1	0	0	0	0	0	58
55 to 59	1	20	32	0	0	1	0	0	0	54
60 to 64	0	12	25	1	0	0	0	0	0	38
65 & up	0	17	11	1	0	0	0	0	0	29
Total	2	280	365	6	0	1	0	0	0	654

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 0	\$ 53,722	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 53,722
25 to 29	0	1,578,413	910,744	0	0	0	0	0	0	2,489,157
30 to 34	4,164	3,053,232	4,866,130	73,721	0	0	0	0	0	7,997,247
35 to 39	0	2,665,375	5,425,455	86,990	0	0	0	0	0	8,177,820
40 to 44	0	3,429,201	3,595,679	98,925	0	0	0	0	0	7,123,805
45 to 49	0	1,388,349	2,950,635	0	0	0	0	0	0	4,338,984
50 to 54	0	1,078,387	2,986,931	92,379	0	0	0	0	0	4,157,697
55 to 59	46,267	1,214,509	2,251,018	0	0	105,916	0	0	0	3,617,710
60 to 64	0	659,877	1,881,901	154,037	0	0	0	0	0	2,695,815
65 & up	0	742,366	859,179	67,648	0	0	0	0	0	1,669,193
Total	\$ 50,431	\$ 15,863,431	\$ 25,727,672	\$ 573,700	\$ 0	\$ 105,916	\$ 0	\$ 0	\$ 0	\$ 42,321,150



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - County Plan D

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	0	3	0	0	0	0	0	0	0	3
25 to 29	0	53	37	0	0	0	0	0	0	90
30 to 34	1	111	216	3	0	0	0	0	0	331
35 to 39	0	106	233	4	0	0	0	0	0	343
40 to 44	1	85	201	6	1	0	0	0	0	294
45 to 49	0	76	147	5	1	0	0	0	0	229
50 to 54	0	57	169	5	0	0	0	0	0	231
55 to 59	0	46	115	7	0	0	0	0	0	168
60 to 64	1	46	98	11	1	0	0	0	0	157
65 & up	0	17	46	3	0	0	0	0	0	66
Total	3	600	1,262	44	3	0	0	0	0	1,912

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 0	\$ 152,314	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 152,314
25 to 29	0	3,074,241	2,227,798	0	0	0	0	0	0	5,302,039
30 to 34	35,107	7,022,647	14,540,243	220,532	0	0	0	0	0	21,818,529
35 to 39	0	7,883,249	17,566,545	303,091	0	0	0	0	0	25,752,885
40 to 44	11,644	6,508,461	16,717,906	534,699	89,723	0	0	0	0	23,862,433
45 to 49	0	6,132,455	12,121,794	530,634	103,608	0	0	0	0	18,888,491
50 to 54	0	4,118,744	13,343,799	620,103	0	0	0	0	0	18,082,646
55 to 59	0	3,683,502	9,226,720	670,078	0	0	0	0	0	13,580,300
60 to 64	4,826	3,139,585	8,644,136	1,062,774	184,759	0	0	0	0	13,036,080
65 & up	0	1,124,029	3,798,680	252,172	0	0	0	0	0	5,174,881
Total	\$ 51,577	\$ 42,839,227	\$ 98,187,621	\$ 4,194,083	\$ 378,090	\$ 0	\$ 0	\$ 0	\$ 0	\$ 145,650,598



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - County Plan E

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	93	30	0	0	0	0	0	0	0	123
25 to 29	227	255	0	0	0	0	0	0	0	482
30 to 34	209	263	0	1	0	0	0	0	0	473
35 to 39	172	197	0	0	0	0	0	0	0	369
40 to 44	137	177	0	1	0	0	0	0	0	315
45 to 49	100	158	0	0	0	0	0	0	0	258
50 to 54	116	138	0	0	0	0	0	0	0	254
55 to 59	66	99	1	1	1	0	0	0	0	168
60 to 64	32	59	0	0	0	0	0	0	0	91
65 & up	18	30	0	0	0	0	0	0	0	48
Total	1,170	1,406	1	3	1	0	0	0	0	2,581

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 4,841,521	\$ 1,505,164	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 6,346,685
25 to 29	13,847,246	14,768,703	0	0	0	0	0	0	0	28,615,949
30 to 34	13,320,480	17,400,155	0	76,849	0	0	0	0	0	30,797,484
35 to 39	12,424,921	14,389,685	0	0	0	0	0	0	0	26,814,606
40 to 44	10,211,824	12,795,336	0	102,163	0	0	0	0	0	23,109,323
45 to 49	6,990,529	12,562,660	0	0	0	0	0	0	0	19,553,189
50 to 54	7,930,904	9,646,104	0	0	0	0	0	0	0	17,577,008
55 to 59	5,258,725	7,007,749	95,000	82,771	80,998	0	0	0	0	12,525,243
60 to 64	2,256,419	4,179,073	0	0	0	0	0	0	0	6,435,492
65 & up	1,235,906	2,197,804	0	0	0	0	0	0	0	3,433,710
Total	\$ 78,318,475	\$ 96,452,433	\$ 95,000	\$ 261,783	\$ 80,998	\$ 0	\$ 0	\$ 0	\$ 0	\$ 175,208,689



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - School Plan A

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	2	2	2	2	0	0	0	0	8
35 to 39	1	3	7	11	7	0	0	0	0	29
40 to 44	2	13	21	27	16	3	0	0	0	82
45 to 49	1	15	49	34	40	12	2	0	0	153
50 to 54	0	24	53	75	52	26	7	1	1	238
55 to 59	1	21	78	73	54	25	4	1	1	257
60 to 64	1	16	62	74	45	17	1	5	5	221
65 & up	0	9	46	39	14	2	0	1	1	111
Total	6	103	318	335	230	85	14	8	8	1,099

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	70,380	102,693	135,740	130,553	0	0	0	0	439,366
35 to 39	7,211	75,021	360,818	699,793	359,624	0	0	0	0	1,502,467
40 to 44	26,880	347,342	709,808	1,318,524	1,030,647	219,072	0	0	0	3,652,273
45 to 49	16,164	369,625	1,597,992	1,632,490	2,054,370	726,938	151,185	0	0	6,548,764
50 to 54	0	559,374	1,610,322	3,571,869	2,630,207	1,686,004	553,069	69,298	69,298	10,680,143
55 to 59	23,513	472,380	1,786,205	3,343,822	2,891,798	1,363,163	209,236	100,452	100,452	10,190,569
60 to 64	21,714	354,855	1,707,711	3,475,292	2,223,633	1,012,197	74,385	406,072	406,072	9,275,859
65 & up	0	146,994	1,021,986	1,567,357	623,825	93,479	0	58,282	58,282	3,511,923
Total	\$ 95,482	\$ 2,395,971	\$ 8,897,535	\$ 15,744,887	\$ 11,944,657	\$ 5,100,853	\$ 987,875	\$ 634,104	\$ 634,104	\$ 45,801,364



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - School Plan B

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	1	0	0	0	0	0	1
30 to 34	0	0	3	5	0	0	0	0	0	8
35 to 39	0	3	4	22	12	0	0	0	0	41
40 to 44	0	3	12	25	25	9	2	0	0	76
45 to 49	0	6	26	40	44	21	7	2	0	146
50 to 54	0	11	52	61	71	54	9	1	0	259
55 to 59	0	15	70	91	63	32	9	5	0	285
60 to 64	0	15	75	58	44	20	7	4	0	223
65 & up	0	8	35	35	31	7	5	2	0	123
Total	0	61	277	338	290	143	39	14	0	1,162

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 to 29	0	0	0	59,583	0	0	0	0	0	59,583
30 to 34	0	0	170,723	352,358	0	0	0	0	0	523,081
35 to 39	0	99,940	131,154	1,335,992	751,152	0	0	0	0	2,318,238
40 to 44	0	79,173	431,587	1,460,384	1,858,458	635,444	152,309	0	0	4,617,355
45 to 49	0	136,419	931,799	2,153,934	2,646,732	1,524,878	579,302	187,970	0	8,161,034
50 to 54	0	140,236	1,383,935	3,094,522	4,216,312	3,531,506	721,103	68,720	0	13,156,334
55 to 59	0	222,628	1,625,830	4,098,162	3,575,120	1,906,103	601,732	335,594	0	12,365,169
60 to 64	0	169,926	1,822,727	2,497,097	2,159,811	1,149,235	374,276	316,464	0	8,489,536
65 & up	0	77,315	875,830	1,294,704	1,493,010	363,763	307,636	171,722	0	4,583,980
Total	\$ 0	\$ 925,637	\$ 7,373,585	\$ 16,346,736	\$ 16,700,595	\$ 9,110,929	\$ 2,736,358	\$ 1,080,470	\$ 0	\$ 54,274,310



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - School Plan C

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	0	2	1	0	0	0	0	0	0	3
25 to 29	0	12	5	0	0	0	0	0	0	17
30 to 34	4	18	22	1	0	0	0	0	0	45
35 to 39	4	46	25	0	0	0	0	0	0	75
40 to 44	3	68	52	0	0	0	0	0	0	123
45 to 49	0	100	50	0	0	0	0	0	0	150
50 to 54	4	91	68	2	0	0	0	0	0	165
55 to 59	2	72	74	1	0	0	0	0	0	149
60 to 64	0	74	57	1	0	0	0	0	0	132
65 & up	0	54	30	0	0	0	0	0	0	84
Total	17	537	384	5	0	0	0	0	0	943

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 0	\$ 54,858	\$ 42,134	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 96,992
25 to 29	0	400,839	190,364	0	0	0	0	0	0	591,203
30 to 34	83,763	558,913	1,004,872	59,993	0	0	0	0	0	1,707,541
35 to 39	67,405	1,413,950	1,161,775	0	0	0	0	0	0	2,643,130
40 to 44	39,582	1,975,815	2,333,283	0	0	0	0	0	0	4,348,680
45 to 49	0	2,629,012	2,153,478	0	0	0	0	0	0	4,782,490
50 to 54	33,860	2,394,280	2,856,206	97,231	0	0	0	0	0	5,381,577
55 to 59	31,883	2,005,845	3,032,481	37,836	0	0	0	0	0	5,108,045
60 to 64	0	2,085,917	2,427,353	61,902	0	0	0	0	0	4,575,172
65 & up	0	1,567,957	1,284,977	0	0	0	0	0	0	2,852,934
Total	\$ 256,493	\$ 15,087,386	\$ 16,486,923	\$ 256,962	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 32,087,764



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - School Plan D

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	0	3	0	0	0	0	0	0	0	3
25 to 29	0	8	9	0	0	0	0	0	0	17
30 to 34	0	24	16	0	0	0	0	0	0	40
35 to 39	1	27	18	1	0	0	0	0	0	47
40 to 44	1	44	33	0	1	0	0	0	0	79
45 to 49	1	52	26	0	0	0	0	0	0	79
50 to 54	1	81	49	4	0	0	0	0	0	135
55 to 59	0	95	47	0	0	0	0	0	0	142
60 to 64	0	65	44	2	1	0	0	0	0	112
65 & up	0	48	28	0	0	0	0	0	0	76
Total	4	447	270	7	2	0	0	0	0	730

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 0	\$ 119,120	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 119,120
25 to 29	0	305,046	445,194	0	0	0	0	0	0	750,240
30 to 34	0	846,215	901,916	0	0	0	0	0	0	1,748,131
35 to 39	3,143	945,088	998,775	62,809	0	0	0	0	0	2,009,815
40 to 44	8,689	1,501,971	1,534,250	0	59,443	0	0	0	0	3,104,353
45 to 49	14,770	1,620,156	1,240,397	0	0	0	0	0	0	2,875,323
50 to 54	5,236	2,428,016	2,206,991	229,845	0	0	0	0	0	4,870,088
55 to 59	0	2,869,607	2,164,130	0	0	0	0	0	0	5,033,737
60 to 64	0	2,069,500	2,040,567	92,783	43,647	0	0	0	0	4,246,497
65 & up	0	1,347,973	1,088,179	0	0	0	0	0	0	2,436,152
Total	\$ 31,838	\$ 14,052,692	\$ 12,620,399	\$ 385,437	\$ 103,090	\$ 0	\$ 0	\$ 0	\$ 0	\$ 27,193,456



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - School Plan E

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	34	5	0	0	0	0	0	0	0	39
25 to 29	45	25	0	0	0	0	0	0	0	70
30 to 34	75	30	0	0	0	0	0	0	0	105
35 to 39	90	41	0	0	0	0	0	0	0	131
40 to 44	146	57	0	0	0	0	0	0	0	203
45 to 49	133	65	0	0	0	0	0	0	0	198
50 to 54	122	77	0	0	0	0	0	0	0	199
55 to 59	124	77	0	0	0	0	0	0	0	201
60 to 64	73	52	0	0	0	0	0	0	0	125
65 & up	43	10	0	0	0	0	0	0	0	53
Total	885	439	0	0	0	0	0	0	0	1,324

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 983,602	\$ 199,973	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,183,575
25 to 29	1,512,846	872,015	0	0	0	0	0	0	0	2,384,861
30 to 34	2,486,266	1,236,956	0	0	0	0	0	0	0	3,723,222
35 to 39	2,771,954	1,565,256	0	0	0	0	0	0	0	4,337,210
40 to 44	4,486,287	1,912,266	0	0	0	0	0	0	0	6,398,553
45 to 49	4,149,049	2,346,177	0	0	0	0	0	0	0	6,495,226
50 to 54	3,804,104	2,483,010	0	0	0	0	0	0	0	6,287,114
55 to 59	4,020,624	2,781,440	0	0	0	0	0	0	0	6,802,064
60 to 64	2,394,605	1,731,281	0	0	0	0	0	0	0	4,125,886
65 & up	1,379,524	422,690	0	0	0	0	0	0	0	1,802,214
Total	\$ 27,988,861	\$ 15,551,064	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 43,539,925



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX A - MEMBERSHIP INFORMATION

Distribution of Active Participants - - Total

COUNTS BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	127	44	1	0	0	0	0	0	0	172
25 to 29	272	384	66	1	0	0	0	0	0	723
30 to 34	290	505	339	57	5	0	0	0	0	1,196
35 to 39	268	474	392	237	98	3	0	0	0	1,472
40 to 44	292	503	392	235	277	90	3	0	0	1,792
45 to 49	235	501	362	239	305	179	49	2	2	1,872
50 to 54	243	501	461	317	337	263	107	22	22	2,251
55 to 59	195	446	450	327	307	194	53	43	43	2,015
60 to 64	108	341	390	292	247	97	31	29	29	1,535
65 & up	61	197	220	125	91	27	17	17	17	755
Total	2,091	3,896	3,073	1,830	1,667	853	260	113	113	13,783

TOTAL SALARY BY AGE/SERVICE

Age	Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up		
Under 25	\$ 5,825,123	\$ 2,085,151	\$ 42,134	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 7,952,408
25 to 29	15,360,092	20,999,257	3,774,100	59,583	0	0	0	0	0	40,193,032
30 to 34	15,929,780	30,188,498	21,890,613	4,179,195	348,997	0	0	0	0	72,537,083
35 to 39	15,274,634	29,183,802	26,944,781	16,679,401	6,720,775	200,251	0	0	0	95,003,644
40 to 44	14,850,940	28,828,303	26,812,417	17,811,596	21,208,479	6,712,100	220,841	0	0	116,444,676
45 to 49	11,170,512	27,359,817	22,584,044	17,086,977	22,963,585	15,253,406	4,136,775	187,970	187,970	120,743,086
50 to 54	11,774,104	23,031,022	26,075,957	20,783,022	25,553,788	22,546,240	10,489,210	2,058,677	2,058,677	142,312,020
55 to 59	9,393,812	20,313,430	22,002,838	18,899,055	22,645,119	16,186,299	4,472,425	4,049,792	4,049,792	117,962,770
60 to 64	4,687,140	14,416,599	19,901,419	18,734,689	17,253,801	7,983,553	2,514,859	2,765,258	2,765,258	88,257,318
65 & up	2,615,430	7,697,757	9,893,566	7,341,722	6,126,255	1,921,670	1,336,892	1,557,732	1,557,732	38,491,024
Total	\$ 106,881,567	\$ 204,103,636	\$ 179,921,869	\$ 121,575,240	\$ 122,820,799	\$ 70,803,519	\$ 23,171,002	\$ 10,619,429	\$ 10,619,429	\$ 839,897,061



**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

A. Long-Term Assumptions Used to Determine System Costs and Liabilities

1. Demographic Assumptions

a. Healthy Mortality

Annual Deaths Per 10,000 Members Mortality Projected to 2023		
Age	Male	Female
50	47	36
55	61	41
60	84	49
65	113	65
70	169	102
75	277	179
80	487	328
85	868	616
90	1,490	1,168
95	2,280	1,910
100	3,207	2,847

The PubG-2010 Healthy Annuitant Head-Count Weighted Mortality Table for males and females, respectively, projected using the MP-2020 model, with an ultimate rate of 0.85% for ages 20-80 grading down to an ultimate rate of 0% for ages 114-120 and convergence to the ultimate rate in the year 2027. The valuation uses fully generational projection of mortality improvements. Sample rates shown are those projected through the valuation date.

5% of pre-retirement deaths are assumed to be service connected.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

b. Disabled Mortality

Annual Deaths Per 10,000 Members Mortality Projected to 2023		
Age	Male	Female
45	115	96
50	159	138
55	214	178
60	281	214
65	341	234
70	402	278
75	511	387
80	728	594

The PubG-2010 Disabled Head-Count Weighted Annuitant Mortality Table for males and females, respectively, projected using the MP-2020 model, with an ultimate rate of 0.85% for ages 20-80 grading down to an ultimate rate of 0% for ages 114-120 and convergence to the ultimate rate in the year 2027. The valuation uses fully generational projection of mortality improvements. Sample rates shown are projected through the valuation date.

c. Active Separation From Service Due to Death

Annual Deaths Per 10,000 Members Mortality Projected to 2023		
Age	Male	Female
20	4	2
25	4	2
30	6	3
35	9	4
40	11	5
45	12	6

The PubG-2010 Employee Head-Count Weighted Mortality Table for males and females, respectively, projected using the MP-2020 model, with an ultimate rate of 0.85% for ages 20-80 grading down to an ultimate rate of 0% for ages 114-120 and convergence to the ultimate rate in the year 2027. The valuation uses fully generational projection of mortality improvements. Sample rates shown are those projected through the valuation date.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

d. Termination of Employment (Prior to Normal Retirement Eligibility)

Annual Termination Rates Per 1,000 Members - County	
Service	Termination
0	162
5	71
10	35
15	15
20	6
25	2
30	0

Annual Termination Rates Per 1,000 Members - Schools	
Service	Termination
0	281
5	68
10	36
15	18
20	9
25	7
30	0

It is assumed that members who terminate before the earlier of age 45 or with age plus service equal to 60 elect to receive a refund of contributions instead of vested benefits. Termination rates drop to zero three years prior to approaching Rule of 80 (or Rule of 85 for Plans C, D, and E) retirement.

e. Disability

Annual Disabilities Per 10,000 Members *		
Age	Male	Female
20	1	1
25	1	1
30	1	1
35	1	1
40	1	1
45	4	3
50	7	6
55	11	9
60	13	11

* 20% of disabilities are assumed to be service connected. Of these, 31% are assumed to receive Workers' Compensation benefits.

No disability is assumed to occur once members reach eligibility for retirement.

FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023

APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

f. Retirement/DROP

Annual Retirements/DROPs Per 1,000 Eligible Members	
Age	Normal
50	300
51	250
52	250
53	250
54	250
55	250
56	250
57	250
58	250
59	250
60	250
61	275
62	300
63	350
64	275
65	300
66	275
67	250
68	200
69	200
70	250
71	250
72	250
73	250
74	250
75	1,000

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

g. Deferred Retirement Option Program (DROP)

Retirees are assumed to enter DROP instead of immediate retirement in accordance with the rates below. DROP participants are assumed to remain in DROP for three years and receive interest at 5% per annum on their DROP deferrals.

Annual DROP entrances per 100 Eligible Members (Male and Female)	
Age	DROP
50	70
55	68
60	63
65	30
70	30
75	30

h. Merit/Seniority Salary Increase (in addition to General Wage Increases)

Merit/Seniority Salary Increases - County	
Service	Increase
0	2.30%
5	2.45
10	1.85
15	1.55
20	1.45
25	1.20
30	0.90

Merit/Seniority Salary Increases - Schools	
Service	Increase
0	7.50%
5	3.25
10	2.50
15	2.00
20	1.50
25	0.50
30	0.00

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

i. Family Composition

For purposes of valuing the pre-retirement death benefit, an assumption is made that 80% of employees are married at death while active and that the female spouse is three years younger than the male spouse.

j. Sick Leave Credit

Unused sick leave balances as reported for each active member are used as of the valuation date. Future sick leave accruals are assumed to accrue at 100% of each participant's annual average but are capped at 124 hours per year for members hired on or after January 1, 2013.

2. Economic Assumptions

a. Rate of Investment Return:	6.75%
b. Rate of General Wage Increase:	2.25%*
c. Rate of Increase in Cost of Living:	2.10%**
d. Rate of Increase in Total Payroll (for Amortization):	2.25%
e. Administrative Expenses as a Percentage of Payroll:	0.30%

* General Wage Increase assumption applies for projecting contributions and developing Social Security benefits.

** Benefit increases are limited to 4% per year.

3. Rationale for Assumptions

The actuarial assumptions were adopted by the Board of Trustees upon the recommendation of the actuary, based on an experience study performed in 2021. The results of this study were presented in a report dated October 2021 and are incorporated into this report by reference.

4. Disclosure for Reasonable Actuarially Determined Contribution Method (ADC)

The rates determined in the ratemaking process and shown in Table I-2 meet the requirements of a reasonable ADC as defined by the Actuarial Standards of Practice. The actuarial methods used to determine the reasonable ADC have been selected to balance benefit security, intergenerational equity, and stability of contributions. The selection of the actuarial methods has taken into account the demographics of plan members, the funding goals and objectives of the Board, and the need to accumulate assets to make benefit payments when due.

5. Changes Since Last Valuation

None

APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Funding Method and LDROM Cost Method

The Entry Age Normal Cost method is used to determine costs. Under this method, the employer contribution has three components: the normal cost, the payment toward the unfunded actuarial liability, and the expense rate.

The normal cost is a level percent of pay cost, which, along with the member contributions, will pay for projected benefits at retirement for each plan participant.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The expense rate is added to cover the System's administrative expenses.

The employer's total contribution rate is equal to the normal cost rate plus rate changes due to amendments passed or assumption changes adopted since July 1, 2001 plus a 15-year level percent of pay amortization of the UAL that existed on June 30, 2018 other than prior unamortized amendment and assumption change bases. In the future, additional amortization bases will be created each year. Finally, the rate includes an expense rate.

2. Actuarial Value of Assets

For purposes of determining the County contribution to the System, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value, and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

3. Valuation Timing

All participant data is collected as of the December 31 prior to the valuation date. Initial valuation runs are performed as of December 31, and the resulting liabilities are then adjusted for six months to the June 30 valuation date. The adjustment takes into account the actual July 1 cost-of-living increase and any other changes that are known to have occurred in that six-month period.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

4. Statement of Disclosures Regarding Models Used

Cheiron utilizes and relies on the actuarial software program known as ProVal for the intended purpose of calculating liabilities and projected benefit payments. ProVal is a product of Winklevoss Technologies.

The projected expected results of future valuations in this report were developed using P-Scan, our proprietary tool for the intended purpose of developing projections.

As part of the review process for this actuarial valuation, we have performed a number of tests to verify that the results are reasonable and appropriate. We are not aware of any material inconsistencies, unreasonable output resulting from the aggregation of assumptions, material limitations, or known weaknesses that would affect this report.

6. Changes Since Last Valuation and Rationale for Changes

None

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX C - SUMMARY OF PLAN PROVISIONS

1. Membership

The plan covers full-time and certain part-time County and School Board employees who are not covered by the Fairfax County Police Officers Retirement System, the Uniformed Retirement System, or the VRS. In order to join, the eligible employee must agree to make the required contributions.

Members hired prior to January 1, 2013 could elect to join Plan A or Plan B. Members hired on or after January 1, 2013 and prior to July 1, 2019 may elect to join Plan C or Plan D. Members hired on or after July 1, 2019 will join Plan E.

2. Member Contributions

Plans A and C: 4% of compensation up to Social Security wage base and 5-1/3% of compensation in excess of wage base

Plans B, D, and E: 5-1/3% of compensation

Interest is credited at the rate of 5% per year.

Member contributions are made through an “employer pick-up” arrangement, which results in deferral of the taxes on these contributions.

3. Credited Service

All service as a member plus certain purchased prior service is credited. For members who have at least five years of service, credit is allowed at the rate of one month for 172 hours of accrued unused sick leave. For those hired on or after January 1, 2013, the amount of unused sick leave that may be used is capped at 2,080 hours.

4. Average Final Compensation

Base pay and roll call pay are credited, including the “pay” at the rate of final salary during the unused sick leave period. Average Final Compensation is the average over the high 36 consecutive months (or shorter period of total service).

5. Social Security Wage Base

The amount of wages subject to Social Security (FICA) taxes (\$160,200 in 2023).

6. Social Security Breakpoint

The Social Security breakpoint is the 35-year average of Social Security wage bases ending with the year the employee attains Social Security Retirement Age.

**FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023**

APPENDIX C - SUMMARY OF PLAN PROVISIONS

7. Normal Retirement

Eligibility

For those hired before January 1, 2013:

- (i) Age 65 with five years of service, or
- (ii) Age 50 with age plus service greater than or equal to 80

For those hired on or after January 1, 2013:

- (i) Age 65 with five years of service, or
- (ii) Age 55 with age plus service greater than or equal to 85

Benefit

Plan A and C Benefits: The sum of 1.8% of average final compensation up to the Social Security breakpoint plus 2% of average final compensation in excess of the breakpoint, all multiplied by credited service, and increased by 3%.

Plan B and D Benefits: 2% of average final compensation multiplied by credited service, increased by 3%.

Plan E Benefits: 2% of average final compensation multiplied by credited service.

Plans A, B, C, and D: Pre-Social Security Retirement Age (SSRA) supplement of 1% of average final compensation up to the Social Security breakpoint times credited service and increased by 3%. This benefit is payable from normal retirement age until the participant reaches his/her SSRA (age 65, 66, or 67).

Plan E: Early Age Option of 0.5% of average final compensation up to the Social Security breakpoint times credited service. This benefit is payable from retirement age until the participant reaches his/her SSRA (age 65, 66, or 67). After SSRA, the base benefit would be reduced to account for the accelerated pre-SSRA benefit.

8. Early Retirement

Eligibility

- (i) Age 50 with 25 years of service, or
- (ii) 10 years of service with age plus service greater than or equal to 75

Benefit

Normal retirement benefit calculated using average final compensation and service at early retirement, actuarially reduced.

No pre-SSRA supplement benefit is payable.

APPENDIX C - SUMMARY OF PLAN PROVISIONS

9. DROP (Deferred Retirement Option Program)

Eligibility

All members are eligible for DROP participation upon attaining eligibility for normal service retirement. Members can only participate in DROP once, and their election is irrevocable.

Benefit

The benefit scheduled to begin at normal retirement will be credited to a separate DROP account within the Retirement System, accumulating with interest while the member continues to work for a period of 36 months. Upon completion of the three-year period, DROP participation ends, and participants must terminate employment. At that time, the participant will receive payment of the accumulated DROP benefits and begin receiving his or her monthly retirement benefit (in the same amount as determined at commencement of DROP participation, plus annual cost-of-living increases).

For those hired on or after January 1, 2013, the amount credited to the DROP account will exclude the Pre-Social Security Supplement described in item 7.

The DROP account will be credited with interest at an annual rate of 5%, compounded monthly.

Death or Disability during DROP

Non-Service-Connected: The effective date of the death or disability will be treated as the end of the DROP participation.

Service-Connected Disability: The member may elect either (1) to receive the service-connected disability benefits to which he or she would otherwise be entitled (forfeiture of DROP balance) or (2) the normal retirement benefit plus the DROP account balance.

Service-Connected Death: The beneficiary will receive payment of the accumulated DROP benefits and the regular service-connected benefit.

10. Service-Connected Disability

Eligibility

No age or service requirement

Benefit

66-2/3% of average final compensation less 100% of Virginia Workers' Compensation benefit.

FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023

APPENDIX C - SUMMARY OF PLAN PROVISIONS

11. Ordinary Disability

Eligibility

Five years of credited service

Benefit

Plan A, B, C, and D: 2% of average final compensation times years of credited service, increased by 3%; maximum is 60% of average final compensation; minimum is \$300 per year, increased by 3%.

Plan E: 2% of average final compensation times years of credited service; maximum is 60% of average final compensation; minimum is \$300 per year.

12. Service - Connected Death

Eligibility

No age or service requirement

Benefit

Lump sum payment of \$10,000 plus ordinary death benefit

13. Ordinary Death

Eligibility

Less than 15 years of service

Benefit

Return of employee contributions with interest, payable in lump sum

Eligibility

15 or more years of service

Benefit

Spouse Allowance: In lieu of the refund of contributions, the spouse of the deceased member may elect an allowance of 50% of the normal retirement benefit, based on average final compensation and service as of the date of the member's death. The allowance is payable for the life of the spouse but ceases upon the spouse's remarriage if such remarriage occurs prior to the spouse's attainment of age 60.

FAIRFAX COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION AS OF JUNE 30, 2023

APPENDIX C - SUMMARY OF PLAN PROVISIONS

14. Vesting

Eligibility

Five years of service

Benefit

Normal retirement benefit based on average final compensation and service at date of termination. Benefit is payable in full at age 65 or actuarially reduced and payable at early retirement age.

A member may withdraw his contributions with interest at termination, in which case no vested benefit is payable.

15. Withdrawal

Eligibility

Not eligible for other benefits

Benefit

Contributions with interest

16. Form of Payment

The normal form of payment is a life annuity with a guarantee that at least the amount of member contributions with interest will be paid to the retiree or beneficiaries.

A member may elect an actuarially equivalent "pop-up" Joint and Survivor benefit with choice of 50%, 66 $\frac{2}{3}$ %, 75%, or 100% continuation to the spouse.

17. Cost-of-Living Adjustment

Each July 1, benefits are increased by the lesser of 4% or the increase in the cost-of-living index. The increase is prorated for those who have not been retired for a full year.

Cost-of-living adjustments do not apply to the pre-SSRA supplement or to deferred vested benefits prior to benefit commencement.

In addition to automatic adjustments, benefits may be further increased on an ad hoc basis, if actuarial experience has been favorable.

18. Changes Since Last Valuation

None



Classic Values, Innovative Advice