CHEIRON *Classic Values, Innovative Advice*

Fairfax County Uniformed Retirement System

Actuarial Valuation as of June 30, 2022

Produced by Cheiron
November 2022

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November 16, 2022

Board of Trustees
Fairfax County Uniformed Retirement System
12015 Lee Jackson Memorial Highway, Suite 350
Fairfax, Virginia 22033

Re: Fairfax County Uniformed Retirement System
Actuarial Valuation as of June 30, 2022

Dear Members of the Board:

At your request, we have conducted our annual actuarial valuation of the Fairfax County Uniformed Retirement System (the "System) as of June 30, 2022. 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 Uniformed Retirement System. This report is for the use of the Fairfax County Uniformed 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 County contribution for Fiscal Year 2024 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 Uniformed 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.

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, MAAA, EA
Principal Consulting Actuary

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

FOREWORD

Cheiron has performed the Actuarial Valuation of the Fairfax County Uniformed Retirement System as of June 30, 2022. 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 2024, 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.

FOREWORD

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.

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) 2024, as calculated under this method, increased from 39.31% for FYE 2023 to 46.79% of payroll.

This valuation contains information reported in the June 30, 2022 Annual Comprehensive Financial Report (ACFR) of the System. Additional information regarding GASB Statement No. 67 can be found in a separate report.

A change was made in this year's valuation to change the way in which the 15-year amortization is performed. For amortization bases that have been in the 2016 through 2021 valuations the process measured the new base as of the valuation date, adjusted it to the eventual payment date and spread the resulting amount over a 14-year period. As such, the 15-year period was measured from the valuation date rather than from the date of first payment. Effective with this valuation the 15 amortization period is starting with the date of payment. This interpretation has been applied retroactively to the 2016-2021 layers as well as for the new layer develop herein.

Trends

The System underperformed the investment assumption during the Fiscal Year ending in 2022, causing an actuarial loss on the asset side of the System. The actual return on a market value basis was -9.02%. On an actuarial value basis, the assets returned 2.92% compared with an assumed rate of return of 6.75%. The actuarial loss recognized for funding purposes was $78 million.

The measurement of liabilities produced a loss this year in the amount of $137 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 15.1% for active participants who were in both the June 30, 2021 and June 30, 2022 valuations. This was greater than expected based on the actuarial assumption, creating a liability loss of $97 million.

- The valuation assumed a 2.10% cost-of-living adjustment in 2021 for benefits in pay status. The actual CPI-based COLA was 4.00% last year, creating a liability loss of $26 million.

SECTION I – BOARD SUMMARY

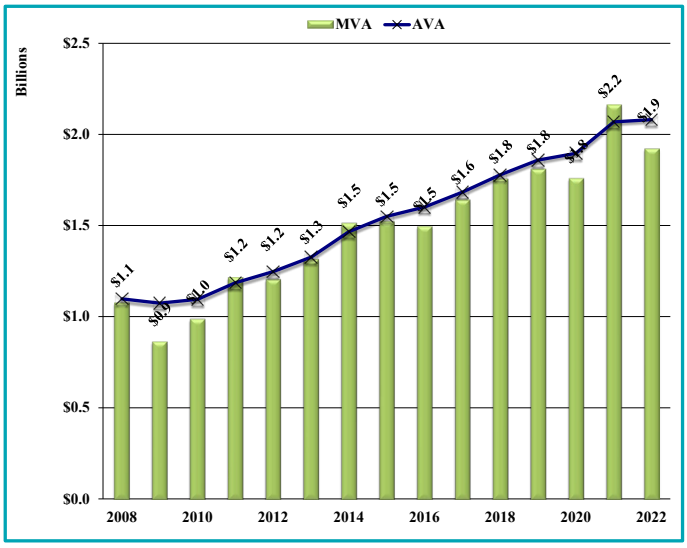
- Finally, there was a liability loss of $14 million that is made up of various other causes such as members terminating, retiring, dying, or becoming disabled in a way contrary to the assumption.

The combination of liability and investment experience, together with County plus member contributions over the last year, led to the System's funding ratio (Actuarial Value of Assets over actuarial accrued liability) decreasing from 84.7% at June 30, 2021 to 78.2% at June 30, 2022.

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.

SECTION I – BOARD SUMMARY

Growth in Assets

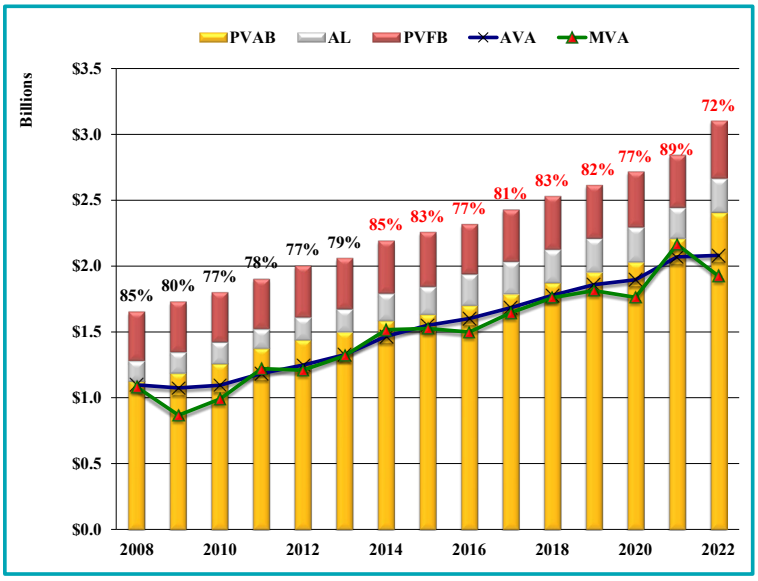


There was an decrease in the Market Value of Assets (MVA) (amount in billions shown above bars) over last year due to a return of -9.02%. The Actuarial Value of Assets (AVA) increased due to the recognition of past asset gains. The System recognized only a portion of the asset losses this year, and there remains $156.9 million in unrecognized losses that will be phased in over the next few years.

Over the period of July 1, 2008 to June 30, 2022, the System's assets returned approximately 5.68% per year measured at actuarial value, compared to the valuation assumption of 6.75% per year.

Assets and Liabilities

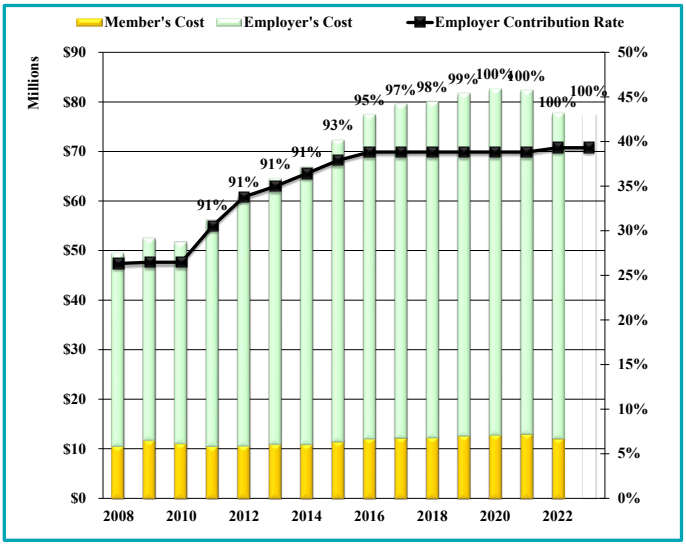
The three colored bars represent the three different measures of liability mentioned in this report. The amount represented by the top of the red bars, the Present Value of Future Benefits (PVFB), is the amount needed to provide all benefits for the current participants and their beneficiaries. If the System had assets equal to the PVFB, no contributions would, in theory, be needed for the current members. 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.



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).

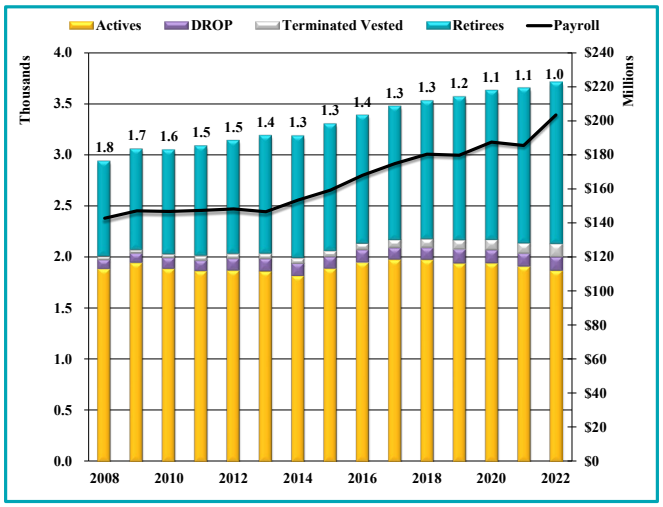


The member contribution rate is set by the County Ordinance. The County contribution rate is set by the actuarial process, as constrained by the corridor method. Note there is a lag in the rate shown. For example, the 2022 value is the rate prepared by the 2020 valuation and implemented for the period June 30, 2021 to June 30, 2022. 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 1.8 actives to each inactive in 2008 to 1.0 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.

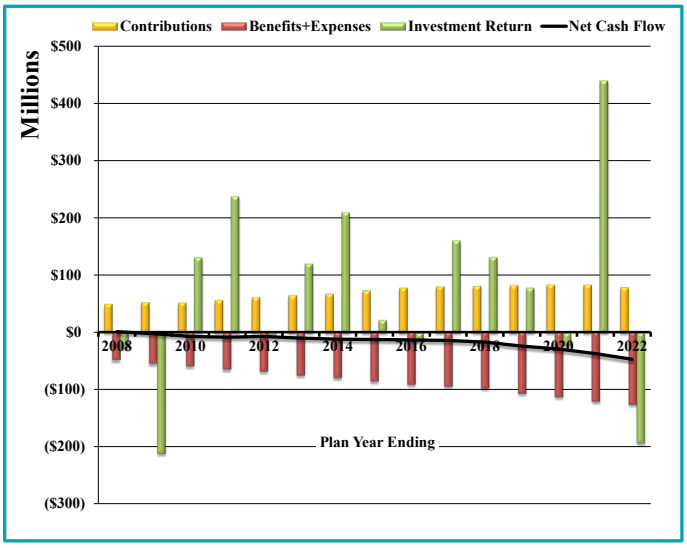
The chart also shows the number of DROP participants. Neither County nor member contributions are made on their behalf, which leads to a slightly lower growth in effective covered payroll for this System.



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.



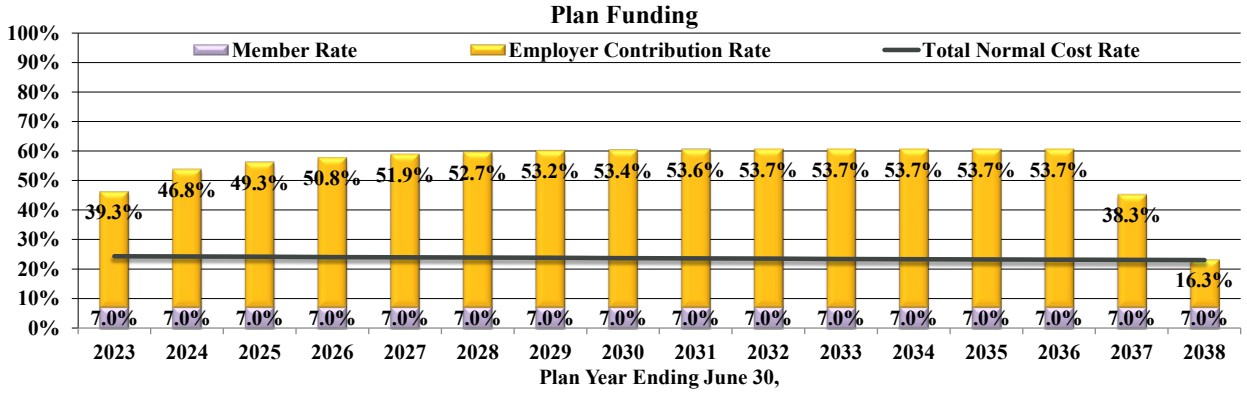
Future Outlook

Base-line Projections

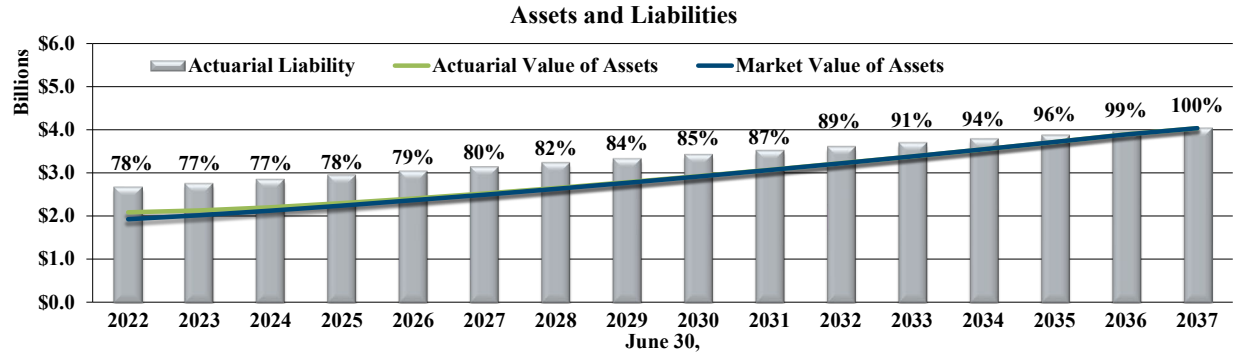
The two graphs below show the expected progress of the System over the next 15 years, assuming the System's assets earn 6.75% on their *market value.*

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 slowly increases over the entire period and reaches 100% funded by 2037.



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 an 8.49% return per year since 1980. 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.

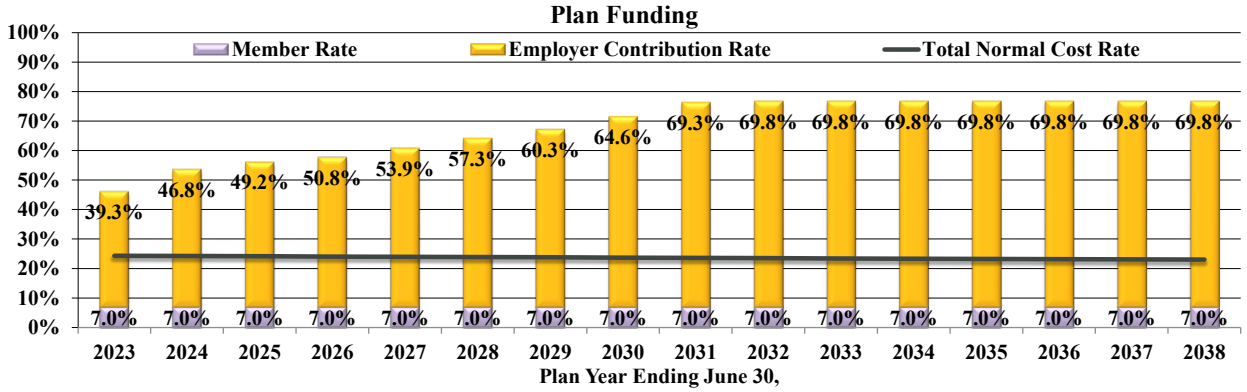
Table I-1

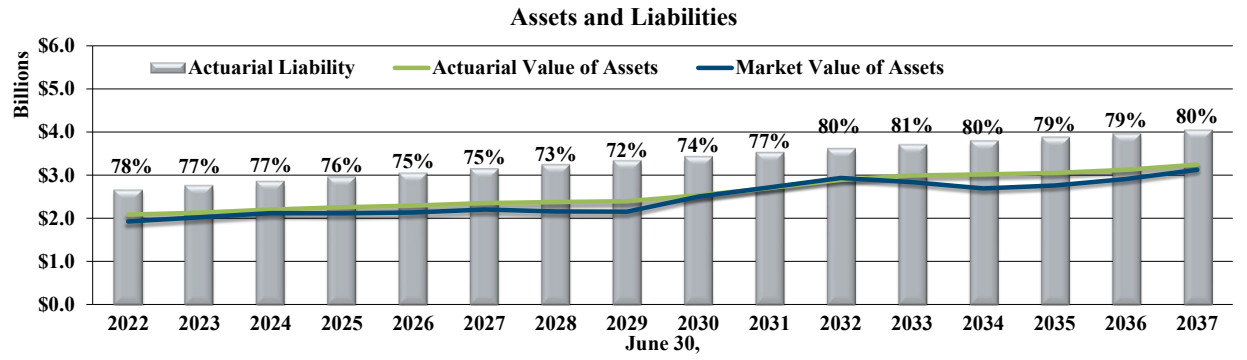
Fiscal Year Ending June 30,	Average 4.25%	Average 6.75%	Average 9.25%
2023	6.92%	1.59%	(6.60)%
2024	6.30	6.42	3.79
2025	0.92	16.97	17.40
2026	2.23	29.26	31.81
2027	4.41	18.67	(9.73)
2028	(0.94)	4.86	9.72
2029	0.73	10.28	15.06
2030	16.84	3.55	(13.19)
2031	8.75	14.85	14.44
2032	8.50	(1.19)	14.08
2033	(2.86)	1.30	30.03
2034	(4.50)	(9.12)	24.17
2035	3.45	3.90	3.20
2036	6.52	(1.34)	6.62
2037	8.42	7.08	9.47
Average	**4.25%**	**6.75%**	**9.25%**

SECTION I – BOARD SUMMARY

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

Under this scenario, the County contribution rate increases from 39% to about 70% of payroll. The System's funding drops to as low as 72% on an actuarial value basis, even with the ramping up of contributions.

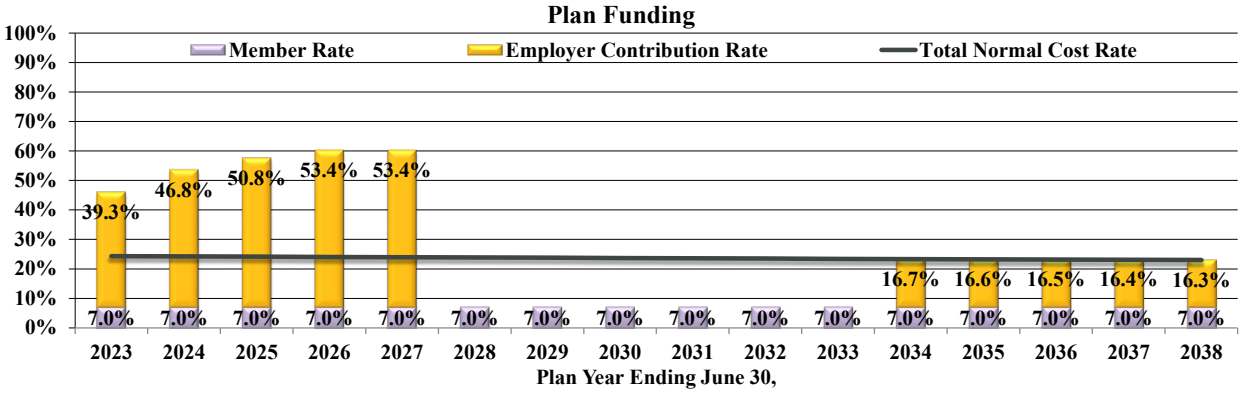


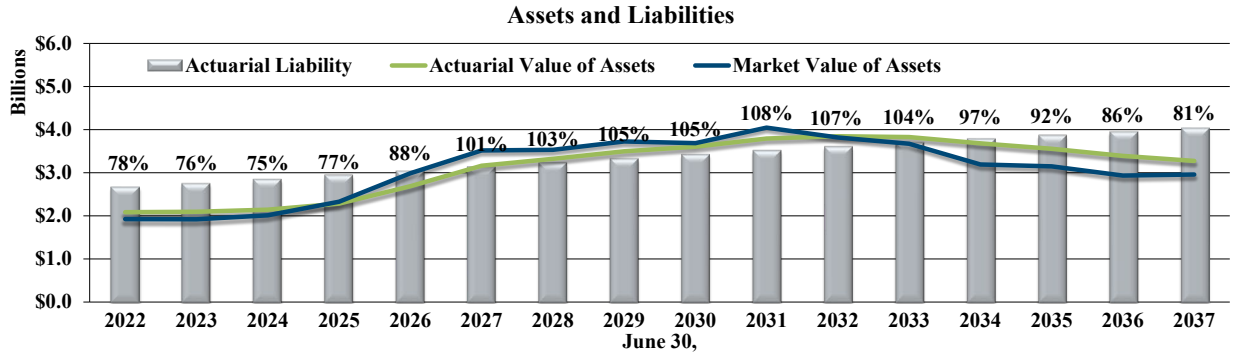


SECTION I – BOARD SUMMARY

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 remains relatively level over the next few years as the asset losses are phased in and the funding ratio remains below 100%. After that time, the contribution drops dramatically as returns continue to push the funded percent over 100%. The funding ratio again decreases with the lower than average returns to 81%.

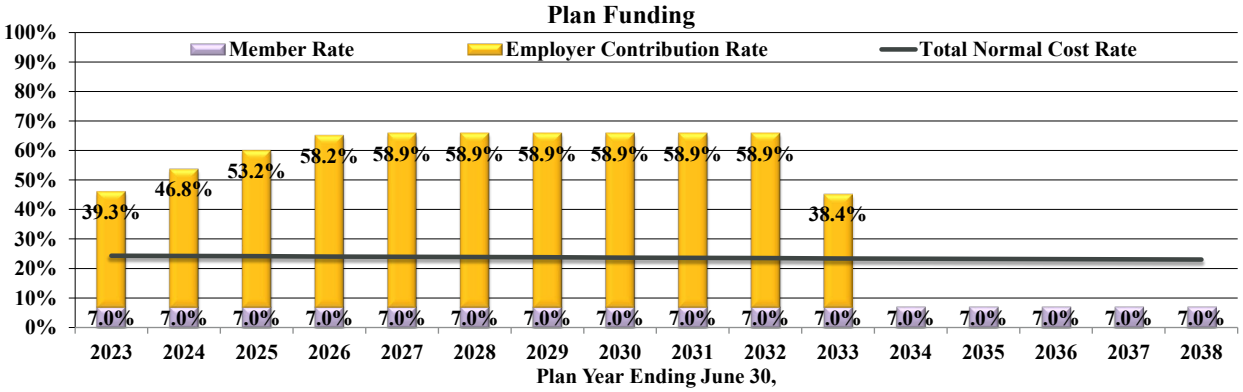


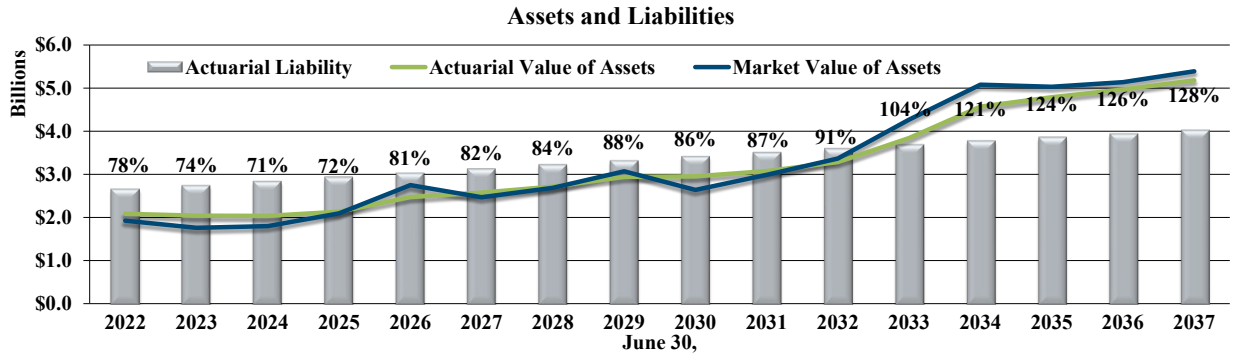


SECTION I – BOARD SUMMARY

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

Similar to the prior scenario, the County contribution rate increases in the early years due to the assumed underperformance. The highest contribution rate of 58.9% is maintained until the System reaches full funding in 2033. By the end of the projection period, the member contribution rate is the only amount being contributed.





SECTION I – BOARD SUMMARY

Table I-2
Summary of Prinicpal Plan Results

Valuation as of:	June 30, 2021	June 30, 2022	% Chg.
Participant Counts			
Actives (excluding DROP)	1,909	1,868	(2.1)%
DROPs	128	136	6.3%
Terminated Vesteds	97	124	27.8%
In Pay Status	1,518	1,583	4.3%
Total	3,652	3,711	1.6%
Annual Salaries of Active Members	$ 185,544,167	$ 203,534,950	9.7%
Annual Retirement Allowances for Retired Members and Beneficiaries (Base amount only – not supplements)	$ 100,483,234	$ 109,528,930	9.0%
Assets and Liabilities			
Actuarial Liability (AL)	$ 2,442,188,474	$ 2,663,244,986	9.1%
Assets for Valuation Purposes (AVA)	2,069,254,787	2,081,470,660	0.6%
Unfunded Actuarial Liability	$ 372,933,687	$ 581,774,326	56.0%
Actuarial Value Funding Ratio (AVA / AL)	84.7%	78.2%	
Market Value Funding Ratio (MVA / AL)	88.7%	72.3%	
Present Value of Accrued Benefits	$ 2,208,596,473	$ 2,406,573,153	9.0%
Market Value of Assets	2,165,025,555	1,924,536,685	(11.1)%
Unfunded Accrued Liability (not less than $0)	$ 43,570,918	$ 482,036,468	1006.3%
Accrued Benefit Funding Ratio	98.0%	80.0%	
Contributions as a Percentage of Payroll	**Fiscal Year 2023**	**Fiscal Year 2024**	
Employer Normal Cost	17.20%	17.23%	
UAL Amortization	21.76%	29.21%	
Administrative Expense	0.35%	0.35%	
County Rate	39.31%	46.79%	

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 Plan, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

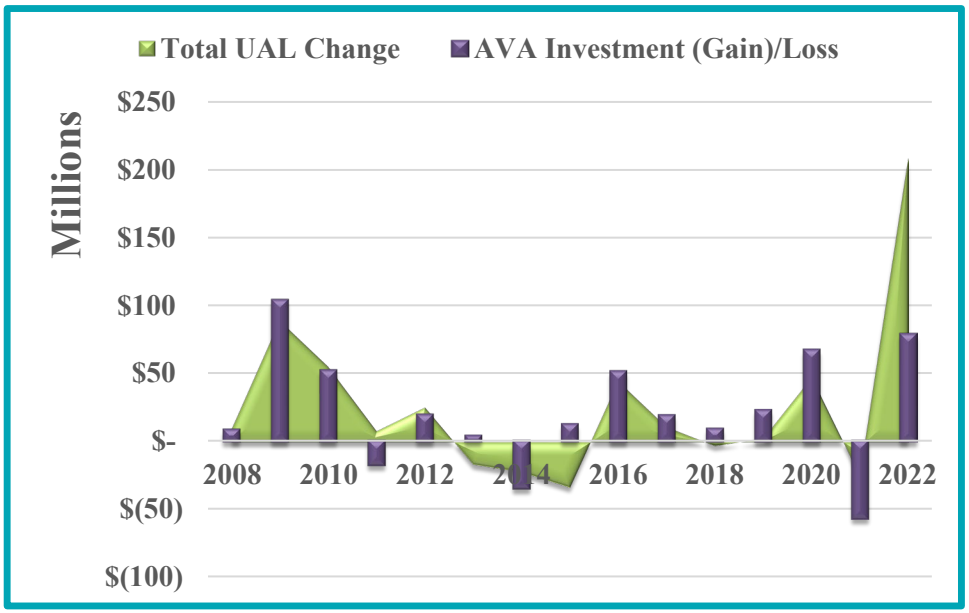
The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While we believe it is unlikely that the System by itself would become unaffordable, the contributions needed to support the System may differ significantly from expectations. While there 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.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

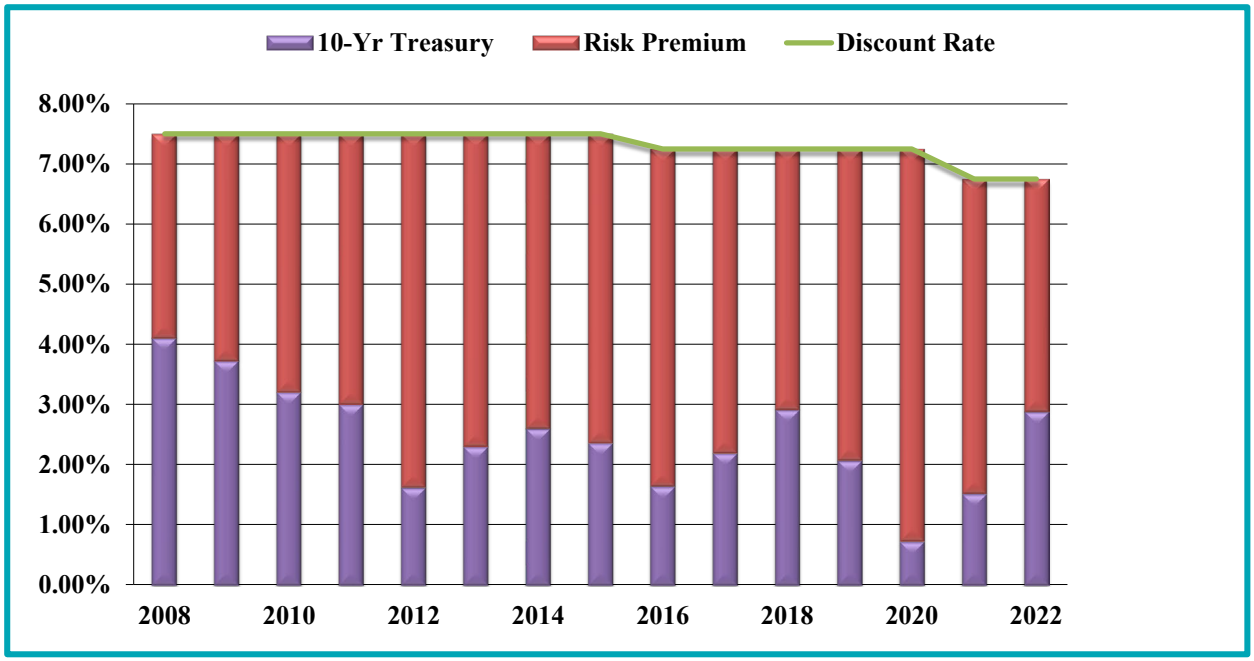
Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential 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.

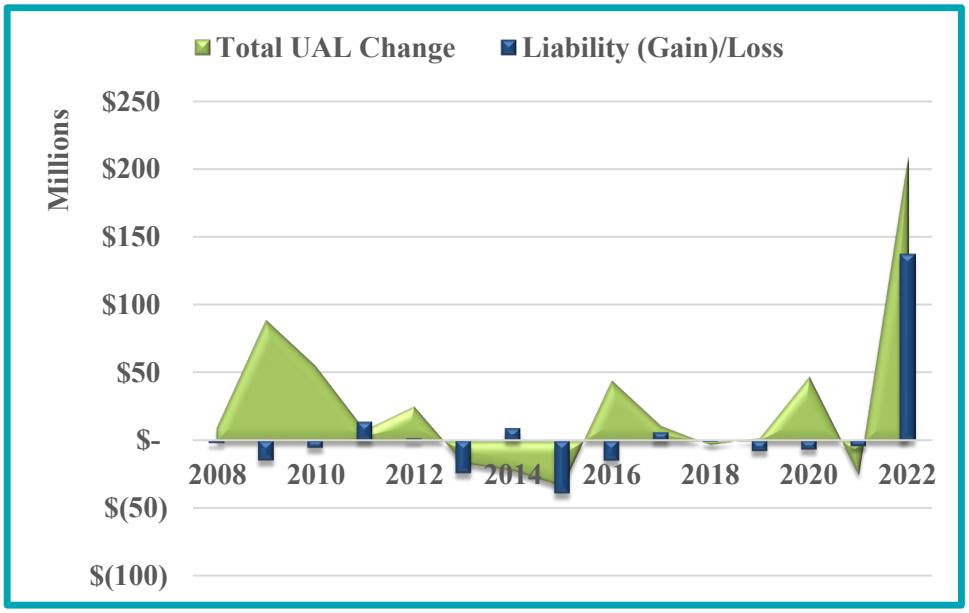
SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

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 System'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 have 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.



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 fifteen 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 plan can collect. Historically, the System 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.

Plan Maturity Measures

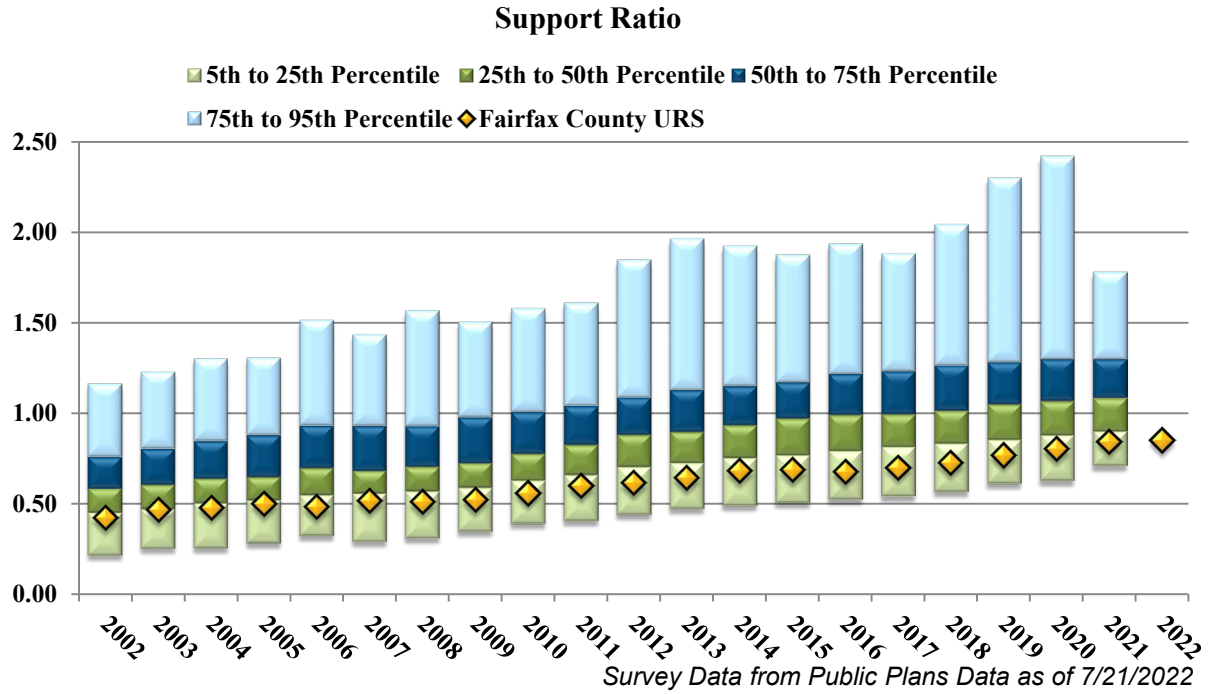
The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of this System compared to other plans and how the maturity has changed over time.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

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.

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 plan is usually proportional to the number of active members, so a relatively high number of inactives compared to actives indicates a larger plan relative to its revenue base as well.



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.

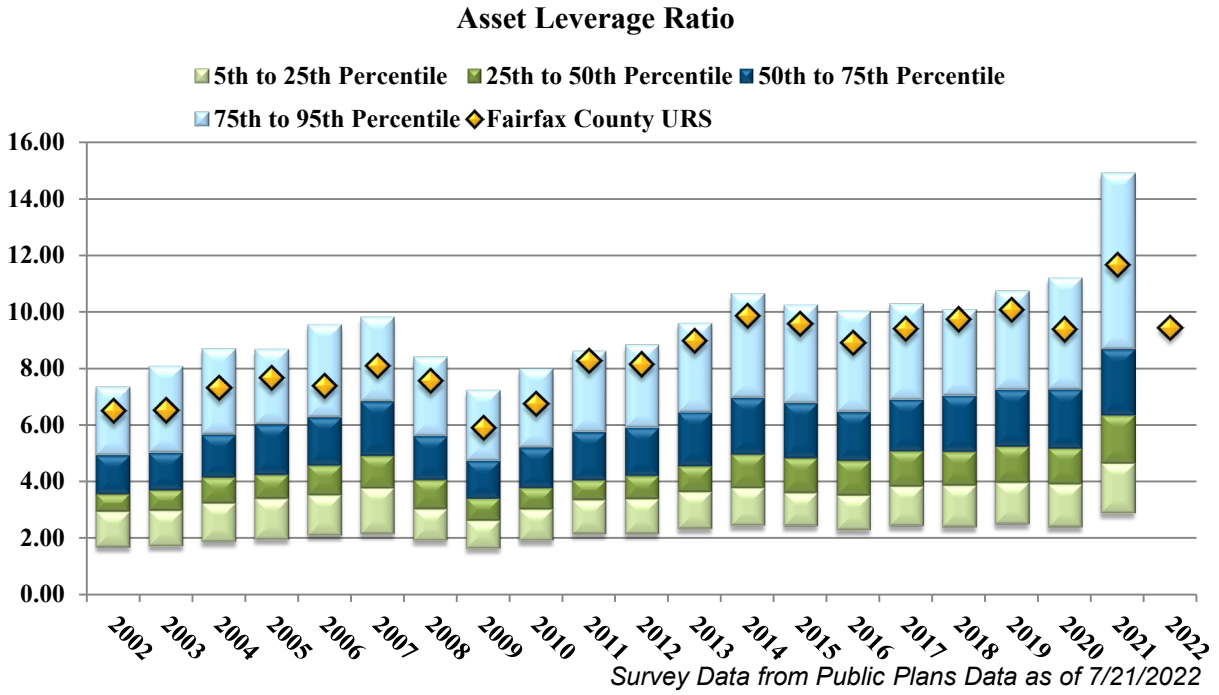
Whereas the support ratios for the plans as a whole have increased over the period as they mature, URS's support ratio has increased over the period and is among the 5th to 25th percentile of the Public Plans Database for most years.

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.



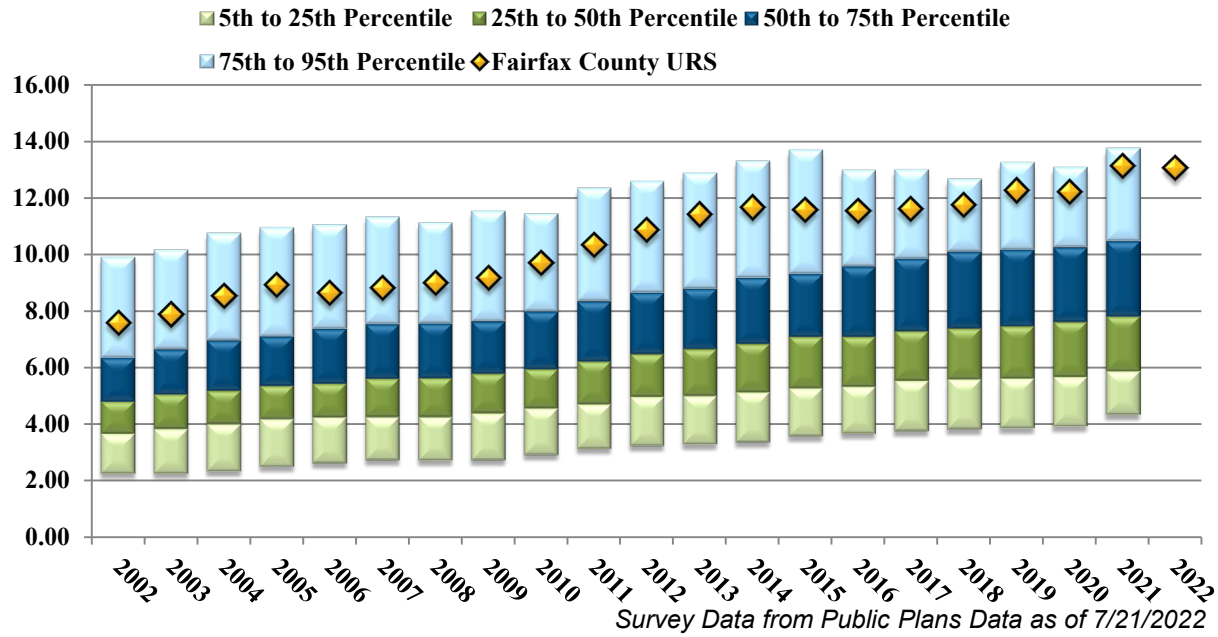
The chart above shows the distribution from the 5th to 95th percentile of asset leverage ratios for the Plans in the Public Plans Database. The gold diamonds show how the System compares.

The System's asset leverage ratio has historically been in the 75th to 95th percentile compared to other plans. This asset leverage ratio will continue to increase as the System approaches 100% funded. The large swings in the 2020-2022 range were due to large investment returns and losses during that period and a higher than expected increase in the 2022 payroll.

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 liability compared to the expected liability, the liability loss would be equivalent to 50% of payroll.

Liability Leverage Ratio



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 75th to 95th 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 over 10.0 beginning in 2011 with the ratio currently around 13.1 in 2022.

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, 2021 and June 30, 2022,
- 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%.

SECTION III – ASSETS

Table III-1
Statement of Assets at Market Value

	June 30, 2021	June 30, 2022
Assets		
Equity in County's Pooled Cash, Contributions Receivable and Other Assets	$ 7,343,103	$ 5,037,971
Accrued Interest and Dividends Receivable	3,103,469	3,218,660
Receivable from Sale of Investments	2,078,729	1,077,710
Capital Assets	8,660	9,280
US Government Obligations	65,457,530	59,157,520
Asset-Backed Securities	105,861,291	76,268,427
Other Bonds and Notes	113,880,957	90,176,710
Common and Preferred Stock	387,526,678	429,147,750
Pooled and Mutual Funds	1,308,801,657	1,088,387,742
Short-Term Investments	182,195,144	185,481,464
Cash Collateral Received Under Securities Lending Agreements	19,283,770	11,217,906
Total Assets	$ 2,195,540,988	$ 1,949,181,140
Liabilities		
Payable for Collateral Received Under Securities Lending Agreements	$ 19,283,770	$ 11,217,906
Payable for Purchase of Investments	6,004,679	7,813,484
Accounts Payable and Accrued Expenses	5,226,984	5,613,065
Total Liabilities	$ 30,515,433	$ 24,644,455
Net Assets Available for Benefits	**$ 2,165,025,555**	**$ 1,924,536,685**

SECTION III – ASSETS

Table III-2
Changes in Market Values

Value of Assets – July 1, 2021		$ 2,165,025,555
Additions		
Contributions:		
County Contributions	$ 65,793,238	
Employee Contributions	12,071,388	
Total Contributions		$ 77,864,626
Investment Income:		
Net Appreciation (Depreciation) in Fair Value of Investments	$ (198,846,171)	
Interest	10,437,753	
Dividends	16,626,404	
Total Investment Income	$ (171,782,014)	
Investment Activity Expenses:		
Management Fees	$ (20,185,481)	
Custodian Fees	(107,559)	
Consulting Expense	(342,637)	
Allocated Administrative Expenses	(810,696)	
Total Investment Activity Expenses	$ (21,446,373)	
From Securities Lending Activities:		
Securities Lending Income	$ 233,135	
Securities Lending Expenses		
Borrowers Rebates	(75,995)	
Management Fees	0	
Net Income from Securities Lending Activities	$ 157,140	
Net Investment Income		$ (193,071,247)
Total Additions		$ (115,206,621)
Deductions		
Annuity Benefits	$ (113,718,920)	
Disability Benefits	(8,035,797)	
Survivor Benefits	(2,160,000)	
Refunds and Other Expenses	(702,593)	
Administrative Expenses	(664,939)	
Total Deductions		$ (125,282,249)
Total		
Net Increase (Decrease)		$ (240,488,870)
Value of Assets – June 30, 2022		**$ 1,924,536,685**

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 the Actuarial Value of Assets for the June 30, 2022 valuation.

Table III-3
Development of Actuarial Value of Assets
as of June 30, 2022

1.	Actuarial Value of Assets at June 30, 2021	**$**	**2,069,254,787**
2.	Amount in (1) with Interest to June 30, 2022		2,208,929,485
3.	Employer and Member Contributions for the Plan Year Ended June 30, 2022		77,864,626
4.	Interest on Contributions Assuming Received Uniformly Throughout the Year to June 30, 2022		2,585,021
5.	Disbursements from Trust Except Investment Expenses, July 1, 2021 Through June 30, 2022		(125,282,249)
6.	Interest on Disbursements Assuming Payments Made Uniformly Throughout the Year to June 30, 2022		(4,159,235)
7.	Expected Value of Assets at June 30, 2022 = (2) + (3) + (4) + (5) + (6)		2,159,937,648
8.	Market Value of Assets at June 30, 2022		1,924,536,685
9.	Excess of (8) Over (7)	$	(235,400,963)
10.	Actuarial Value of Assets at June 30, 2022 = (7) + 33-1/3% of (9)	**$**	**2,081,470,660**

SECTION III – ASSETS

Investment Performance

The Market Value of Assets (MVA) returned -9.02% during 2022, which is less than the assumed 6.75% return. A return of 2.92% 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 Index[1]
1998	16.2%	10.8%	30.2%	10.5%
1999	9.6%	13.4%	22.7%	3.1%
2000	5.2%	10.4%	7.3%	4.6%
2001	(2.8)%	5.7%	(14.8)%	11.2%
2002	(4.9)%	2.3%	(18.0)%	8.6%
2003	5.4%	3.3%	0.3%	10.4%
2004	14.3%	6.7%	19.1%	0.3%
2005	10.4%	7.9%	6.3%	6.8%
2006	10.5%	8.8%	8.6%	(0.8)%
2007	17.8%	11.8%	20.6%	6.1%
2008	(2.5)%	6.7%	(13.1)%	7.1%
2009	(19.6)%	(1.9)%	(26.2)%	5.5%
2010	15.2%	2.6%	14.4%	9.5%
2011	24.1%	9.1%	30.8%	3.9%
2012	(0.3)%	5.9%	5.4%	7.5%
2013	10.0%	7.2%	20.6%	(0.1)%
2014	16.0%	10.0%	24.6%	4.4%
2015	1.4%	6.7%	7.4%	1.8%
2016	(0.9)%	4.2%	4.0%	6.0%
2017	10.8%	6.1%	17.9%	(0.3)%
2018	8.1%	6.7%	14.4%	(0.4)%
2019	4.5%	6.0%	10.4%	7.9%
2020	(1.2)%	3.6%	7.5%	8.7%
2021	25.3%	11.2%	40.8%	(0.3)%
2022	(9.0)%	2.9%	(10.6)%	(10.3)%

[1] Figures shown prior to 1987 are Salomon Brothers Long Term Bond Index.

SECTION III – ASSETS

Expected benefit payments are projected for the closed group valued at June 30, 2022. 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 39.31% for FY 2023, 46.79% for FYE 2024, 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 in the future, 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 Employer Contributions

Year Beginning July 1,	Expected Benefit Payments	Expected County Contributions
2022	$ 132,327,000	$ 80,008,000
2023	139,420,000	97,376,000
2024	143,997,000	104,848,000
2025	152,031,000	110,514,000
2026	159,736,000	115,559,000
2027	167,324,000	119,897,000
2028	175,236,000	123,652,000
2029	182,909,000	126,962,000
2030	191,738,000	130,278,000
2031	200,585,000	133,462,000

SECTION IV – LIABILITIES

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

- **Disclosure** of System liabilities at June 30, 2021 and June 30, 2022,
- 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**.

SECTION IV – LIABILITIES

Table IV-1
Liabilities/Net (Surplus)/Unfunded

	June 30, 2021	June 30, 2022
Present Value of Future Benefits		
Active Participant Benefits (excluding DROP)	$ 1,306,894,739	$ 1,432,254,677
DROP Participant Benefits	191,182,141	212,138,365
Retiree Benefits	1,327,125,571	1,436,229,037
Terminated Vested and Inactive Members	16,825,600	20,662,833
Present Value of Benefits (PVB)	**$ 2,842,028,051**	**$ 3,101,284,912**
Market Value of Assets (MVA)	$ 2,165,025,555	$ 1,924,536,685
Future Employee Contributions	114,002,206	124,854,387
Future County Contributions	563,000,290	1,051,893,840
Total Resources	**$ 2,842,028,051**	**$ 3,101,284,912**
Actuarial Accrued Liability		
Present Value of Benefits (PVB)	$ 2,842,028,051	$ 3,101,284,912
Present Value of Future Normal Costs (PVFNC)		
County Portion	285,837,371	313,185,539
Employee Portion	114,002,206	124,854,387
Actuarial Liability (AL = PVB - PVFNC)	**$ 2,442,188,474**	**$ 2,663,244,986**
Actuarial Value of Assets (AVA)	2,069,254,787	2,081,470,660
Net (Surplus)/Unfunded (AL – AVA)	**$ 372,933,687**	**$ 581,774,326**
Present Value of Accrued Benefits		
Present Value of Benefits (PVB)	$ 2,842,028,051	$ 3,101,284,912
Present Value of Future Benefit Accruals (PVFBA)	633,431,578	694,711,759
Present Value of Accrued Benefits (PVAB = PVB – PVFBA)	**$ 2,208,596,473**	**$ 2,406,573,153**
Market Value of Assets (MVA)	$ 2,165,025,555	$ 1,924,536,685
Net Unfunded, not less than $0 (PVAB – MVA)	**$ 43,570,918**	**$ 482,036,468**

SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table is 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:

- County 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 6/30/2021	$ 2,842,028,051	$ 2,442,188,474	$ 2,208,596,473
Liabilities 6/30/2022	3,101,284,912	2,663,244,986	2,406,573,153
Liability Increase (Decrease)	$ 259,256,861	$ 221,056,512	$ 197,976,680
Change Due to:			
Plan Amendment	$ 0	$ 0	$ 0
Actuarial (Gain)/Loss	*Not Calculated*	136,998,391	*Not Calculated*
Method and Assumption Change	0	0	0
Benefits Accumulated and Other Sources	259,256,861	84,058,121	197,976,680

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 (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's normal cost. This is divided by total salary to convert it to the total System's 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 this year's 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 2023 and 2024 in Table V-1. Tables V-2 and V-3 show the calculations of the FY 2023 and 2024 rate using a closed 15-year layered amortization approach.

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, 2021**	**June 30, 2022**
Fiscal Year	**2023**	**2024**
Normal Cost Rate	17.20%	17.23%
UAL Rate	21.76%	29.21%
Expense Rate	0.35%	0.35%
Total County Rate	39.31%	46.79%

SECTION V – CONTRIBUTIONS

Table V-2
Development of UAL Amortization Layer

		June 30, 2021 (for FY 2023)	June 30, 2022 (for FY 2024)
1.	**Present Value of Future Benefits**		
	a. Active Employees	$ 1,306,894,739	$ 1,432,254,677
	b. DROP	191,182,141	212,138,365
	c. Retired Members	1,327,125,571	1,436,229,037
	d. Vested Terminated and Inactive Members	16,825,600	20,662,833
	e. Total Present Value	$ 2,842,028,051	$ 3,101,284,912
2.	**Present Value of Future Normal Costs**		
	a. County Portion	$ 285,837,371	$ 313,185,539
	b. Employee Portion	114,002,206	124,854,387
	c. Total Present Value	$ 399,839,577	$ 438,039,926
3.	**Actuarial Liability (1) – (2)**	$ 2,442,188,474	$ 2,663,244,986
4.	**Actuarial Value of Assets**	$ 2,069,254,787	$ 2,081,470,660
5.	**Unfunded Accrued Liability (UAL)**	$ 372,933,687	$ 581,774,326
6.	**Oustanding Prior Bases (see Table V-4)**	385,003,229	356,393,081
7.	**New Base at July 1, 2021//2022**	(12,069,542)	225,381,245
8.	**Expected County Contribution FY 2022//2023 (County Rate x Expected Payroll)**	72,936,283	80,008,350
9.	**Employer Normal Cost Payments**	(31,913,597)	(35,069,072)
10.	**Expense Payments (using 0.35% assumption)**	(649,405)	(712,372)
11.	**Net Contribution to apply to UAL**	40,373,281	44,226,906
12.	**Amortization of prior bases (from Table V-4)**	42,026,764	38,683,083
13.	**Excess UAL Payment (11 - 12)**	$ (1,653,483)	$ 5,543,823
14.	**Remaining New Base One Year Later (7 - 13, with interest)**	$ (11,175,860)	$ 234,866,607
15.	**14-year/15-year Amortization Factor**	10.3966	10.9262
16.	**New UAL Amortization Layer (14 / 15)**	$ (1,074,957)	$ 21,495,781
17.	**Next Year Amortization of Bases (from Table V-4)**	42,364,007	39,304,605
18.	**Total UAL Payments (16 + 17)**	$ 41,289,050	$ 60,800,386
19.	**Estimated Payroll**	$ 189,718,911	$ 208,114,486
20.	**UAL as a % of Payroll**	21.76%	29.21%

SECTION V – CONTRIBUTIONS

Table V-3
Schedule of Amortization Bases

Type of Base	Date Established	June 30, 2022 Outstanding Amount	FY 2023 Amortization Payment	June 30, 2023 Outstanding Amount[1]	Amortization Years	FY 2024 Amortization Payment
1. Reduce Disability Offset to 30%	7/1/2008	$ 235,552	$ 243,372	$ -	0	$ -
2. Assumption Changes	7/1/2010	959,663	344,840	668,152	2	352,599
3. Reduce Disability Offset to 25%	7/1/2013	530,453	101,453	461,437	5	103,736
4. Reduce Disability Offset to 15%	7/1/2014	1,212,672	202,924	1,084,867	6	207,490
5. Assumption Changes	7/1/2016	16,471,270	2,050,047	15,464,974	9	2,096,173
6. Unfunded Base	7/1/2018	272,061,364	29,359,960	260,090,827	11	30,020,559
7. New UAL Layer 2019	7/1/2019	15,512,822	1,575,921	14,931,698	12	1,611,379
8. New UAL Layer 2020	7/1/2020	60,585,145	5,827,418	58,653,760	13	5,958,535
9. New UAL Layer 2021	7/1/2021	(11,175,860)	(1,022,852)	(10,873,421)	14	(1,045,866)
Total		**$ 356,393,081**	**$ 38,683,083**	**$ 340,482,294**		**$ 39,304,605**

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

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, 2021 and June 30, 2022 are exhibited in Table VI-1, which also includes a reconciliation of liabilities determined as of the prior valuation, June 30, 2021 to the liabilities as of June 30, 2022.

Table VI-2 is a history of gains and losses in Accrued 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 26, 2022 for the required disclosures under GASB Statement No. 67.

SECTION VI – ACCOUNTING STATEMENT INFORMATION

Table VI-1
Accounting Statement Information

		June 30, 2021	June 30, 2022
A.	**FASB ASC Topic 960 Basis**		
1.	Present Value of Benefits Accrued and Vested to Date		
a.	Members Currently Receiving Payments	$ 1,327,125,571	$ 1,436,229,037
b.	Vested Terminated and Inactive Members	16,825,600	20,662,833
c.	DROP	191,182,141	212,138,365
d.	Active Members	583,112,297	634,396,153
e.	Total PVVB	$ 2,118,245,609	$ 2,303,426,388
2.	Present Value of Non-Vested Accrued Benefits for Active Members	90,350,864	103,146,765
3.	Total Present Value of Accrued Benefits	$ 2,208,596,473	$ 2,406,573,153
4.	Assets at Market Value	2,165,025,555	1,924,536,685
5.	Unfunded Present Value of Accrued Benefits, But Not Less Than Zero	$ 43,570,918	$ 482,036,468
6.	Ratio of Assets to Value of Benefits (4) / (3)	98.0%	80.0%

B.	**Statement of Changes in Present Value of Accrued Benefits**	
	Actuarial Present Value of Accrued Benefits as of July 1, 2021	$ 2,208,596,473
	Increase (Decrease) During Years Attributable to:	
	Passage of Time	$ 144,874,428
	Benefit Paid – FY 2022	(124,617,310)
	Assumption Changes	0
	Benefit Change	0
	Benefits Accrued, Other Gains/Losses	177,719,562
	Net Increase (Decrease)	$ 197,976,680
	Actuarial Present Value of Accrued Benefits as of June 30, 2022	$ 2,406,573,153

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	*Gain (or Loss) for Year ending June 30,* 2017	2018	2019	2020	2021	2022
Investment Income	$ (19,058,604)	$ (9,182,282)	$ (22,760,419)	$ (67,142,912)	$ 56,635,384	$ (78,466,988)
Combined Liability Experience	(6,047,672)	1,127,589	7,935,310	6,625,376	4,252,565	(136,998,391)
Gain (or Loss) During Year from Financial Experience	$ (25,106,276)	$ (8,054,693)	$ (14,825,109)	$ (60,517,536)	$ 60,887,949	$ (215,465,379)
Non-Recurring Items	(839,465)	(956,369)	0	0	(43,241,861)	0
Composite Gain (or Loss) During Year	**$ (25,945,741)**	**$ (9,011,062)**	**$ (14,825,109)**	**$ (60,517,536)**	**$ 17,646,088**	**$ (215,465,379)**

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

Valuation Date June 30,	(1) Active Member Contributions	(2) Retirees Vested Terms, Beneficiaries & DROP	(3) Active Members (Employer Financed Portion)	Reported Assets[1]	Portion of Accrued Liabilities by Reported Assets (1)	(2)	(3)
2017	$ 154,777,842	$ 1,046,091,139	$ 832,820,471	$ 1,683,381,052	100%	100%	58%
2018	168,602,734	1,097,926,481	859,320,715	1,778,267,298	100%	100%	60%
2019	169,786,637	1,156,254,071	883,389,088	1,859,253,613	100%	100%	60%
2020	175,048,915	1,211,787,816	907,220,069	1,896,388,193	100%	100%	56%
2021	170,599,835	1,327,125,571	944,463,068	2,069,254,787	100%	100%	61%
2022	177,561,366	1,436,229,037	1,049,454,583	2,081,470,660	100%	100%	45%

[1] Reported Assets are the actuarial value of assets in this demonstration.

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, 2021.

Data reported in this Appendix is as of the December 31, 2021 data collection date. Covered payroll and benefits in pay status reported elsewhere in this report have been adjusted to approximate the June 30, 2022 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.

APPENDIX A – MEMBERSHIP INFORMATION

Summary of Membership Data as of December 31, 2021

Active Members [1]				
Plan	Count	Average Age	Average Service	Average Salary
A	0	0.00	0.00	$ 0
B	12	55.11	26.82	115,638
C	0	0.00	0.00	0
D	1,107	44.82	17.70	111,812
E	517	34.08	5.85	80,123
F	232	29.34	1.08	61,636
Total	1,868	39.99	12.41	$ 96,834

[1] Excludes DROP participants.

Inactive Members and DROP Participants	Count	Total Annual Benefit	Average Monthly Benefit
Service Retirement [1]			
Basic Benefit	1,368	$ 95,126,489	$ 5,795
Pre-62 Supplement	39	1,380,299	2,949
Pre-Social Security Supplement	787	6,319,945	669
Service-Connected Disability [2]	151	$ 7,800,668	$ 4,305
Ordinary Disability	15	$ 284,751	$ 1,582
Beneficiaries	49	$ 1,990,685	$ 3,386
DROP	136	$ 10,825,831	$ 6,633
Vested Former Members [3]	124	$ 2,144,436	$ 1,441

[1] Supplements shown include only amounts currently payable. For members who are in Plan B, and have not yet attained age 55, this means their pre-62 supplement will double in future years.
[2] Benefits are net of offsets for Workers' Compensation and Social Security.
[3] Benefits are payable at age 55.

APPENDIX A – MEMBERSHIP INFORMATION

Data Reconciliation from June 30, 2021 to June 30, 2022

	Active	DROP	Terminated Vested	Retired	Service-Connected Disability	Ordinary Disability	Beneficiary	Total
Participant count as of July 1, 2021	**1,909**	**128**	**97**	**1,308**	**151**	**16**	**43**	**3,652**
New Hires / Re-hires	122							**122**
Terminated Vested	(30)		30					**0**
DROP	(57)	57						**0**
Retired	(26)	(49)	(1)	76				**0**
Deceased with beneficiary	(1)			(3)			8	**4**
Deceased without beneficiary	(3)			(13)	(1)	(1)	(2)	**(20)**
Benefits Expired								**0**
Ordinary Disability								**0**
Service-Connected Disability	(1)				1			**0**
Return of Contributions	(45)		(2)					**(47)**
Corrections								**0**
Change	(41)	8	27	60	0	(1)	6	**59**
Participant count as of June 30, 2022	**1,868**	**136**	**124**	**1,368**	**151**	**15**	**49**	**3,711**

APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Participants - - 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
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	1	0	1
50 to 54	0	0	0	0	0	2	5	0	7
55 to 59	0	0	0	0	0	0	2	1	3
60 to 64	0	0	0	0	0	0	0	0	0
65 & up	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	2	9	1	12

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
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	126,831	0	126,831
50 to 54	0	0	0	0	0	210,003	609,236	0	819,239
55 to 59	0	0	0	0	0	0	244,218	98,684	342,902
60 to 64	0	0	0	0	0	0	0	0	0
65 & up	0	0	0	0	0	0	98,684	0	98,684
Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 210,003	$ 1,078,968	$ 98,684	$ 1,387,655

APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Participants - - 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	0	0	0	0	0	0	0	0
25 to 29	0	0	1	1	0	0	0	0	2
30 to 34	0	0	16	50	3	0	0	0	69
35 to 39	0	1	16	126	84	0	0	0	227
40 to 44	0	0	8	73	154	51	1	0	287
45 to 49	0	0	2	34	82	106	19	0	243
50 to 54	0	0	0	19	61	86	46	3	215
55 to 59	0	0	1	3	21	10	10	4	49
60 to 64	0	0	0	3	4	3	1	2	13
65 & up	0	0	0	0	1	0	1	0	2
Total	0	1	44	309	410	256	78	9	1,107

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
25 to 29	0	0	50,009	88,280	0	0	0	0	138,289
30 to 34	0	0	1,443,542	5,008,203	321,660	0	0	0	6,773,406
35 to 39	0	81,421	1,419,064	12,495,110	9,370,883	0	0	0	23,366,478
40 to 44	0	0	711,982	7,082,994	17,027,805	6,490,933	110,782	0	31,424,496
45 to 49	0	0	164,643	3,270,304	9,112,620	13,449,027	2,759,656	0	28,756,251
50 to 54	0	0	0	1,868,228	6,500,738	10,814,797	6,390,124	490,003	26,063,891
55 to 59	0	0	45,181	294,229	2,228,419	1,175,985	1,388,273	528,724	5,660,811
60 to 64	0	0	0	280,101	364,879	312,096	174,973	240,993	1,373,042
65 & up	0	0	0	0	103,808	0	115,589	0	219,397
Total	$ 0	$ 81,421	$ 3,834,421	$ 30,387,450	$ 45,030,813	$ 32,242,839	$ 10,939,397	$ 1,259,720	$ 123,776,061

APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Participants - - 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	0	11	0	0	0	0	0	0	11
25 to 29	1	73	62	0	0	0	0	0	136
30 to 34	0	47	131	0	0	0	0	0	178
35 to 39	0	24	91	1	0	0	0	0	116
40 to 44	1	11	29	0	0	0	0	0	41
45 to 49	0	2	15	0	0	0	0	0	17
50 to 54	0	5	2	0	0	0	0	0	7
55 to 59	0	3	6	0	0	0	0	0	9
60 to 64	0	0	1	0	0	0	0	0	1
65 & up	0	0	1	0	0	0	0	0	1
Total	2	176	338	1	0	0	0	0	517

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	$ 773,366	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 773,366
25 to 29	12,714	5,136,018	5,042,060	0	0	0	0	0	10,190,792
30 to 34	0	3,309,397	11,127,483	0	0	0	0	0	14,436,880
35 to 39	0	1,723,201	8,079,730	86,947	0	0	0	0	9,889,877
40 to 44	13,116	760,829	2,509,173	0	0	0	0	0	3,283,117
45 to 49	0	139,396	1,174,182	0	0	0	0	0	1,313,578
50 to 54	0	539,032	152,856	0	0	0	0	0	691,888
55 to 59	0	201,266	472,119	0	0	0	0	0	673,386
60 to 64	0	0	85,246	0	0	0	0	0	85,246
65 & up	0	0	85,246	0	0	0	0	0	85,246
Total	$ 25,830	$ 12,582,505	$ 28,728,096	$ 86,947	$ 0	$ 0	$ 0	$ 0	$ 41,423,377

APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Participants - - Plan F

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	40	31	0	0	0	0	0	0	71
25 to 29	36	55	0	0	0	0	0	0	91
30 to 34	16	17	0	0	0	0	0	0	33
35 to 39	7	13	0	0	0	0	0	0	20
40 to 44	0	2	0	0	0	0	0	0	2
45 to 49	2	1	0	0	0	0	0	0	3
50 to 54	5	3	0	0	0	0	0	0	8
55 to 59	2	0	0	0	0	0	0	0	2
60 to 64	2	0	0	0	0	0	0	0	2
65 & up	0	0	0	0	0	0	0	0	0
Total	110	122	0	0	0	0	0	0	232

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	$ 2,420,019	$ 1,946,236	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 4,366,255
25 to 29	2,225,403	3,369,158	0	0	0	0	0	0	5,594,561
30 to 34	1,006,963	1,074,661	0	0	0	0	0	0	2,081,624
35 to 39	358,115	766,230	0	0	0	0	0	0	1,124,345
40 to 44	0	123,157	0	0	0	0	0	0	123,157
45 to 49	94,939	56,933	0	0	0	0	0	0	151,872
50 to 54	404,512	171,514	0	0	0	0	0	0	576,025
55 to 59	142,558	0	0	0	0	0	0	0	142,558
60 to 64	139,164	0	0	0	0	0	0	0	139,164
65 & up	0	0	0	0	0	0	0	0	0
Total	$ 6,791,672	$ 7,507,889	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 14,299,561

APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Participants - - Total

COUNTS BY AGE/SERVICE

	Service								
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	Total
Under 25	40	42	0	0	0	0	0	0	82
25 to 29	37	128	63	1	0	0	0	0	229
30 to 34	16	64	147	50	3	0	0	0	280
35 to 39	7	38	107	127	84	0	0	0	363
40 to 44	1	13	37	73	154	51	1	0	330
45 to 49	2	3	17	34	82	106	20	0	264
50 to 54	5	8	2	19	61	88	51	3	237
55 to 59	2	3	7	3	21	10	12	5	63
60 to 64	2	0	1	3	4	3	1	2	16
65 & up	0	0	1	0	1	0	2	0	4
Total	112	299	382	310	410	258	87	10	1,868

TOTAL SALARY BY AGE/SERVICE

	Service								
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	Total
Under 25	$ 2,420,019	$ 2,719,602	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 5,139,621
25 to 29	2,238,117	8,505,177	5,092,069	88,280	0	0	0	0	15,923,643
30 to 34	1,006,963	4,384,058	12,571,025	5,008,203	321,660	0	0	0	23,291,909
35 to 39	358,115	2,570,852	9,498,794	12,582,057	9,370,883	0	0	0	34,380,701
40 to 44	13,116	883,986	3,221,155	7,082,994	17,027,805	6,490,933	110,782	0	34,830,771
45 to 49	94,939	196,329	1,338,826	3,270,304	9,112,620	13,449,027	2,886,487	0	30,348,532
50 to 54	404,512	710,546	152,856	1,868,228	6,500,738	11,024,801	6,999,360	490,003	28,151,044
55 to 59	142,558	201,266	517,300	294,229	2,228,419	1,175,985	1,632,491	627,407	6,819,655
60 to 64	139,164	0	85,246	280,101	364,879	312,096	174,973	240,993	1,597,452
65 & up	0	0	85,246	0	103,808	0	214,273	0	403,327
Total	$ 6,817,503	$ 20,171,816	$ 32,562,517	$ 30,474,396	$ 45,030,812	$ 32,452,842	$ 12,018,366	$ 1,358,403	$ 180,886,655

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 2022		
Age	Male	Female
50	26	17
55	36	32
60	65	55
65	104	83
70	162	129
75	283	217
80	518	377
85	959	654
90	1,600	1,141
95	2,342	1,837
100	3,211	2,850

The PubS-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.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

b. Beneficiary/Survivor Mortality

Annual Deaths Per 10,000 Members Mortality Projected to 2022		
Age	Male	Female
20	4	2
25	4	2
30	6	3
35	9	4
40	11	5
45	12	6
50	47	36
55	61	41
60	84	49
65	114	65
70	170	103
75	279	180
80	490	330
85	872	619
90	1,494	1,170
95	2,283	1,911
100	3,211	2,850

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.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

c. Active Separation from Service Due to Death

Annual Deaths Per 10,000 Members Mortality Projected to 2022		
Age	Male	Female
20	5	2
25	5	3
30	7	4
35	8	5
40	9	6
45	10	7

The PubS-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.

d. Disabled Mortality

Annual Deaths Per 10,000 Members Mortality Projected to 2022		
Age	Male	Female
45	33	22
50	43	30
55	62	56
60	98	92
65	143	119
70	207	168
75	327	290
80	549	495

The PubS-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.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

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

Annual Terminations Per 1,000 Members	
Service	**Male and Female**
0	129
5	32
10	16
15	8
20	8
25	0

f. Disability

Annual Disabilities Per 10,000 Members[1]	
Age	**Male and Female**
20	3
25	4
30	5
35	7
40	10
45	17
50	28
55	40
60	40

[1] Disabilities are assumed to be all service connected. Of these, 38% are assumed to receive Workers' Compensation benefits. 5% of all service-connected disabilities are at the 90% severe level.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

g. Retirement/DROP

Years of Service	Retirement/DROP[1]
5-24	20%
25	35
26	25
27	35
28	30
29	30
30	30
31	30
32	30
33	30
34	30
35+	100

[1] 75% of those who leave under this decrement are assumed to DROP, with the other 25% taking immediate retirement.

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

Years of Service	Merit/Seniority Increase
0	6.50%
5	3.00%
10	2.00%
15	1.75%
20	1.50%
25	0.50%
30+	0.00%

i. Family Composition

For purposes of valuing the pre-retirement death benefit, an assumption is made concerning how many employees are married. The assumption used in this valuation is 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.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

2. Economic Assumptions

a.	Rate of Investment Return:	6.75%
b.	Rate of General Wage Increase:	2.25%[1]
c.	Rate of Increase in Cost of Living:	2.10%[2]
d.	Rate of Increase in Total Payroll (for Amortization):	2.25%
e.	Administrative Expenses as a Percentage of Payroll:	0.35%

[1] General Wage Increase assumption applies for projecting contributions and developing Social Security benefits.

[2] 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. Changes Since Last Valuation

None

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Funding 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.

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 produce 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.

5. Changes Since Last Valuation and Rationale for Changes

A change was made in this year's 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.

This change was adopted by the Board as a means of stabilizing the County contribution rate.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Membership

The plan covers uniformed employees including non-clerical employees of the Fire and Rescue Department, Park Police Department, Sheriff's Department, Helicopter Pilots, Department of Public Safety Communications, and Game Wardens, who are not covered by the Fairfax County Police Officers Retirement System, the Employees' Retirement System, or the VRS. In order to join, an eligible employee must take a physical examination, agree to make required contributions, and may not be within five years of his normal retirement date.

Plan A members as of July 1, 1981 were given the opportunity to join Plan B at that time. Between July 1, 1981 and March 31, 1998, all members were enrolled in Plan B. As of April 1, 1998, Plan A members were given the opportunity to join Plan C, and Plan B members were given the opportunity to join Plan D. On and following April 1, 1998, all members were enrolled in Plan D. Members hired on or after January 1, 2013 and prior to July 1, 2019, all members are enrolled in Plan E. Members hired on or after July 1, 2019 will join Plan F.

2. Member Contributions

Plan A: 4% of compensation up to Social Security wage base and 5-3/4% of compensation in excess of wage base
Plan B: 7.08% of compensation up to Social Security wage base and 8.83% of compensation in excess of wage base
Plan C: 4% of compensation
Plan D, E, and F: 7.08% 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. Also, 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

Compensation includes salary paid due to regularly scheduled hours worked, holiday hours worked, administrative emergency leave worked, and shift differential paid. It does not include premium pay such as all overtime. Pay at the rate of final salary is credited for any unused sick leave period. Average final compensation is the average over the high 36 consecutive months (or shorter period of total service).

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Participants whose average final compensation was affected by the 1992-1993 step freeze shall have their average final compensation adjusted.

5. Social Security Wage Base

The amount of wages subject to Social Security (FICA) taxes ($147,000 in 2022)

6. Social Security Breakpoint

The Social Security breakpoint is the average of past and future Social Security wage bases over an employee's career.

7. Normal Retirement

Eligibility

(i) age 55 with six years of service, or
(ii) completion of 25 years of service

Benefit

Plan A Benefit: 2.0% of average final compensation multiplied by credited service, plus, starting at age 55, 100% of the Pre-62 Supplement defined below.

Plan B Benefit: 2.0% of average final compensation multiplied by credited service, plus 50% of the Pre-62 Supplement defined below until age 55 and 100% of the supplement after age 55.

Pre-62 Supplement: Estimated Primary Social Security Benefit multiplied by a ratio, not to exceed one of the years of credited service as of the date of the calculation, to 25. If the member was hired prior to July 1, 1976, this ratio is equal to one. The supplement is reduced by the Social Security benefits the member is eligible to receive.

Pre-Social Security Supplement (Plans A&B): 0.2% of average final compensation multiplied by credited service.

Plans C, D, and E Benefit: 2.5% of average final compensation multiplied by credited service.

Pre-Social Security Supplement (Plans C, D, and E): 0.3% of average final compensation multiplied by credited service.

All benefits above increased by 3%.

Plan F Benefit: 2.5% of average final compensation multiplied by credited service.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Plan F: Early Age Option of 0.3% 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

20 years of service

Benefit

Plans A and B: Normal retirement benefit, excluding the Pre-Social Security supplement, calculated using average final compensation and service at early retirement, actuarially reduced.

Plan A: The Pre-62 Supplement is not provided until age 55; the full supplement is provided at this time.

Plan B: Prior to age 55, one-half of the Pre-62 Supplement is provided. At age 55, the full supplement is paid.

Plans C, D, and E: Normal retirement benefit calculated using average final compensation and service at early retirement, actuarially reduced.

All benefits above increased by 3%.

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

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).

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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

40% of final compensation less 100% of Virginia Workers' Compensation benefit

If severely disabled, the benefit is 90% of final compensation with the same offsets for Social Security and Workers' Compensation.

11. Ordinary Disability

Eligibility

Five years of credited service

Benefit

Plans A, B, C, D, and E: 2% of average final compensation times years of credited service; maximum is 60% of average final compensation, increased by 3%

Plan F: 2% of average final compensation times years of credited service; maximum is 60% of average final compensation

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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 five years of service

Benefit

Return of employee contributions with interest, payable in a lump sum

Eligibility

Five 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, excluding the Pre-Social Security Retirement Age supplement, 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 age 60.

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 55 or actuarially reduced and payable at early retirement age. No supplements are payable.

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

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

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 for the Washington metropolitan area. 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-62 or Pre-Social Security Supplements or to deferred vested benefits prior to benefit commencement. For Plan A and C benefits, cost-of-living adjustments do not apply to service retirement benefits until the member has attained age 55.

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